

TRENDS OF
SOCIO-ECONOMIC CHANGE IN INDIA
1871-1961

Proceedings of a Seminar

Edited by
M. K. CHAUDHURI



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PREFACE

The present volume of the Transactions of the Indian Institute of Advanced Study contains the papers presented at and the proceedings of our seventh seminar, the one on Trends of Socio-Economic Change in India : 1871-1961, held at the Institute beginning Monday, 11 September through to Saturday, 23 September, 1967. Editing the papers and proceedings, preparing copies for and seeing the volume through the press took a long time than anticipated, which explains the delay in the publication of the volume. Nevertheless, we feel very sorry for this delay.

This volume has been edited by Dr. M. K. Chaudhuri, one of our esteemed Fellows, to whom our grateful thanks are due. He also undertook to write an Introduction to the volume. We appreciate very much the trouble he has taken in this regard.

We hope, the volume will be found useful by those who are interested in the trends of social and economic change in India.

Simla
August 2, 1969.

NIHARRANJAN RAY
General Editor

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INTRODUCTION

The Indian Institute of Advanced Study held a seminar on "Trends of Socio-Economic Change in India, 1871-1961", beginning Monday, September 11 through to Saturday, September 23, 1967 last. More than 40 scholars belonging to the disciplines of History, Sociology, Political Science and Economics responded to the invitation of the Director and presented papers at and participated in the discussions that followed the presentation of papers. Admittedly it was a multi-disciplinary seminar, the general approach having been mainly historical and sociological. The seminar devoted itself to an analysis and interpretation of the data on the subject under several important heads, namely, trends of population growth, land organisation (ownership and possession of land, etc.) and agricultural labour, pattern of agricultural changes of land use, crop pattern, technique of production, output etc., growth of manufacturing industries and ownership and control of industries, industrial labour, pattern of change in occupational distribution, employment, national income, and educational structure and pattern.

The year 1871, it is well known, was marked by the attempt to implement the scheme of an all-India census. This was also the year that saw the beginnings of the Statistical Survey of India under the general planning, guidance and supervision of W. W. Hunter who was directly responsible for the production of the massive volumes of the Imperial Gazetteer of India and indirectly of the long series of our District Gazetteers. These volumes along with those of the Census Reports of India, prepared, printed and published roughly about every ten years from 1872 to 1961, but more particularly from 1931 to 1961 under the general planning guidance and supervision of such experts as J. H. Hutton and Ashok Mitra, constituted an unbroken sequence and formed undoubtedly the largest single source of information relating to trends of socio-economic change in modern India.

The object of the seminar was to sift, analyse and exploit this vast storehouse of material information along with other relevant sources and source-materials like reports of committees and commissions appointed from time to time by Government and other agencies, so as to make them yield the main trends and lineaments of socio-economic change in India during the last well-nigh one century that witnessed the rise and fulfilment of nationalism in this country. It was hoped that the seminar would help better understanding of our current socio-economic problems and more objective planning for the

future. Indeed, this was not only spelt out by the Director's invitation letter to the prospective participants but also in his Introductory Address which claimed that the theme of the seminar was certainly historical but it was something more than mere history insofar as it related very closely to contemporary socio-economic life and had relevance to our socio-economic planning of today.

The business session of the seminar started with the presentation of an exhaustive bibliography of socio-economic literature of the period, which is proposed to be published by the Institute in the shape and form of an independent volume. The bibliography presented was subjected to a critical discussion in course of which certain limitations were pointed out, one of the more serious omissions being records of imaginative literature and writings of socially conscious critical and creative writers belonging to the period. Indeed, Niharranjan Ray pointed out that mere factual and statistical data and their interpretations were not always adequate enough for presentation of an accurate picture of the socio-economic situation of the period.

An introduction is not perhaps the place to summarise the major points that were raised or the main issues that were discussed. These would be clear to anybody who would take the trouble of going through the papers and following the reports of the discussions. All that is being attempted here is to high-light some of the major themes that were taken up by the seminar.

METHODOLOGICAL PROBLEMS

In some of the papers certain questions were raised regarding suitable methodology of investigation in social research. For instance, Indra Deva deplored that social science in India had yet no adequate conceptual and methodological framework for a proper study of rural society in a peasant civilization like that of India. Most sociologists studied modern industrialised societies in the main and anthropologists concentrated on the study of primitive cultures. He pointed out further that the common method of holistic study of single village was based on erroneous assumptions and had serious limitations. The peasant village was not a socio-cultural whole like a primitive tribe and could not be studied by itself. O. P. Sharma supported Indra Deva when he said that the village was not a socio-cultural whole and needed to be studied in terms of its regional inter-linkages. K. Mukerji and V. K. Bawa pointed to operational reasons for regarding village as a unit. The general consensus was that a scientific conceptual framework was called for although during discussions no such framework emerged. In this connection Niharranjan Ray questioned the validity of international comparison of metropolitan areas as was done by Supriya Singh in her paper on Indian metropolitan cities. A. M. Shah questioned whether the joint family was an unchanging element in village India and whether one could use western

concepts of "family" and "house-hold" to an analysis of relevant Indian situations. Niharranjan Ray's suggestion for acceptance of Indian traditional concepts like *parivara*, *kutumba*, etc. which he regarded as more adequate for the understanding of certain aspects of the social processes in India, was considered by a number of participants to be one that deserved consideration.

Victor D'Souza's analysis of socio-economic conditions and the rate of employment of women in India generated some heat in the discussions during the seminar. A number of participants including sociologists, objected to the employment of single-category index for explaining the trends of growth and/or decline of female employment. It was pointed out that there was a multiplicity of motivating factors along with the economic motivation which was the only factor considered by D'Souza.

The seminar thus seems to have reached the conclusion that there was a great need of evolving proper methodologies in social research relating to socio-economic conditions in India. It sounded a warning against uncritical acceptance of concepts developed in the west to the analysis of the Indian situation.

GENERAL REVIEW OF THE PERIOD

The general review of the period attempted by Durgaprasad Bhattacharya revealed a darker side of the picture, but failed to bring out the contradictions and conflicting trends that marked the colonial situation in this period. It was pointed out that the colonial rule was in its totality undoubtedly a curse inasmuch as it meant deprivation of the opportunity for participation in the great strides forward made possible by the discoveries of science, culminating in the Industrial Revolution in Europe. Yet judged by the rate of progress made in the past, the question was raised if it was only a period of stagnation, was there no progress achieved in the fields of secular education, industrialisation, progressive legislation and in various other fields? The question was partly answered by B. N. Das Gupta in his paper on educational structure and pattern and partly by participants like Ajit Das Gupta and S. K. Sen who attempted to show in their papers that the labour productivity rose by 50% from 1881 to 1961, and the growth of coal, iron and steel industries though they were still in the initial stage of development, laid the basis of India's industrial advance. Besides, Nirmal Kumar Bose pointed out in course of the discussion that while statistics of production might present a stagnant picture of the progress of industrialisation, social anthropologists would refuse to throw up their hands in despair as they might still notice significant changes hidden under the apparent stagnant surface in the choice of occupation by men in modern industry which was different from those prescribed by caste traditions. A new system of production based upon science and technology and offering

freedom of choice by the individual marked the beginning of the loosening of traditional ties and was a sure sign of progress. It was not therefore surprising that a number of participants objected to Bhattacharya's one-sided presentation of the picture.

POPULATION

Sudhansu Bhusan Mukherjee presented a very interesting finding on the growth of population, in course of which he said that the Indian population revealed by and large the characteristics of stability prior to 1921 and of quasi-stability since that date. The remarkable rise in the growth rate in the decade 1951-1961 generated by the decline in mortality corroborated and strengthened his hypothesis.

MODES OF PRODUCTION

In his Inaugural Address Nirmal Kumar Bose drew attention to the existence of several methods of production existing side by side. He also pointed out that they did not co-exist in a peaceful manner but each one of them was struggling for survival against the rest. The outcome of this struggle was not difficult for the economic historian to guess. Yet the struggle and the interaction among these various modes of production added range and depth to the broad spectrum of the layers that pervaded Indian society throughout the last century. While the inhabitants in the Great and Little Andamans lived by hunting, fishing and collecting, in certain other parts of India, namely, in NEFA, two districts of Nagaland and in parts of Orissa and M. P., for instance, there were people who lived by shifting cultivation. The third mode of production which supported most of the population was agriculture by plough supplemented by household industries. The fourth and the growing system of production was the capitalistic mode in industries, which was also gradually becoming the main characteristic of agricultural production in the countryside as it shed its caste-based non-competitive form of organisation. But it was pointed out that non-competitive form of organisation for production was not peculiar to India alone as Nirmal Kumar Bose seemed to think. This was found in many pre-capitalistic organisations of production all over the world. What was peculiar to India was its caste-base which definitely contributed to and still contributes to much that was negative in India.

STAGNANT AGRICULTURE

Though the study of B. B. Sarkar was confined to West Bengal only, he produced evidence to show that absence of opportunities in the industrial sector compelled people to remain confined to the land. Under this situation one could expect a rapid rise in double-cropping to grow more from the same

acreage, yet this made no rapid advance even in irrigated areas where technically the conditions were more favourable. Area under double-cropping in West Bengal as percentage of net sown area increased from 11.6 per cent in 1900-01 to 16.3 per cent in 1960-61.

B. M. Bhatia demonstrated in his paper how foodgrains were exported even when there was a famine within the country. The colonial administration was more concerned with imperial necessities even if millions were dying as a result. Yet the suggestion by Bhatia to increase the area under foodgrains while reducing the area under cultivation for cash crops to solve the shortage of food did not find ready acceptance with economists because of the importance of cash crops, besides the existence of opportunity to increase production of foodgrains from the same acreage by investing in technical inputs. Indeed, the green revolution in the countryside in various parts of the country had demonstrated the viability of this alternative approach.

Land Reform

In their joint paper S. S. Johl and Gurbachan Singh questioned the rationality of land reform in Punjab since the ceiling on land holding and malafide transfer had made available only 2.19% of the total owned acreage for distribution among the landless agriculturists out of which only 7800 holdings of viable farm units (30 standard acres or 60 ordinary acres according to the Act) could be created. Apart from the fact whether a viable farm unit in Punjab, where 13.95% of the cultivators were landless tenants showing thereby clearly the need for intensive farming, could be as big as 30 standard acres, it seemed that the question should not have been whether land reform was necessary but whether a much lower ceiling on land holding and prevention of malafide transfer were called for. Their assertion that the land reform created tenurial uncertainty for 86.05% cultivators and was thus a disincentive seemed to be very curious in view of the fact that according to their own statistics only 0.83% of the cultivators owning 15.15% of the owned acreage had holdings above the ceiling limit.

It was not surprising, therefore, that their entire approach and methodology were questioned by Asit Kumar Bhattacharya, Priyatosh Maitra, Pranabranjan Ray, B. K. Roy Burman and Karunamoy Mukherjee among many others who participated in the discussion on this paper.

Rise of capitalism in agriculture

H. R. Ghosal approvingly referred to the finding of Baljit Singh that land reforms had obviously not brought about any institutional change in the structure of cultivation, yet he said in the same breath that capitalist farming had gained momentum since Independence and particularly after the introduction of land reforms. It appeared that there was some contradiction in

these two propositions. In fact, the most revolutionary change that had happened in the agricultural scene in India was the development of capitalism in agriculture as a result of land reform measures.

Changes in tribal land organisation

Kunwar Suresh Singh tried to show in his papers how tribal tenurial practices were being replaced by new forms prevailing in the plains, how monetisation was invading tribal economy and how agriculture was gradually becoming like any other business. B. K. Roy Burman produced another case study to show how culture contacts changed the world view of tribals, such as the Totas, and how economic necessities compelled the tribals to give up their traditional shifting culture in favour of agriculture with the plough. Some seemed to deplore all these changes without realising that the preservation of traditions did not necessarily mean retention of outmoded forms of production which were responsible for unwanted economic backwardness of the tribal people.

Industrialisation

While S. K. Sen analysed the importance of the growth of coal, iron and steel industries and Ajit Das Gupta pointed to the rise in labour productivity by 50% during the period between 1881 and 1961, Durgaprasad Bhattacharya analysed the degree of concentration in manufacturing industry. Paresh Chattopadhyay pointed out that it was state capitalism, and not socialism, that was growing in India since Independence. S. K. Sen attempted to show in his paper how the British bureaucrat Burdon's proposal to utilise capacity in the ordnance factories in peace time after the first World War was rejected and India continued to be only a good market of ordnance stores and was thus made to serve the imperial interests of Great Britain. In his case study of Assam, Amalendu Guha narrated how a balanced industrialisation in Assam could not take place under the colonial conditions. Whatever income was generated by the tea industry was mostly not spent within the region thus failing to create any linkage effect for multi-sectoral balanced growth. On the other hand over-investment in the same tea industry led to crises of over-production by 1901.

Caste base of entrepreneurs in India

K. N. Sharma pointed out the influence of caste in the growth of entrepreneurs at the initial stage. Only in later stages and more so since Independence was the social base of entrepreneurs in India widened.

EMPLOYMENT

Ajit Das Gupta cited statistics to show that in the years between 1881 and

1961 overall labour force proportion to total population declined by 4%. The question remained, however, whether this was because of a change in age-structure of the population or because of lack of employment opportunity in a stagnant economy. S. B. Mukherjee showed in his paper that the Indian population revealed the characteristics of stability prior to 1921, that is, the age-distribution of both the male and female remained unchanged, and had been revealing characteristics of quasi-stability since 1921, that is, there was a marginal shift in the age-structure. A calculation on the basis of tables given in his paper showed that except for the decade between 1951 and 1961 the age-distribution was such that the proportion of people in the working age (between 15 and 60 years) remained more or less constant varying from 55.52% in 1921 to 57% in 1931. The proportion however declined steeply from 56.28% in 1951 to 53.61% in 1961. Unless one knew specifically during which decade the sharp decline in labour force in proportion to total population took place one was not in a position to answer the question raised. This served only as an illustration to show how further research could correlate facts presented in various papers during the seminar and throw new light on many problems.

COLONIAL URBANIZATION

Pranabranjan Ray analysed the urbanisation of Serampore in colonial situation. He brought out three distinct characteristics of urban growth in Serampore, namely: (i) The workers having retained traditional ties with their native-villages and longing to return there, had hardly any stake in the city; (ii) the industrialists being Calcutta-based had no proper stake in the city; and (iii) the local leaders tended to provide municipal facilities only to their own localities, neglecting completely the settlements of the workers though they filled the coffers of the municipality. Only the second characteristic was peculiar to urbanisation near a metropolitan city. The other characteristics of urbanisation found in Serampore, and the various other features mentioned in the papers of Indra Deva, O. P. Sharma, H. R. Ghosal and Bela Dutta Gupta were common to the process of urbanization in a transitional period from the semi-feudal stage to capitalism.

Many writers seemed to lament the breakdown of the village system under the advance of industrialisation and urbanisation. It appeared, however, that even if these phenomena were colonial in the character of their retardation, they did at least initiate the sort of progress that could be found in any initial stage of industrialisation or urbanisation in the rest of the world.

SLOW GROWTH OF NATIONAL INCOME

While Murari Ghosh evaluated the contribution of Dadabhai Naoroji and Romesh Dutt in revealing the drain on Indian resources and in estimating the

degree of colonial exploitation, Moni Mohan Mukherjee furnished statistics on the growth of national income during this period. The latter rose in the ninety years between 1870 and 1960 at the rate of 1.40% per annum while per capita income rose by only 0.59% per annum. In the same period other nations developed much more rapidly, relegating India to the group of under-developed nations. This was the net effect of colonial administration, it was argued.

PERSPECTIVES

The annual rate of growth of per capita income at 1948-1949 prices in the decade between 1950-51 and 1960-61 has been 1.7% compound. This indicated the utter failure of attempts to develop the economy of the country by following the capitalist path of growth. Hope was expressed that attempts would be made towards giving Indian economic policy a clear socialist content which was so urgently needed for future growth.

It was noticed that there was a certain concentration on the study of the situation in Bengal and a relative paucity of such studies on some other parts of India. This deprived the seminar of the opportunity to discuss adequately the development in all the regions of India. Evidently, many parts of India do not seem to have received the amount of attention from scholars as they should.

Since the period under discussion also included the 14 years after the attainment of Independence it was noted that no attempt was made to clearly analyse the events after Independence and to indicate the perspective lying ahead of us and the tasks that needed to be accomplished to attain national goals. This perhaps underlined the reluctance of the academic community of Indian social scientists to face the complex realities of life since Independence.

I acknowledge with gratitude the help extended to me in editing the volume, by my colleagues Barun De and Arabinda Poddar. I am also grateful to R. K. Sethi, the Publications Officer of the Institute, for his support at various stages of the work. The responsibility for errors and omissions remain, however, entirely mine.

Simla
August 2, 1969

M. K. CHAUDHURI

PART ONE
INAUGURATION

NIHARRANJAN RAY

Introductory Address

MR. President, Professor Bose, distinguished Participants, ladies and Gentlemen :

Most humbly but most respectfully do I welcome you to this Inaugural Session of our Seminar on TRENDS OF SOCIO-ECONOMIC CHANGE IN INDIA from about 1871 to about 1961, that is for about the last one century. The theme of the Seminar is doubtless of historical interest in the main, and history in its widest sense is one of the main fields of intellectual enquiry at this Institute; but at the same time I venture to claim that it is something more than history, that the theme relates itself very closely to our contemporary socio-economic life, and that pragmatically speaking, it has a great relevance to our national socio-economic planning of today. An understanding of our socio-economic past for the last one century is but essential, to my mind, for an adequate understanding and evaluation of what has been happening before our very eyes in this sphere of our life. It is with a view to this that this Seminar has been conceived and planned.

The year 1871, it is well-known, is marked by the attempt to implement a scheme of an all-India Census. This is also the year that saw the beginnings of the Statistical Survey of India under the general planning, guidance, and supervision of Dr. W. W. Hunter who was directly responsible for the production of the massive volumes of the Imperial Gazetteer of India, and indirectly, of the long series of our District Gazetteers. These volumes along with those of the Census Reports of India, printed and published roughly about every ten years from 1872 to 1961, under the general planning and supervision of experts like Dr. J. H. Hutton and Mr. Asok Mitra, in almost

4 *Niharranjan Ray*

an unbroken sequence, but for the Census Volumes for 1941 which could not be prepared and published because of the Second World War, form undoubtedly the largest single source of information relating to trends of socio-economic change in India.

The main object of this Seminar is to sift, analyse and exploit this vast store-house of material information along with other relevant sources and source-materials like reports of various committees and commissions appointed from time to time by Government and other agencies, so as to make them yield the main trends and lineaments of socio-economic change in our country during the last one century, the century that witnessed the rise and fulfilment of the still vital ideology of nationalism in India. It is hoped that this Seminar would help better understanding of and clearer insight into our current socio-economic problems and prospects, and more objective planning for the future. Since the general approach of this Institute to all intellectual problems in the field of Humanities and Social Sciences, is historical and sociological in the main, without any ideological pre-suppositions, we hope we should be able when we come to an end of our deliberations, to sketch in outline at least, an objective picture of our immediate socio-economic past, and of the tracks that we have been laying down for the march towards our socio-economic future. An academic seminar cannot expect to do more.

Keeping this object in view the Seminar is proposed to start with a bibliographical statement giving an idea of the work done in this field of investigation in course of the last eighty years, and a general analysis in outline of the major trends of change. We shall then take up one by one Trends of Population Growth, of Change in the Pattern and Structure of Education, in that of Rural Societies and Urbanisation including Rural-Urban Interaction, Pattern of Change in Occupational Distribution and in Employment with special reference to Industrial Labour, Patterns of Change in Land Organisation and Agriculture, Trends in the Growth of Manufacturing Industries and in the Ownership and Control of such Industries, and finally in National Income. To each topic we propose to devote one full session of four hours. About forty papers covering practically all the major topics have been received to date, from about sixty experts drawn from the fields of economics, statistics, history and sociology, who would be participating at this Seminar for well-nigh one full fortnight at one stretch. We are indeed looking forward to an active and earnest confrontation of minds in a field of intellectual investigation that concerns us most vitally and very immediately. As Director of this Institute and planner and organiser of this seminar this is all I have to say and look forward to.

I am no economist or statistician, nor even a professional sociologist, but a mere student of history, and that too of not so modern a period as the late nineteenth and earlier half of the twentieth century. There can be no doubt

that statistical reports and their interpretation, historical, economic and sociological, are of inestimable value for an understanding of the socio-economic life of India for this period, for, after all, impressionistic opinions of individuals howsoever important and authoritative, can never be the substitute for facts and data yielded by empirical investigation. Yet at the same time one cannot but feel, while going through the vast store-house of materials which are proposed to be drawn upon by this Seminar, that statistical facts and their interpretation are not unoften inadequate in giving an invariably accurate picture of the socio-economic situation of the period, and informing it with the warmth of human life. I sometimes wonder therefore if we could not supplement our knowledge derived from empirically obtained facts and figures, by the records of an altogether different kind, records that our statisticians, economists and even historians would not like to touch with even a pair of tongs, I mean, records of imaginative literature and writings of socially conscious creative and imaginative writers belonging to the period. From the one literature, I claim to know a little of, belonging to this period, I mean, Bengali literature from the seventies of the last to the fifties of this century, I find that here there is a far more realistic picture, undoubtedly based on impression, of the over-all process of disintegration of our socio-economic life and a forecast of progressive deterioration. This could not have been just accidental. I do not know if I am not treading on dangerous grounds, but I cannot help pleading with our colleagues in the fields of history and sociology at any rate, to turn to this neglected source if not for information, at least with a view to gaining some insight and a newer and deeper dimension. And what is true of Bengali literature must also be true of other literatures of India, I am sure.

I must not take more of your time, but before I close I must once more welcome you all in our midst, and thank all those who have cared to respond to our invitation. To our participants we are doubly grateful for their taking the trouble of coming over here from long distances on just an intellectual quest for which this Institute has the privilege to provide the venue and the essential services that go with such a quest.

Thank you once more.

NIRMAL KUMAR BOSE

Inaugural Address

MR. Chairman, Prof. Ray, Ladies and Gentlemen:

I feel delighted to come back once more to the Indian Institute of Advanced Study. I have been associated with it ever since its inauguration. Prof. Ray has been very kind in inviting me to initiate the present seminar on Trends of Socio-Economic Change in India from 1871 to 1961. It has been already indicated in the letter of invitation that this is a period which is covered by the census operations and social and economic changes can be more or less quantified over this period.

Personally, I believe that this task of interpreting the data of different censuses has not been undertaken to an appreciable extent by sociologists or economists. Much remains to be done and I do hope that seminars of the kind the Institute of Advanced Study is initiating today will go a long way in stimulating interest, as well as in bringing together different workers who are in the field in different parts of India.

Our main task in course of the next few days will be to see how much has been done and what would be the most profitable means of utilizing census data in order to describe the changes to which India has been subjected in course of the last 90 years.

Ladies and Gentlemen, you will pardon me if at this stage, while initiating the discussion, I try to place before you in a rather impressionistic manner the different trends which we as social anthropologists have succeeded in discovering in course of our studies of social and cultural changes in India. These are not based upon counting to any large extent. They have quite often been based on small studies undertaken in different parts of India, in which the samples

are spread out rather irregularly over different portions of our stratified society. The kind of picture which anthropologists and sociologists have thus succeeded in building up will perhaps form a kind of introduction to the more accurate quantitative studies which have to be made later on by economists, demographers and other social scientists.

As we look at the whole of India, we observe that only a small fraction of the entire population is involved in industries, while seven or eight times the number are still dependant largely on agriculture and its associated small-scale household industries of the traditional type. Looking at it broadly, we find that in India there are several systems of production existing side by side. They do not co-exist in a peaceful manner but each of them is struggling for survival against the other. I would try to explain by means of concrete examples, for I have not perhaps succeeded in making the meaning very clear.

The A and N Islanders form the part of Indian population. The total population is perhaps no more than one thousand in the Great and Little Andaman, Sentinal Islands, etc. They live completely by hunting, fishing and collecting. We have friendly contacts with a few among them, and an examination of the carrying capacity of land under their system of production appeared to give the results as follows: Between two and three persons can be supported per square mile by hunting and collecting and perhaps no more. In other parts of India, such as NEFA, two districts of Nagaland and scattered portions of Orissa, Madhya Pradesh, etc., there are people who live by shifting cultivation. According to detailed surveys made by the Anthropological Survey of India, roughly between 25 to 30 persons can be supported per square mile by shifting cultivation, if the consumption of food is fixed at a little over 3000 calories a day. But in Mizo land, one of the areas thus surveyed, the actual density of population is less than half the carrying capacity. In contrast, in the Keonjhar District of Orissa, nearly 70 people live per square mile, while their technique of production can support approximately 25 per square mile. Even this method of shifting cultivation, therefore, is under unequal stresses and strains in different parts of India. In some places there is an urgency of change, while in others the tribe can afford to wait until the saturation point is reached.

The third system of production is by means of agriculture with the plough supplemented by household industries of various kinds. The Anthropological Survey is likely to try and determine the explosion point of population under this system of production. We are all aware of the caste system and also of the norm under which it operates. It was a system designed to be non-competitive in character in which different communities enjoyed hereditary monopoly in respect of particular occupations. Several studies carried out about the caste system have shown very clearly how all castes were divided into privileged and unprivileged classes. There was intense social stratification,

the different strata being marked off from one another by ritual labels. Physical anthropologists have also tended to show that different castes might have also been marked off by physical differences derived from distinct racial origins. In other words, a society based on caste was impregnated by class differences as well as by racial distinctions. Some anthropologists have looked upon caste as nothing but organized class difference. My friend, Mr. N. C. Chaudhuri in his latest book entitled *The Continent of Circe* has tried to show that racial distinctness in the Indian population is much more important than generally thought of. But these class and racial characteristics are not everything in caste. Capitalism and a democratic society like that of U.S.A. are also subject to the septic influences of class and race. Class and race are not exclusively the characteristics of the caste system. One of the prime movers in the caste system was the design of building up a non-competitive productive organization, as we have tried to indicate a little while ago.

As I have said already, just as the Anthropological Survey of India studied shifting cultivation, it is likely to take up another project, namely, the determination of the carrying capacity of land under the non-competitive productive organization of the caste system. We do not know what results would be arrived at in different parts of India. It might be one in the Ganges delta, another in the high Himalayan mountains or Assam, where castes are not as numerous as in the plains of India, and so on. It would indeed be worthwhile to find out how many people can be supported per square mile before they reach an explosion point under this system.

In large parts of rural India, caste-based organization of production was so successful for a long time that even Muslims were drawn into this structure in a camouflaged way. There is a general idea that Indian villages and Indian economy were intensely localised even in the past. Accurate records left by competent foreign observers have given us a picture of the extreme localisation of caste-based productive organization during perhaps the 17th and 18th centuries. But then we must remember that it was exactly during this period that Mughal rule in India was in decay and the rural people retired within the shell of their excessively localised production and exchange in order to escape from the political storms which were blowing over the country. But the tortoise-like retirement within the shell of caste did not succeed in wholly saving them from destruction. The widespread decay of inter-provincial trade as well as the shrinkage of foreign trade attended by misrule and famine carried off many people. So that even when the people took refuge, they suffered. Caste only helped them to survive under difficult times.

After peace came with the gradual extension of British rule and the consolidation of British authority all over India, a new or a fourth organization of production entered the field. Commercial capitalism supported by political authority gradually brought about large-scale changes in the character of

agriculture, trade, commerce and industry. This new development, however, affected different parts of India in a very unequal manner. Changes were largest in Bengal, much less in Orissa, even less perhaps in Assam or Madhya Pradesh. It would be of very great interest to find out how far modern trade and industry affected India's rural economy in an unequal manner in different parts of the country. In modern times, after India has been able to plan her own economic and social changes we are trying to re-build our productive organization in terms of science and advanced technology. The results in the cities and towns are attractive, and a large number of rural folk are crowding into the cities for employment.

There is a general idea that caste system has created such a mentality among our people that they do not want to advance into modern technology fast enough. Having observed things in different parts of India among the people themselves, my personal impression has rather been that people do want a change in employment, better wages and a better life. But our modern industries or urban occupations are expanding at a rate which is not fast enough to meet the demands of the rural people who come crowding into the cities for more work. If there is no hospital in a village and the people resort to the use of country medicine, herbs, and the like which are suggested by some old dame, I do not think they should be described as inherently conservative. If the ship of our modern economy cannot accommodate all the passengers who want a place in it and if they take recourse to country boats for passage across the river, then they do so not because they are conservative but because that is the only alternative which is left to them. Sometimes they cannot even afford to risk taking up a new occupation. Sometimes they do not have faith in the political organization of our society which intends to bring about modernization and therefore cling to the caste-based industries (including a reliance upon its super-structure) so that they can survive through difficult times. It is in this manner that several systems of production have been competing with one another in our country today. It is of fascinating interest to observe the results of this competition.

At this stage, please permit me to come to a close of this rather long inaugural address by drawing attention to some of the resultant changes which are taking place in the reorganization of our methods of production. At the lowest level, shifting cultivators and hunters did not have very much of personal ownership of the means of production. Much of it was communal. Among the shifting cultivators of NEFA or Orissa, the land belonged to the community and the individual enjoyed usufructuary rights over it, this right being of various shades in different parts of India. With the advent of more progressive cultivation, ideas about landownership are also changing. An interesting example can be cited from among the Garo of Assam who came down to the valley of the Someswari which is now in East Pakistan. Their law of inheritance was matriarchal; and when they took to cultivation in the plains,

the landlords refused to settle land upon them unless they took it in the name of men instead of women. Communal land is now being parcelled in certain parts of Assam and becoming converted into personal inheritable property. This is one range at which changes are taking place. But consequent upon this, changes are also taking place in the power structure of society. Sometimes this had led to an accentuation of class differences; occasionally resulting in an increase of tension between one class within the tribe against another, or even between one tribe and a second one when the former happens to be more advanced than its competitors. Occasionally this has led some of the advanced communities to try and heal up the internal tension by an appeal to something which assumes the character of tribal 'nationalism' as opposed to the 'nationalism' of the so-called 'plains people'. But these are developments into the intricacies of which we need not proceed any further.

Coming to the caste-based society, which had its own super-structure, we find that with the growth of a modern system of production the super-structure associated with caste, which was based upon the traditional worship of authority, the subordination of the individual to social demands, etc., is slowly giving place to a new kind of freedom and an intensification of individualism. Sometimes this individualism shows signs of over-shooting the mark; with the result that a new society of free individuals is not yet forming fast enough.

Let me explain this before I close. In a recent social survey of the city of Calcutta, it was observed that with the modernisation of the techniques of production an adequate number of unions based upon either common interests of trade or of civic services did not grow fast enough even in a city which happened to be the capital of India until 1911. When modern institutions do not grow up fast enough, and there is a hang-over of other social identities based upon caste, language, etc., people placed under economic strain prefer to resort to the old fashioned social identities *if the new ones are not adequate enough* to take charge of their increasing difficulties.

We are today living in a state of transition and consequently of intense social and economic tension. Historically viewed this is inevitable in a country which has been subjected to colonialism for many years in the past, and is now trying to make up the leeway by means of increased production and the establishment of social justice. If we are to survive this strain of growth, we must be able to overcome the difficulties which come in our way. And one of the best ways of overcoming the difficulties is to know what *the nature of the disease is*. If in our present seminar, we are able to make the beginning of a more scientific and concerted attempt to study the nature of the changes taking place in the socio-economic life of India, with greater precision and greater comprehension of the larger issues involved, we would undoubtedly have made a very good beginning indeed. Let me end with a note of hope that our present endeavour in the Indian Institute of Advanced Study *will* lead us in that direction.

PART TWO
PAPERS

Background

DURGAPRASAD BHATTACHARYA*

Socio-Economic Trends in India

PROPERTY relations together with the technological level are the basic components of social relations in any given time. Property relations again are the product of history, and therefore, a historical approach is essential to understand the socio-economic situation. In India, both property relations and technique of production changed little in course of centuries. In a predominantly agricultural and ruralised society, property relations in land are of fundamental importance. Two types of land tenure—the permanent settlement and ryotwari settlement—existed in India up to 1947.

W. W. Hunter conceded that struggle for life became more difficult for a large section of people than it had been when the English took possession of the country.¹ Rabindranath's *Crisis in Civilisation* is an appraisal of the British rule.² The poet said, "As I emerged into the stark light of bare facts, the sight of the dire poverty of the Indian masses rent my heart.... The wheel of fate will some day compel the English to give up their Indian Empire. But what kind of India will they leave behind, what stark misery". Thomas Munro visualised the English leaving India³ as early as 1824. William Digby⁴ and F. J. Atkinson⁵ took opposite views on the achievements of the British rule.

It is difficult for a scientific investigator to write on socio-economic trends of such a large country and for such a long period. Firstly, there is a dearth of reliable data; secondly, whatever data are available are scattered

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over so voluminous periodically published documents that a mere listing of them is itself a great task; thirdly, to scrutinise and use them for writing on socio-economic trends of a century is the task of a team for years. Subject to these limitations of time and resources, an attempt is being made in this paper to broadly indicate the trends. Economic trends have been measured quantitatively by trends of output in agriculture and manufactures, and, lastly by the trends of national income. As there is very little scope for a measurement of social changes quantitatively, qualitative appraisal has been attempted.

AGRICULTURE

The purpose of British land revenue administration since 1765 was one of maximum exaction. One can recall the famous letter of Warren Hastings and others to the Court saying that notwithstanding the loss of one-third of population, the collection of revenue was greater in the year of *Chiyatter Manwantar*.⁶ More or less, with this basic policy in view, the revenue administration of India was guided and harnessed. As early as 1830, Rammohun Ray said, "under both systems, condition of cultivators is very miserable, in the one they are placed at the mercy of the zamindar's avarice and ambition, in the other they are subjected to the extortions and intrigues of the surveyors and other government officers".⁷ These two systems of revenue continued up to 1947. The peculiarity in the first half of the 19th century was noticed not only in an increasing exaction, but also in the commercialisation of agriculture from a self-consuming economy to a market economy though by a slow degree. The same railway system carried the British finished products in the interior and brought rural raw materials to ports. Great Britain, after the Industrial Revolution, required market. Great Britain looked to Indian market even for British steel industry. These are simple and known facts. Contemporary records suggest that money lenders deeply penetrated into the scene. More profitable diversion to commercial crops required more cash.

Glancing over the volumes of the all-India Rural Credit Survey, my attention was concentrated on the condition of Broach district.⁸ About one and a half century ago Broach was ably surveyed by Monier Williams, the father of the great Indologist.⁹ The technique of production is constant, the village organisation and social leadership changed very little, and above all the same money-lenders operated perhaps with more strength and vigour. There were changes in many directions but fundamentally the life and labour of the common people were groaning under the same socio-economic bondages controlled by a handful of men.

The years of 1870's recorded the spontaneous upsurge of Deccan peasants against the *Mahajans*. The so-called Riot Commission recorded the miserable plight of the peasantry. Every subsequent enquiry up to the All-India Rural

Credit Survey shows no significant signs of improvement. More than 90 per cent of the credit are supplied by the *Mahajans* in India in 1950's and 6 per cent by the official agencies. On the other hand, the entire community development programme, extension of official rural credit facilities, the legislative land reform and all that the five year plans were intended to achieve resulted, among other things, in the concentration of economic power to half-a-dozen families in every village. Census monographs of village survey in West Bengal as well as investigations by the present author and others reveal the gloomy fact that rate of interest is as high as 50 to 100 per cent in rural Bengal. Marginal cultivators, *bargadars* and agricultural labourers have had no other alternative but to borrow, to mortgage their crop or to make distress sale. Thanks to the lacuna in the law, the ceiling of land today is perhaps the greatest factor in economic history accelerating the concentration. A noted economist once told that the number of tenants evicted from land during post-independence years far exceeded the number evicted during the entire British rule. There may be some element of exaggeration, but those who have any direct knowledge of rural life since 1920's would perhaps agree with me that the entire history of Dewany Judicial operations relating to land is a history of dispossession of tenants. Main scene of this literal plunder was of course staged outside the Courts, the intrigues and powers of landlords were thrust upon the peasantry in the process to dispossess them. Rabindranath's *Dui Bigha Jami*¹⁰ can be well substantiated by statistical evidence macro-economically.

The last quarter of the 19th century witnessed a rapid expansion of commercial crops as well as commercialisation of agriculture. George Blyn's study shows that gross production of food crops remained stationary with some marginal exception over some points of time.¹¹ Upto World War I, India was a net exporting country with regard to food grains. Actually food crops and particularly rice declined sharply after the first war when India became a net importing country. During this period production of commercial crops almost doubled, that too, largely at the expense of food crops. On the other hand, by 1880's food grains became the largest single exportable item. Blyn maintains that average annual food production during the year 1893-94 was 74 million tons, and more or less maintaining this level up to 1926, output declined between 69 and 70 million tons in the period 1926-27 to 1945-46. We are referring to Blyn, because, his is the only work for this period to make an appraisal of official statistics by introducing refinement on a certain scientific basis. Table 1 shows the index.

In another table George Blyn showed that per capita output of crop declined annually on an average by 1.14 per cent in British India between 1911 and 1941, and regional decline also moved round this figure. Daniel Thorner, in commenting on the same figures, maintained, "...we find that

TABLE I

*All-India Estimates of Food Crop, Commercial Crop, and Total Crop Production,
1893-94 to 1945-46*

Sl. No.	Years	Index of annual crop output			Non-food to food crop output ratio
		Food	Commercial	Total	
I	1893-94 to 1895-96	100	100	100	0.22
II	1896-97 to 1905-06	96	105	98	0.24
III	1906-07 to 1915-16	99	126	104	0.28
IV	1916-17 to 1925-26	98	142	106	0.32
V	1926-27 to 1935-36	94	171	108	0.41
VI	1936-37 to 1945-46	93	185	110	0.44

total crop production per capita fell by 20 percent from 1893-94 to 1939-46. Food crop production per capita fell by an even greater amount, to 32 per cent less than the early level. Putting these relationships into terms of pounds of food crop output..., rather than index units, we see that per capita production fell from nearly 600 pounds per year to about 400 pounds in the closing period... In short, statistical survey indicates that since the 1890's total output of all crops has risen, but unimpressively; total output of food crops have fallen off, and per capita output of both food crops and all crops has declined impressively. The trend in agricultural output over the last sixty years may be characterised as stagnation".¹²

Average annual production of food crops in the years 1953-54 to 1961-62 was around 72 million tons with a per capita output of 392 pounds on an average. It means that level of production in the Indian Union was around the level of 1890's and per capita output declined to one of the lowest level in history. The average net area sown was higher in Indian Union alone for these years than that of undivided India for some pre-war years. S. Sivasubramoniam surveyed the sources of agricultural statistics and added his own comments.¹³ He presented the following table.

He concludes to say, "it appears from this table that the overall agricultural output has increased, though at a very slow pace. In the mean time, population has grown very rapidly and has outstripped the increase in

TABLE 2

Trends in Crop Output (1900-01/1904-05=100)

Period	Popula- tion index	Index of area culti- vated	Index of area		Index of average annual output			Index of crop output adjusted for population		
			Under food	Under non-food	Food	Non- food	All crops	Food	Non- food	All crops
1900-01—1904-05	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1905-06—1909-10	103.1	105.8	104.5	111.5	97.5	106.8	99.6	94.6	103.6	96.6
1910-11—1914-15	105.1	109.8	107.8	120.0	105.6	121.7	109.1	100.5	115.8	103.8
1915-16—1919-20	105.6	108.8	108.3	113.4	107.2	102.8	110.5	101.5	97.3	104.6
1920-21—1924-25	108.0	108.9	107.7	115.7	101.8	124.7	106.8	94.3	45.5	98.9
1925-26—1929-30	113.6	111.8	107.7	129.4	97.3	138.7	106.3	85.7	122.1	93.6
1930-31—1934-35	120.5	114.8	111.7	129.7	100.3	137.9	108.5	83.2	114.4	90.0
1935-36—1939-40	129.2	115.3	110.6	135.9	97.9	159.1	111.1	75.8	123.1	86.0
1940-41—1944-45	137.9	118.4	117.3	132.7	100.9	155.3	112.6	73.5	113.2	82.1

agricultural output. If we correct the indices for population growth, agricultural output would seem to have declined by about 17.9 percent, while the output of food crops have fallen by 26.5 percent. The picture that unfolds itself is that in the fortyfive years following 1900, population increased by 37.9 percent, the acreage under cultivation increased by 18.4 percent, the food output remained stationary, the output under commercial crops went up by 55.3 percent resulting in an increase of 12.6 percent in agriculture as a whole".

R. A. Gopaldaswami also indicated a similar conclusion.¹⁴ A number of selected districts were studied and the following table (3) was prepared.

TABLE 3

Cultivated Land Per Capita

Census year	Land (in cents)
1891	109
1901	103
1911	109
1921	111
1931	104
1941	94
1951	84

This decline in per capita land was compensated neither by an increase in double-cropped area nor by an increase in irrigated area per capita. The obvious conclusion that emerges from the data is of a declining output per capita. The Census report of 1951 also contains discussion on food deficits. According to the Famine Commission of 1880, production of undivided India was around 50 million tons in normal years with a surplus of 5 million tons. Two members dissented. Mr. Blyn's figure is around 70 million tons by 1900. It gives a per capita output at 558 pounds. Taking 1872 as a year with an output of 50 million tons, per capita output stands at 498 pounds. It was perhaps not possible for total output and per capita output to rise by 20 million tons and 60 pounds respectively in course of 30 years in

the given conditions. It is therefore assumed that level of production was much higher than that spelt out by the Famine Commission, may be at something around 60-70 million tons in 1871-1880.

An analysis of K. Mukerji's index of agricultural production (1935-36 = 100) shows that it moved between 105 and 110 for 18 years, between 106 and 110 for 9 years and above 110 for one year bringing the total number of years above 100 at 28, but the index was between 70 and 80 for one year, between 81-90 for 7 years and between 91-99 for 17 years during the period 1900-01 to 1952-53.¹⁵ S. Sivasubramoniam's estimate of gross value of output of agriculture for undivided India, 1900-01/1946-47 is summarised in the following table (4).¹⁶

TABLE 4

Value of Agricultural Output at 1938-39 Prices

Year	Total (In million Rs.)	Average (In million Rs.)	Index (1900-01 to 1904-05 = 100)	Population (million)	Per capita output (In Rs.)
1900-01 to 1904-05	38061	7612	100.00	285	26.71
1905-06 to 1909-10	37959	7592	99.74		
1910-11 to 1914-15	40546	8109	106.53	303	26.76
1915-16 to 1919-20	41327	8265	108.58		
1920-21 to 1924-25	39965	7993	105.01		
1925-26 to 1929-30	39695	7939	104.30		
1930-31 to 1934-35	41559	8312	109.20	338	24.59
1935-36 to 1939-40	41910	8382	110.12		
1940-41 to 1944-45	43404	8681	114.04	389	22.32
1945-46 to 1946-47	16564	8282	108.80	400	20.70

It shows that aggregate output increased marginally, but per capita output declined almost constantly. India became a net importing country around 1920. The import ceased in post-war years to be resumed in 1956 onward at an increasing rate.

MANUFACTURES

It is well-known that export of Indian cotton piece goods practically ceased in early 19th century due to the policy of the East India Company.

Industries mentioned in Buchanan's survey¹⁷ and in authoritative documents of revenue survey conducted by eminent civilians of the East India Company, by great authors like Walter Hamilton and pamphleteers were wiped out in large number as no trace of many of them was found in documents of the late nineteenth century. A tabulation of Hamilton's *East India Gazetteer*¹⁸ for the second volume of the Pre-Census Population Studies in India¹⁹ revealed a decline of a large number of towns in 1815 and 1828, because, urban economy was dwindling not only due to the absence of Courts, but also due to a fall in demand for indigenous products. This process continued as evident in the massive documents of historical, geographical, topographical and revenue survey. Before the dusk of the 19th century, Indian hand spinning was virtually extinguished. The fundamental question is whether this loss in production and employment was compensated, and if so, when. The impression of the present author is that there has been hardly any compensation in respect of employment, but production was compensated only in the 20th century so far as the total volume is concerned. It may easily be understood that urban population was almost constant between 1870 and 1911 around 9 percent and it was 11 percent in 1921, 12 percent in 1931, 14 percent in 1941, 17 percent in 1951 and about 18 percent in 1961.²⁰ The big cities and industrial belts account for the overwhelming share of urbanisation, and, therefore, it is difficult to believe that loss in employment resulting from the disintegration and decay for about a century has been made good of. All indications are that the people fell back upon agriculture.

Tea, jute mill, cotton mill, mining and plantation continued to grow and production increased manifolds. The number of cotton mills increased from 58 in 1879-80, to 178 in 1901, 233 in 1911, 249 in 1921, 314 in 1931, 396 in 1941 and 460 in 1954. The number of workers increased from 34 thousand in 1879-80 to 156 thousand in 1901, 261 thousand in 1913-14, 407 thousand in 1930-31, 442 thousand in 1938-39 and 890 thousand in 1960. The jute industry also developed from 21 mills in 1880's to 35 mills in 1901 with above 8 thousand looms and 1.71 lakh spindles employing 112 thousand persons in 1901. The number of mills increased to 77 in 1920-21 with 284 thousand hands, to 100 in 1930-31 with an employment of 308 thousand. Practically thereafter employment began to contract partly due to a general crisis, partly due to competition. In post-partition years, a general crisis is continuing in spite of modernisation which resulted in a sharp fall in employment. Sugar industry developed rapidly only after the protection granted in 1932 for a period of 15 years. Under the shelter of tariff, within 2 years there was 400 percent increase in number of mills and 7 hundred percent in production. Again between 1950-51 and 1960-61 the number of mills went up from 138 to 175 and production from 11 lakh tons to 25 lakh tons. This industry provides employment to one lakh workers and supports 20 million cultivators. The Iron and Steel

industry was put on a sound basis with the foundation of Tata Iron and Steel Company in 1907. There has been expansion over the decades and one of the major achievements of the five-year plans is the foundation of public sector plants. According to the census of manufactures, 1958, there were 167 large and small iron and steel works in India with a fixed capital of Rs. 130 crore providing employment to about one lakh people. Production of pig iron increased from 35 thousand tons in 1900 to 1835 thousand tons in 1939, 1562 thousand tons in 1950 and 4975 thousand tons in 1961. Finished steel production was about one lakh tons in 1916, 1138 thousand tons in 1939, 1004 in 1950 and 2840 in 1961. In spite of this advance, India is still behind many countries. Per capita consumption of steel being a key indicator of economic development, India ranks far behind the advanced countries with 1200 pounds in the U. S. A., 600 pounds in the U. K., 470 pounds in Australia and 10 pounds in India. Cement production was one thousand tons in 1914, 84 thousand tons in 1918, 563 thousand tons in 1930, 1712 thousand tons in 1940, 2612 thousand tons in 1950 and 8280 thousand tons in 1961-62. Engineering industries developed with the railways and since the planning era, they are making a rapid progress.

Mineral production advanced since the late nineteenth century. Production of coal was 5 lakh tons in 1868, 10 lakh tons in 1880, 22 lakh tons in 1890, 61 lakh tons in 1900, 120 lakh tons in 1910, 180 lakh tons in 1920, 238 lakh tons in 1930, 251 lakh tons in 1940, 320 lakh tons in 1950 and 518 lakh tons in 1960. The value of overall mineral production in India may be seen from the following table (5):

TABLE 5

Value of Mineral Production in India

Year	(Rs. lakh)
1901	6,70
1911	11,40
1921	32,90
1931	23,90
1939	20,20
1950	71,60
1960	163,20

The value is of course in current prices. Area under coffee was 105

thousand acres in 1903, 204 thousand acres in 1913-14 and 186 thousand acres in 1935-39 on an average. Production of tea increased from 5617 thousand pounds to 7060 thousand pounds, coffee from 350 to 1005, and rubber from 324 to 524 thousand pounds between 1947 and 1960. The above is a brief, quantitative and monotonous survey of industrial progress of India. One difficulty is that some of the figures for the early years relate to pre-partitioned India. But the location of industries is such that it perhaps little effects the trends. We shall now make a survey of industrial policy and its operation.

The Indian Famine Commission recorded the need for more diversified occupation. The series of exhibitions held in India and outside in late nineteenth and early twentieth century show that the principal object of opening Indian section was to popularise Indian raw products for export. This was not concealed by the Royal Commission on Exhibition. The British Government did not seriously contemplate any industrialisation in India before the first World War. The Indian National Congress, thanks to the leadership, was against any industrialisation up to 1920's and in the late nineteenth century, they were agitating for more Indianisation of jobs. Dadabhai Naoroji, Ramesh Dutt, Gopal Krishna Gokhale and Surendra Nath Banerjee's works and statements, of course, upheld the Indian interest of respective classes in the main and exposed the policy of the rulers. Indian Industrial Conference of 1905 in association with the Indian National Congress made an attempt of revival and many small scale industries were started. Inexperience and lack of technical know-how resulted in failures of these enterprises. The Imperial Department of Commerce and Industries was created and the Industrial Commission²¹ was appointed in 1916 following the experiences of the war. In 1917 Munition Board began its work. Suggestions like diversion of Home orders, direct purchase in India were being attempted for execution. The Industrial Commission submitted its report in 1918 requesting the Government to take an active part in industrial development of the country with the aim of making India more self-contained in respect of men and material. The spring of 1914-20 proved shortlived and depression set in by 1921 resulting in liquidation of large number of companies. The boom turned into a crisis and Indian large-scale industries except jute and some others were very hard-hit. The order of the day was industrial contraction and retrenchment. The Government was unable to implement the recommendations of the Industrial Commission. A Fiscal Commission was set up and this was followed by giving protection to iron and steel and textile industries and later on to some other industries by the Tariff Board. The Provincial Department of Industries were in the field and attempted development regionally. The crisis deepened further due to a fall in agricultural prices in 1929 as an effect of World Depression. The early

years of 1932 saw recovery, development occurred in sugar, cotton mill, coal and jute. But this recovery was also not smooth, prices of primary commodities depressed again in 1937-38 as a result of American depression. Some industries resisted, and on the whole, there was a marked advance.

On the 1st September 1939, Germany jumped upon Poland and the Second World War started. In the meantime, in spite of a regressive policy of the Indian National Congress opposing industrialisation, a conference of Congress Industrial Ministers was held in Delhi under the leadership of S. C. Bose and V. V. Giri. This resulted in setting up the National Planning Committee in 1938 under the Chairmanship of Jawaharlal Nehru. The works of the National Planning Committee will be treated as a distinguished contribution to Indian economic thinking. A vast volume of writings on Indian economic scene began to flow following the publications of the Bombay Plan.²² Shri M. N. Roy came forward with a People's Plan²³ and a critique of the Bombay Plan. M. Visveswaraya's work²⁴ on planning and economic development and general thinking on the subject were much influenced by Soviet Five-Year Plan. The Post-War Reconstruction Committees started work and there were provincial plans. But long before Jawaharlal Nehru's Chairmanship of National Planning Committee, one unknown gentleman, J. N. Ghosh of insurance business, wrote a book on a ten year plan to solve middle class unemployment in early 1930's. He emphasised the industrialisation of India, criticized the khadi-oriented economic policy of the Congress, proposed to set up few steel mills and machine-building industries and also planned the investment-output-location of the units.²⁵ On a more scientific basis, Meghnad Saha's contribution in 1920's is significant. The entire thinking on planning culminated in the bold Draft Plan framed by P. C. Mahalanobis.²⁶

The industrial development as outlined above up to 1939 was narrow, confined to the growth of limited large scale sectors. Foreign capital together with foreign Managing Agency dominated industry and private finance and foreign trade. Daniel Thorner ably summarised the trends: "After 1850 the great British concern played a predominant, almost quasimonopolistic, role in the economic life of India. Indians desiring to enter fields in which British managing agencies already operated found it advisable to place themselves under the protection of one or another of these houses. Throughout the nineteenth century, the would-be Indian captains of industry received little, if any, of the Government help for infant industries which were so common in Europe and the United States. The first tariffs of even a moderately protective nature did not come into operation until the 1920's and up to 1947 the great British shipping lines were able to operate freely in the Indian coastwise trade. The birth of modern industry in India has, therefore, been a prolonged and painful process".²⁷

OVERALL TRENDS

There are very few indicators to measure social change on a quantitative basis. The economic trends may, however, be measured by national income. There is a large number of estimates for the period. Moni Mohan Mukerjee visualised a growth of 55 percent between 1871-79 and 1952-58.²⁸ He did not subscribe to Daniel Thorner's views that there might have been a decline in per capita income. Professor Thorner was not sure whether a decline in agriculture was compensated by modern industry. He did not agree with Professor Colin Clark who mentioned that the proportion of working force engaged in manufactures, mining and construction fell by half, as revealed in the raw census data.²⁹ Professor Thorner said, "at best, a plausible inference from our figure is that whatever new employment was created by the textile mills, rice dehusking plants and other modern industrial establishments may have been roughly offset by an equivalent falling off in handicraft . . . It is indeed a remarkable phenomenon and one worthy of further investigation that agricultural production was reported as virtually constant, and the industrial structure of the economy as practically stationary, during a half century [1881-1931] when India's population rose by 100 million".

Thorner accepts more or less a stationary position. He further maintains that there was hardly any scope for a decline of handicrafts after 1881. If one accepts his assumption of equalisation between working force displaced from handicrafts and absorbed in the modern sector, the aggregate industrial output must increase in the balance owing to a much higher production per worker in the modern sector. All available contemporary records, however, suggest a decline of craft as a continuous process, a decadent village system, and an increasing overcrowding of population in agriculture. The following list presents a chart of substitutes to handicrafts which came into being gradually in this century.³⁰

HANDICRAFTS AND THEIR SUBSTITUTES

*Products of village Industries**Substitutes*

Earthenware

Glass, enamel, porcelain, aluminium, papier-mache, plastics.

Brass and bell metal

Aluminium, glass, enamel, porcelain, metalware, celluloid, plastics

Handloom, *dhenki* (husking), *ghani* (oil expeller), paper

Mill products.

Dairy products

Vegetable *ghee*, condensed milk, powdered milk, malted milk (bottled milk), margarine.

Products of Village Industries

Substitutes

Blacksmithy—household utensils, agricultural implements, etc., household fittings

Silver and goldsmiths

Toys: sola, rags, wood, paper, earth, tinned sheet (scrap), etc.

Games and exercise

Shell buttons

Earthen lamps and lanterns (scrap tin and glass protection against wind)

Wood tooth-brush (dantan)

Tooth-powder (indigenous and Ayurvedic)

Pens (quill pens, etc.)

Razors, cutlery, etc.

Musical instruments

Matches (sulphur sticks), soap, etc.

Tobacco for hookah

Gur

Silk

Jute and hemp spinning

(Metal) trunks

Leather goods (shoes, etc.)

Indigenous toilets (sarmaida, lentils, oil-cakes, lac dyes 'alta-pata', kumkum, chandan (sandal paste) etc.

Shell-lime

Condiments (chatni, morabba)

Aluminium, etc., improved implements, ploughshares, hoes, forms, trowels, spades, hinges, nails, screws, etc.

Change of taste (lighter ornaments), stone-setting, (general poverty), plated and 'carat' gold and silver.

Technical toys, celluloid, guttapercha, plastics, rubber, etc.

Carrom, bagatelle, ping-pong, table tennis, football, cricket, hockey, badminton, tennis, polo, etc., dumbbells, chest expander, gloves, etc.

Metal (press buttons), zip fasteners, plastics, korozo nuts, etc.

Hurricane lanterns, torches, electric bulbs, etc.

Tooth-brush.

Tooth-powder, tooth-paste (chemical ingredients).

Stylos, fountain pens.

Safety razors and blades, factory products.

Harmonium, gramophone, radio, stringed instruments.

Factory products (cigarette lighters).

Cigarettes and biris.

Sugar.

Rayon, nylon, terylene, ardil, cotton textiles (High price).

Mill.

Suit and attache cases, hold-alls, canvas bags, etc.

Factories (leather and rubber).

'Snow' cream, pomade, powder, rouge, nail polish, lip-stick, etc.

Stone lime (modern kilns).

Tinned and canned condiments, jam, jelly, chocolate, lozenge.

*Products of village industries .**Substitutes*

Articles for religious or ceremonial occasions	Cheap substitutes or completely avoided.
Thatched huts	Tiled huts, corrugated tin or asbestos sheet cover, plastic coverings, etc.
Cart-wheel bands (iron, wooden axles, rims, spokes, etc., (push-carts)	Rubber tyres, metal wheels, rims, spokes, etc.
Spirit lamps	Pressure (primus) stoves, electric heaters, etc.

The stay of handicrafts at 1881 level cannot be explained by an expanding Indian market of foreign and Indian mill-made goods. A situation is, however, possible where the effective demand may rise so much so that markets for both handicraft and mill made goods expand. But in view of a falling per capita output in agriculture, it appears to be unlikely. The obvious indication is that of a declining handicraft corroborating the findings of the census data.

Of the overall trend, Prof. K. Mukherje maintained that per capita income of Indian Union rose by 11 percent in the period 1910-11/1914-15 compared to that of 1900-01/1904-05 and more or less maintained that level up to 1952-53.³¹ His findings of a stagnation from 1920's are corroborated by some other studies. V. K. R. V. Rao³² finds no change in per capita income between 1931-32 and 1950-51. In the planning era, there is a reported rise of 17 percent in per capita income in real terms between 1951 and 1961. But the paradox of the situation is that the aggregate food output of the decade for the Indian Union was almost equal to the average level of 1893-94/1905-06 obviously with a much lower per capita output or per capita availability inclusive of imports in 1950's. The annual average production of the decade 1951-61 is around 73 million tons with a per capita output below 400 pounds as mentioned earlier.

None will deny that changes occurred in 90 years. In around 1900, there were only 6000 secondary schools and 6 lakh scholars in undivided India. In 1951, in the Indian Union alone, the number of schools and scholars stood at 20 thousand and 52 lakhs respectively. This number increased to 82 thousand and 227 lakhs in 1962-63. Around 1900, there were one lakh primary schools and above 30 lakh scholars in undivided India. The respective number in 1950-51 was 2 lakhs and 183 lakhs, in 1961-62 3.5 lakhs and 295 lakhs. In the decade 1951-1961 alone, number of educational institutions increased by 139 percent, scholars by 87 percent, expenditure on education by 246 percent, number of hospitals and that of doctors by 40 percent each. One of the most interesting features is the growth of com-

munity development blocks. There occurred a growth of population as indicated below.

TABLE 6

Population of Undivided India³³ (In Million)

Year	Population	% growth from previous year	Year	Population	% growth from previous year
1872	255		1921	306	+ 0.99
1881	257	+0.78	1931	338	+10.46
1891	282	+9.73	1941	389	+15.09
1901	285	+1.06	1951	437	+12.34
1911	303	+6.32	1961	534	+22.20

The main reason for the growth of population by an acceleration since 1931 was the check to the so-called positive checks, eradication of malaria, weakening impact of epidemics, resulting in a stationary birth rate and a declining death rate. But qualitatively the growth has regressiveness in its blood. An economic growth implies a constant transfer of surplus population from village to urban centres of non-agricultural activities, a constant shift from primary to secondary and tertiary sectors. But this process never started. On the contrary, after three plans, the main problem of unemployment is one of a swelling backlog gaining momentum like a snow ball in course of its movement over time towards an avalanche.

English education, growth of secularism, nationalism, trade union and peasant movements are all considered as indicators of progress. But English education did not filter to one person per mille in course of one hundred and fifty years; secularism and nationalism are there, but any communal riot cannot be suppressed without the help of our army; the number of workers engaged in factory increased absolutely, but proportion to total population is more or less the same, the proletariats are a band of wage earners who have basic economic ties with land in remote villages. The rate of growth of literacy is good, but the rate of growth of illiteracy is high, the scholars in

schools are increasing, but, 'wastage', in education is also mounting. This is a real paradoxical situation.

One of the basic reasons underlying these deeprooted ills is perhaps the worsening type of property relations in agriculture, where half a dozen family in every village control the major portion of land and its output by intrigues; they control village co-operative societies and panchayats; they control other bodies; they are in the leadership. Malafide land transactions continued from the beginning, it has taken a gigantic shape today in the form of *benāmī*. These gentle men together with few other beneficiaries of the present social set-up control and dominate the rural scene with a sole purpose: to make as much money as possible. The marriage between these big producers and village finance is no secret. Important provisions in land reform Acts have been circumvented. Our attempt to control concentration in industrial sector has led to a bigger concentration. It is transaction No. 2, that is, transaction by black money, that dominates the commodity transactions, transactions in real estate. No economic law was enunciated to explain the behaviour of these Indian classes of 'entrepreneurs'. The overall trend was never of hope and inspiration. Entire Bengali literature depicts a story of decadence of society during these years. Today, a deep rooted frustration with a crisis in confidence overshadows the horizon. Increasing consciousness of the masses is the only light to keep a hope in the future.

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DURGAPRASAD BHATTACHARYA, ANIMA BHATTACHARYA
AND BIBHAVATI BHATTACHARYA

An Introduction to a Select Bibliography

[*This introduction to a preliminary and select bibliography was presented as a paper at the Seminar on 'Trends of Socio-Economic Change in India : 1871-1961', at the Indian Institute of Advanced Study, Rashtrapati Nivas, Simla along with the manuscript of the bibliography. The introduction has been revised for publication in the Transactions of the Institute. The bibliography itself is under revision to widen the coverage and will be published separately. The introductory survey of publications is also incomplete, and was written with the help of Bhabatosh Dutta's **Evolution of Economic Thinking in India.***]

India, with its numerous languages, races, religions and castes, is a vast country. By 1871, the British conquest of India was complete, and the country had begun to be governed by a central political administration. The establishment of railways, which had already connected the main regions of India, had also unified the country economically. The great uprising of 1857 had been quelled; but the 1870's opened with spontaneous uprisings of the Deccan peasantry. The Orissa famine cast its shadow over the country only to be followed by the most devastating famine of the century in 1877-80. Changes occurred and changes continued to occur in the economic and social life, but one will intensely feel on surveying the records authenticated by contemporary writers that the conditions of the masses were perhaps changing from bad to worse.

This preliminary and select bibliography on socio-economic conditions of India compiled with a view to consolidating information of source materials on the trends in socio-economic changes in India from 1871 upto date is an attempt and effort of two and a half months—too short to make a preliminary

survey. Sidney Webb (Lord Passfield) in his introduction to 'A London Bibliography of Social Sciences' wrote in September, 1930, "For many years I have made it a practice to begin my counsel to would be researcher—indeed, to every one wishing to make any genuine investigation—by urging them to start compiling a list of books, pamphlets, and reports bearing on the chosen subject. The mere survey of their titles, publication dates, and tables of contents is a necessary preliminary to every voyage of discovery after new truth".

The present attempt, however incomplete in respect of coverage, will perhaps be of some value to strengthen our desire to compile a comprehensive bibliography on the subject.

The objective character of British official records impressed Marx so much that he went to the length of saying that peaceful transition to socialism would be possible, if at all, only in Great Britain. We must start our survey by paying a high tribute to our former rulers who, sincere and honest in their motive of imperialism, generally did not suppress material facts that help us to day to evaluate their administration. Their civilians, their Commissions and Committees, recorded massive evidence of the poverty, pity and pathos of life of our people who were groaning under a foreign rule and Octopus of age-long traditional agencies of exploitation strengthened by newly rising classes who were accumulating economic power in the form of ownership of the means of production or of the trade surpluses or of the feudal type exaction. The general tone of the official publications, from the angle of a valued judgement, always indicated that everything was done and attempted to be done by the Britishers in India with the object of betterment of the condition of the Indian people. We have reason and right to differ, but generally speaking, records were objective to a great extent subject to the usual errors involved in the types of investigation.

The source materials on socio-economic conditions of India, 1871-1961, may broadly be divided into five categories. The first building block may be said to consist of (a) the publications of the results of statistical survey of India in the series of Imperial gazetteers, (b) periodical government publications in India, (c) papers and documents presented before the both Houses of British Parliament, (d) census of Indian publications from Plowden to Ashok Mitra. These publications form a massive volume of published primary materials on life and labour, on resources and their utilisation, on production and consumption of material wealth in India. The second building block consists of the works of pamphleteers, mostly unknown and unsung, who recorded contemporary mind on the problems of the day. These pamphleteers alone account for a series of few hundred booklets bound together as *India Tracts* from the eighteenth century. Many such pamphlets from 1871 dealing with famine, education, currency, and other problems have been catalogued in this

bibliography. One Mr. McDoch wrote to Iswar Chandra Vidyasagar on Bengali alphabet and critically appraised works of Dadabhai Naoroji and Romesh Dutt in respect of economic progress of India. The third building block consists of such writers who were called 'nationalist' including Englishmen like William Digby and the civilian scholars of the East India Company. The contribution of the civilians in the field of learning in India is monumental. The Asiatic Society, Madras Literary Society, Bombay Geographical Society and similar societies were organised, patronised and fed by these groups of scholars to a great extent. The fourth building block consists of professional scholars who entered into the scene mostly after the first World War. Their volume of output gradually increased with the expansion of Universities and Colleges. The fifth building block may be said to consist of contributors to periodicals. They were professional men as well as men in the practical field.

W. W. Hunter was appointed the first Director General of the Statistical Survey of India. In 1869 Viceroy directed him to prepare an account of each of the twelve great provinces of India and to visit various Provincial Governments with a view to submitting a comprehensive scheme for utilising the information already collected, for prescribing the principles to be henceforth adopted and for the consolidation into one work of the materials that may be available. Hunter prepared a scheme to conduct a local enquiry throughout each of the 240 districts and to consolidate the materials thus obtained into one book. The first stage could be effected only by a statistical survey of India, the second is represented by the Imperial Gazetteer of India. Hunter drew up six series of leading questions illustrating the topographical, ethnical, agricultural, industrial, administrative and medical aspects of an Indian district. The districts and provincial accounts form, therefore, more than hundred volumes aggregating about 40 thousand pages. The first edition of the Imperial Gazetteer published in 1881 in 9 volumes arranged alphabetically contains some or all information on topics like area, boundary, rivers, etc., climate, animal, agriculture, people, population in a time-series, up to date if available, on trade, manufactures, commerce, communication, administration, natural calamities, public health, language and literature, history, industry, natural products, revenues, etc., as applicable to India, Provinces, States, Districts, Talukas, Parganas, Cities and Towns. The second edition appeared in 1885-87 in 14 volumes, contents being the same as the first. The third edition appeared in 1907 in 26 volumes of which 4 volumes were devoted to Indian Empire: Volume 1—Descriptive, giving physical aspects, geology, meteorology, botany, ethnology, languages etc.; Volume 2—Historical, being an account of epigraphy, antiquities, archaeology, architecture and history proper up to date together with an account of Indian literature; Volume 3—Economical, being an account of agriculture and its problem, forests, mines

and minerals, arts and manufactures, commerce and trade, irrigation and communication, famine and calamities, rents, prices and wages; Volume 4—Administrative, being an account of the Government, finance, revenue, administration, education, survey, etc.

The Provincial Gazetteer series appeared from 1908 in 19 volumes and the plan was the same as that of Imperial Gazetteer. The District Gazetteers containing accounts of about 250 districts and administrative units of India appeared gradually under the same plan. The special feature of the district series lies in the fact that a statistical series termed as B Volumes appeared generally in three points of time to give a statistical account of the districts from the 1890's to 1930. Thus the Statistical Survey of India which culminated in the Gazetteer series organised by Hunter accounts for a socio-economic historical survey of India from the 1870's to 1930. If we add earlier materials and efforts of the pioneers which, of course, are subject to severe limitations and drawbacks, we may get a quantitative socio-economic account of each worth-mentionable places of India from the 1800's to 1930. We have in mind the great effort of Buchanan Francis' Survey of Southern India and some of the districts of Bihar, Bengal and U. P. His monumental works ran into several trunks of manuscript materials lying at the Commonwealth Relations Office, only a small portion of which was published. We respectfully mention two editions of the *East India Gazetteer*, 1815 and 1828 by Walter Hamilton, his *Historical, geographical and statistical account of Hindostan* in two volumes in 1820, the dictionaries of well-known economist McCulloch and Thornton's Gazetteers. With these must be added the historical, geographical and statistical accounts of provinces and districts, from the 1830's to the 1860's.

The next series of materials contained in the Census of India publications probably form the largest single source of information about the country over the time period. Though census of India in the form of an Imperial Census came into being in 1860, termed as the census of 1872 consolidated in a publication entitled *Census of India 1871-72, Memorandum and Summary Tables* (House of Commons' paper by command, Volume 54 of 1875), some sort of an enumeration of population started as early as the 1790's in India and was termed as 'Census'. The early data compiled at the instance of Lord Cornwallis or William Jones or Warren Hastings were partly published in R. M. Martin's Colonial Library (V. 8., London, 1826). From the beginning of this century, enumeration of population and collection of similar facts were in practice in Baramahal under the leadership of Thomas Munro. This process continued with the pace of time to emerge into a quinquennial census of Madras Presidency.

Subject to the limitations of a great operation like that of the census, and, further subject to defects in temporary investigation machinery, informant bias, etc., the census literature is a great mirror of life of the country. It gives

us total number, the composition of population by age, sex, marital status, characteristics of population, occupation or means of livelihood, place of birth, level of education and literacy, language, etc. The scope of the census operations was enlarged gradually. Economic data such as land use were available in early census, on the other hand the latest census of 1961 gives number of families according to land holding. The question of comparability of census data from 1881 was dealt with efficiently by Daniel Thorner and Elice Thorner who worked at the Indian Statistical Institute, Bombay and prepared a series of papers. An industrial census was conducted in 1911 and 1921 showing the name and caste of owner and manager, number of persons engaged in direction, supervision or clerical work by nationality, age and sex.

Parliamentary Papers or papers and documents presented before the British Parliament form a great source of published socio-economic data. These papers and documents, in our humble understanding, are reflections of British mind and character. In 1772, there were two series of reports—reports from the Committee of Secrecy and reports from the Select Committee to be followed by a series of reports on conditions in India in the 1780's, of which the ninth report drafted by great Edmund Burke will be an all-time classic on Indian economy. The series of reports of the 1810's (of which the Fifth report is most celebrated), the 1830's (of which V. 3. on revenue deserves particular attention) and onward, occasional reports on different problems of administering India, the vast materials of the revenue survey form a solid block of useful information. In the 1860's a series of annual publications entitled *Moral and Material Progress of India* under the head *East India: Progress of Condition* began to be published and this publication contained annually information on geographical aspects, administration, agriculture, trade and manufactures, factory, mines, employment, population, census, revenue, public finance, public health, sanitation, etc. These contained comprehensive information on India and continued to appear upto 1937/38. The administration reports of different provinces, Indian states and separate political units also contained similar information. Deliberations of the Select Committee, the Famine Commissions of 1880, 1901, the Plague Commission, the Currency Commissions of 1893, 1896, 1907, 1913, 1926, the Royal Commission on Indian Agriculture, the Royal Commission on Indian Labour, the Indian Industrial Commission of 1916, the Fiscal Commission of 1922 are the documents, in which, apart from the assessment of the Committees or Commissions on the situation in India, we may find evidence of hundreds of people representing various interests, various social classes, etc. In the last quarter of the nineteenth century, a series entitled *Prices and Wages in India* began to appear containing prices of commodities in many stations of India together with wages of skilled, unskilled and semiskilled labour. This series continued in one form or another. Data available date from 1861. K. L. Dutta's enquiry into prices was responsible

for a compilation of enormous valuable data on Indian economy.

The Statistical Abstracts for India were being presented annually before the Houses of British Parliament in the 1860's. The first issue related to 1840-1865. Each year's issue contained ten year's statistics. The series appeared under varied titles at the instance of various Departments, lately under Central Statistical Organisation. The sample survey appeared in the scene after the first World War and with the foundation of the Indian Statistical Institute, it progressed and later on this movement culminated into the birth of the National Sample Survey under the leadership of P. C. Mahalanobis. Hunter laid down the foundation stone of modern statistics; Professor Mahalanobis was primarily responsible for a national net work of statistical organisation in India and bringing the application of the subject in India to a level comparable to that of many advanced countries.

A series of trade statistics containing detailed information on foreign trade of India was presented before the British Parliament and was available from the 1870's. Sanitary reports forming another series contained information on public health and medical situation in India. Another series appeared on emigration from India and conditions of immigrants in different countries. Information on education, trade and transport is available mainly in official publications. Information on different aspects of education is available from 1813. The report of the Commission in the 1880's gives a review of the century. The reports of the Director of Public Instruction of provinces appeared from the 1860's as well as the quinquennial review of the progress of education in India and provinces. These publications contain all-comprehensive descriptive and statistical materials. The railway administration report presented annually before the British Parliament contains detailed information on transportation by railways. Periodicals on other modes of transport also appeared.

Land revenue records and settlement reports contain a mine of information on rural economy. These reports present information on area, population, land use, extent of cultivation, yield, production, mode of tenure, wages, prices, etc., often in a time series, and cover a large tract of India up to the pre-Second World War.

Information on natural resources were collected in the 1880's and the 1890's in the famous *Dictionary of Economic Products* and contributions of Watt and T. N. Mukherjee can hardly be over-emphasised. This was revised and published in a new form by the Council of Scientific and Industrial Research recently in the survey of raw materials and industrial products. A large number of casual publications appeared on mineral resources in the *Selections from Records of the Government of India*. Similar selections from provincial records contain information on different walks of life. The Industrial Commission and the First Fiscal Commission of 1882 followed by reports of Tariff Boards reveal the condition of individual industry over a period of time.

Dadabhai Naoroji, Justice Ranade and Romesh Dutt were the writers who may be termed 'nationalist' and followed the footprints of the pioneer, Raja Ram Mohun Roy. The Raja was not an economist, but like all great thinkers, he surveyed the field very ably in tendering evidences before the Select Committee of the House of Commons. Most of his writings were published in the English works of Raja Ram Mohun Roy by Sadharan Brahma Samaj. The Raja himself published these writings in England in the 1830's. The Reports of the Select Committee, 1830—(appendix volume) reproduced the evidences tendered by the Raja. Recently Professor Susobhan Sarkar edited these writings on behalf of the Socio-Economic Research Institute, Calcutta. The Raja very rightly diagnosed the futility of the Permanent Settlement in not extending the same privileges to the tenants whom the landlords could exact to any extent; under both Permanent and Ryotwari settlements, the conditions of the peasant were miserable. Under one, he was subject to the oppression of the zamindars, under the other, to the intrigues of the revenue officials. Ram Mohun advocated reduction in land revenue to be compensated by taxes on luxury articles.

Dadabhai Naoroji was the first economist in India who extensively used statistical methods in illustrating economic ideas. He estimated total production of India. His statistical correspondence on Indian situation with the India Office is most interesting. It will not take any time for a modern statistician to find out one thousand methodological errors in Dadabhai's calculation. His economic views were also biased by political current of the country. He applied many tools on the Indian data and exercised them successfully.

Ramesh Chander Dutt's writings are treated as classics in Indian economic history. He marshalled massive facts and figures from official records to prove his views. His main thesis was the poverty of the Indian masses and upliftment of the poor. He advocated removal of land taxes. Correctly diagnosing the increasing pressure on land, he failed to understand, what Lord Hastings, William Bentinck and Ram Mohun Roy understood clearly, the futility of the Permanent Settlement. Justice Ranade is ably summarised by Bhabatosh Dutta, "Mahadev Govind Ranade had probably a better understanding of the forces at work in India in the eighteen-nineties than the two other members of the trio. He was more detached than either Dutt or Naoroji and did not have any pet thesis to establish. . . . Ranade gave India the first complete and integrated logic of economic nationalism, representing, on the one hand, the logical culmination of the trend of arguments flowing from Naoroji and his followers, and, on the other hand, the beginning of long stream of sophisticated nationalist economics that Indian writers put forth over the ensuing three or four decades".

Datta has termed the pre-Second World War economists as "nationalists".

The urge to develop national economy following Swadeshi movement, etc. resulted in a flow of writings on economic scene. In the late nineteenth century, Dadabhai Naoroji, Gopal Krishna Gokhale, Surendra Nath Banerjee and other eminent Indians tendered evidence before the Royal Commission on Indian Expenditure. These evidences contained discussion on economic situation in India. The Government sponsored Committees for reforms stimulated discussion on economic policy. The aspiration of the Indian for industrialisation was being recognised increasingly resulting in the setting up of the Industrial Commission and the Fiscal Commission. Imperial Preference and Ottawa Agreement also provoked a large quantity of writings. Claim for protection was recognised and industries continued to grow. The professional men of universities, businessmen and politicians alike continued to participate in the discussion on economic policy ranging from industrialisation, balance of payment, currency, protection, great depression, etc. The population problem also appeared on the scene. The macro-economic approach of Dadabhai and Romesh Dutt was given a new shape when V. K. R. V. Rao published his estimate for national income for 1925-1929 and for 1931-32. The Soviet experiment on planning gave a new dimension to economic thinking throughout the world although the Westerners were sceptic about planning as "rational allocation of resources" was supposed to be absurd under socialism. In India there was a great enthusiasm due to a similarity of condition of the masses and aversion to capitalism as a form of society associated with British Imperialism. Perhaps Rabindranath's letters from Russia in 1930 were responsible to some extent to make Indian thought pro-planning. An unknown gentleman of the insurance world, J. N. Ghosh, wrote a book in the early 1930's on a ten year plan for solving middle class unemployment. He advocated a policy of industrialisation with a few steel plants and machine building industries. The significant work of M. Visvesvaraya on economic planning came out during the same years. The khadi-oriented Gandhian policy of the Indian National Congress was perhaps against any modern industrialisation of the country. In spite of that there was a conference of Congress Ministers of Industries led by V.V. Giri and S.C. Basu where a National Planning Committee was set up under the chairmanship of Jawaharlal Nehru. The series of monographs edited by K. T. Shah are distinguished contributions to economic literature of India. The Bombay plan by a group of industrialists made a bold approach towards economic development of India. It was responsible for provoking a large stream of writings on economic development of India. M. N. Roy published his *People's Plan* and a critique of the said Bombay plan. The Central and State Governments' plans for reconstruction gradually appeared on the scene. In the annals of economic writings the names of D. Ghosh, B. K. Madan, C. N. Vakil, J. C. Sinha, B. N. Ganguli, B. P. Adarkar, Gyan Chand, Radha Kamal Mukherjee, Jehanjir

Coyajee, and others deserve special mention. Space, however, does not permit a review of even the most eminent scholars in the field. D. R. Gadgil's study of industrial evolution, J. P. Niyogi's study of taxation, H. L. Dey's study of tariff, P. S. Lokanathan's study of industrial organisation, C. N. Vakil's, follow-up work of Shah and P. N. Banerjee's work on fiscal policy were specially mentioned by Bhabotosh Dutta. Benoy Kumar Sarkar deserves a special mention for his writings in Bengali.

The new generation, according to Dutta, started practically during the Second World War. The Indian Statistical Institute, the Gokhale Institute at Poona, the Research team of the Planning Commission, Finance Ministry, the Reserve Bank of India, the Central Statistical Organisation "started collecting, storing and analysing available data and also collecting new information". The recent trends of analytical study deserve a separate treatment. In this brief review of the authors, many eminent names have not been mentioned. A comprehensive treatment may be attempted in the introduction to the final script of the bibliography. The timid first five-year plan, the bold draft frame of P. C. Mahalanobis, the official third five-year plan—all culminated unfortunately into a plan holiday. Admittedly, there was more or less a 'stagnant economy in progress' during the last half a century involving a great structural imbalance. Analytical literature that followed the planning era is of immense academic value. But perhaps most of them lack the vision and imagination and a keen awareness of the realities of our society. Calcutta, Delhi, Bombay are now the main centres of economic studies.

ORGANISATION

The bibliography as presented in the Seminar contained about 3,000 entries of published works. It was compiled within a period of two and a half months. A team of workers worked intensively. Cataloguing was done by Ardhendu Banerjee, Shymal Ghosh, Narayan Ghosh, Mira Sarkar, Swapna Sen Gupta, Minati Bhattacharya, Dipali Bhattacharya, Nilima Mukherjee, Uma Kar, Madhusudan Ghosh. Final checking was done by editors, classification by the general editor. The script was arranged by Mira Sarkar, Minati Bhattacharya, Swapna Sen Gupta. Some of the workers are the members of the staff of the Registrar General of India working in the Pre-Census Population Unit. The editors are grateful to National Library, West Bengal Secretariat Library, Indian Statistical Institute Library and Asiatic Society Library for making very exceptional arrangement to supply books in hundreds within the short time. The editors are grateful to Moni Mohan Mukerji for granting immense facilities for this work, and to the Director and the Governing Body of the Indian Institute of Advanced Study for conferring upon them a great honour by entrusting them with the work of this bibliography.



Trend of Population Growth

ASIT KUMAR BHATTACHARYYA

Population Changes in East Bengal: Between 1941-1961

EAST Pakistan came into existence on August 14, 1947, as a province of Pakistan after the old province of Bengal was partitioned into two between the new dominions of India and Pakistan. It was known as East Bengal till March 23, 1956, when the first constitution of Pakistan was adopted and 'Bengal' was dropped in favour of 'Pakistan' from the name of the province.

East Pakistan, or as its original name showed, East Bengal, was formed with the eastern districts of Bengal comprising 63 per cent (62.54 per cent) of the territory of the old province. To this was added nearly the whole of the Bengali speaking district of Sylhet from Assam. East Pakistan, as it is now constituted, has an area of 55,126 sq. miles. To its west and north lies West Bengal and to its east lies Assam, both of which are constituent states of Indian Union. It has a small border with the Arakan region of Burma in the South-East and has a sea-front on the Bay of Bengal in the south.

PARTITION OF BENGAL

Prior to its partition in August, 1947, the province of Bengal had twenty-eight (28) administrative districts grouped under five (5) administrative divisions. Of these, the eastern divisions of Dacca and Chittagong comprising eight districts (*i. e.*, Dacca, Mymensingh, Faridpur and Barisal districts in the Dacca division and Chittagong, Hill Chittagong, Noakhali and Comilla districts in the Chittagong division) remained entirely in East Bengal. The Rajshahi division in the north and the Presidency division in the centre of the old province were divided between West and East Bengal while the Burdwan division then comprising six districts in the west, remained in West

Bengal. The Radcliffe Award implementing the partition of the province particularly affected the established channels of trade and communication in north and central Bengal.

Of the eight districts which comprised the Rajshahi division in North Bengal, four (*i. e.*, the districts of Rangpur, Bogra, Pabna and Rajshahi) remained entirely in East Bengal; three (*i. e.*, Dinajpur, Malda and Jalpaiguri) were divided between West and East Bengal without any reference to their material needs, communication or trade links or even administrative formations. Darjeeling district remained entirely in West Bengal. If we remember that the police circle (or the area under a police station) remained the basic unit of administration during the British rule we can study the impact of partition on North Bengal in greater depth through a study of the divisions of the police stations in the Rajshahi division between the two Bengals. (See Table 1 below)

TABLE I
Division of Police stations of the Rajshahi Division

North Bengal districts	No. of police stations in E. B.	Remaining in W. B.	Total no. of police stations
Rajshahi	22	×	22
Dinajpur	20	10	30
Jalpaiguri	5	12	17
Rangpur	30	×	30
Bogra	17	×	17
Pabna	17	×	17
Malda	5	10	15
Darjeeling	×	12	12
	116	44	160

In all, about 72 per cent of the police stations in the Rajshahi division remained in East Bengal and the broad gauge railway line going north to south through the division also remained in East Bengal. However, its terminal point in the north, Siliguri, was lopped off by partition while Calcutta—the radiating centre of the railway system—was also separated from East Bengal. In regard to the meter gauge lines that traversed North Bengal from West to East linking these districts with North Bihar and Assam, the partition rendered them largely useless.

Of the five districts in Central Bengal (*i. e.*, the Presidency division of

undivided Bengal) two each went to East and West Bengal while the district of Nadia which has traditionally been the heartland of Bengal for many centuries past was split into two by the partition. North eastern Nadia fell to the lot of East Bengal and was renamed Kusthia. The Thana-wise division of Central Bengal districts between the two Bengals in 1947 is given below.

TABLE 2

Division of Police stations in Central Bengal

Central Bengal districts	In E. Bengal	In W. Bengal	Total police stations
Murshidabad	×	20	20
Nadia	12	13	25
Jessore	21	2	23
24-Parganas	×	38	38
Khulna	22	×	22
	55	73	128

PRESENT ADMINISTRATIVE DIVISIONS

At present East Pakistan has 17 districts grouped under four administrative divisions. The pressure of population on the country is very high. East Pakistan has an average density of population which comes up to 922 per sq. mile and would come up to 979 if we exclude the river areas. In 10 out of its 17 districts or in 55 per cent of its total area (30,414 sq. miles out of its 55,126 sq. miles) population density per sq. mile exceeds 1000. The districts of Dacca and Comilla at the confluence of the Padma, Jamuna and Meghna have the highest population densities—between 1600 and 1800 per sq. mile. Population in East Bengal has always tended to concentrate along the active rivers where land formation is still going on and water supply is abundant. Leaving Hill Chittagong the lowest concentrations are found in the five districts along the western margin from north to south, *i. e.*, in Dinajpur (655), Rajshahi (769), Kusthia (851), Jessore (860) and Khulna (526). These districts have a lower average of rainfall and are far from the west of the main rivers of East Bengal. These districts are known to have been too malarious in the last 100 years. Only Sylhet (729) at the eastern margin of the East Bengal plains has a comparably low population density.

TABLE 3

East Pakistan: Area and Population (1961)

Regions	Area in sq. miles	Total population	Persons per sq. mile
East Pakistan	55,126	50,840,235	922
A. Rajshahi division	13,347	11,850,089	888
1. Dinajpur distt.	2,609	1,709,917	655
2. Rangpur „	3,704	3,796,043	1025
3. Bogra „	1,502	1,574,105	1048
4. Rajshahi „	3,654	2,810,964	769
5. Pabna „	1,877	1,959,060	1044
B. Khulna division	12,810	10,066,900	786
6. Kusthia distt.	1,371	1,166,262	851
7. Jessore „	2,547	2,190,151	860
8. Khulna „	4,652	2,448,720	526
(of which Sunderbans)	2,314	—	—
9. Barisal distt.	4,240	4,261,767	1005
C. Dacca division	11,937	15,293,596	1281
10. Mymensingh distt.	6,361	7,018,906	1103
11. Dacca	2,882	5,095,745	1768
12. Faridpur „	2,694	3,178,945	1180
D. Chittagong division	17,032	13,629,650	800
13. Sylhet distt.	4,785	3,489,589	729
14. Comilla „	2,594	4,388,906	1693
15. Noakhali „	1,855	2,383,145	1285
16. Chittagong distt.	2,705	2,982,931	1103
17. Chittagong Hill Tracts	5,093	385,079	76

POPULATION

The people of East Pakistan are Bengalis almost to a man. Except for the various tribes in the Chittagong Hill Tracts (mostly *Chakmas*) and North Mymensingh bordering Garo Hills in Assam, people speak Bengali as

their mother tongue. The population though entirely homogenous racially, is yet divided into two major religious communities—Muslims and Hindus numbering 40.89 and 9.38 million respectively (1961 Census). The total population of East Pakistan numbers 50.84 million. There are also about 374 thousand (373,867) Buddhists, 149 thousand (148,903) Christians, 15 thousand people of tribal faiths and 32 thousand of other faiths in the population. Table 4 below gives the percentage distribution of the population by religion in East Pakistan (1961).

TABLE 4

Religious communities	Percentage of total Population
Muslims	80.4
Hindus	18.4
Buddhists	0.7
Christians	0.3
Others	0.1

The population of East Pakistan grew by 21 per cent in the decade between 1951 and 1961. In the previous decade (between—1941-51) population growth was restricted by the disastrous Bengal famine of 1943 and subsequently by the exodus of non-muslims—Hindus and tribals in two great waves in 1947 and 1950. The growth of population in East Pakistan and the relative growth of the two major communities in the land between 1931-1961 are shown in table 5, below:

TABLE 5
Growth of Major Communities in East Pakistan 1931-61

Year	Population in million	Percentage growth	Muslims in 000s	Percentage growth	Hindus in 000s	Percentage growth
1931	35.6	—	24,731	—	10,453	—
1941	42.0	18.0	29,507	19	11,747	12
1951	42.1	00.24	32,227	9	9,239	—21
1961	50.8	21.00	40,890	26.9	9,380	1.5

Thus the Muslims increased their numbers by about 60 per cent in the years between 1931 and 1961. In 1931, Muslims formed about 70 per cent (69.4) of the total population of what is now East Pakistan while in 1961 they formed about 80 per cent of the total. Hindus in 1931 formed nearly 30 per cent of the total population while in 1961 they have come to form 18 per cent of the total. Such tremendous changes in the social composition of the population have not certainly occurred peacefully as a matter of course nor have they failed to generate great tensions both within and outside the borders of East Pakistan.

Whatever may be said about the differences between Hindus and Muslims, both the communities in Bengal including modern East Pakistan came from the same racial stock, speak the same language, eat rice and fish as their staple food, use mustard oil as their major cooking medium, and do not wear any head gear as a rule. Beef is forbidden to Hindus but pork is forbidden to both Muslims and Hindus. In short, the Hindus in East Bengal are a social minority like English Catholics in England. They are not a national minority like French Canadians in Canada nor a racial minority like Jews in Germany. Solution of Hindu Muslim differences should not prove too difficult if there is a will to solve such problems.

RURAL-URBAN COMPOSITION

The population of East Pakistan is overwhelmingly rural. In 1961, rural population formed nearly 95 per cent (94.8) of the total while a decade before (in 1951) nearly 96 per cent (95.6 per cent) of the population was returned as rural. The percentage of urban population in the total increased from 4.4 to 5.2 in the decade between 1951—1961, *i. e.*, by only 0.8 per cent. At the same time the total population rose by 21 per cent. The progress of urbanisation has therefore been markedly slow.

In a population of about 50.84 million (50,840,235) only 2.60 million people live in towns. Of this total urban population of 2.60 million, 46.5 per cent (1.21 m) live in the following four cities with more than 100 thousand people. These are: Dacca (Capital population 556,712) its river port and industrial centre, Narayangunj (162,054), Chittagong (principal sea port population 364,205) and Khulna (new industrial centre population 127,970).

In 1961, seventy-eight places or eighty-six, if we count Municipal areas, corresponding cantonments and adjacent industrial locations separately were returned as urban areas or towns. Of these, ten areas had less than 5,000 people in them and can best be described as non-agricultural villages. Among the rest, twenty-one (21) areas had more than five but less than ten thousand people in each. Sixteen (16) areas had a population between 10,000—19,999; twenty-two (22) towns had a population between twenty to fifty thousand (20,000—50,000); and only five (5) towns had a population

above 50 thousand but below 100 thousand.

Among the urban population only 295 thousand live in towns with a population between 50,001—100,000; 704 thousand live in the towns with a population between 20,001—50,000 and about 390 thousand people live in the towns with a population between 5001 to 20,000. Indeed, a significant section of the urban population lives in the small towns; twenty-five (25) per cent of the total urban population (660 thousand) being found in the towns with a population between five (5) to thirty (30) thousand. Percentage distribution of the urban population in the various classes of towns is given in the table below :

TABLE 6
Distribution of Urban Population among different classes of towns

Town population	Percentage of total urban population
5,001— 20,000	15
20,001— 50,000	27
50,001—100,000	11.1
Above 100,000	46.5
All Towns	99.6=100

A very significant change has occurred between 1941-1961, in the social composition of the urban population in what is now East Pakistan. In 1941 almost all the urban areas in modern E. Pakistan (excluding Sylhet) showed a majority of Hindus. The percentage of Hindus in 1961 census in the urban centres is given in the table below :

TABLE 7
Hindus in Urban Centres

Urban areas population	Percentage of Hindus in town population (1961)
5,001 — 10,000	27.0
10,001— 20,000	33.7
20,001— 30,000	25.5
30,001— 50,000	22.0
50,001—100,000	21.7
Above 100,000	13.7
All Towns	20.0

The above figures suggest that Hindus are relatively more numerous in the small towns. This is corroborated if we take into account the distribution of Hindu urban population (total 516,856) among different categories of towns. Table 8 below shows the distribution of the total Hindu urban population among the different classes of towns.

TABLE 8
Distribution of Hindu Urban Population

Towns	Percentage of total Hindu urban population
5,001— 20,000	23.00 per cent
20,001— 50,000	32.73 per cent
50,001—100,000	11.34 per cent
Above 100,000	32.73 per cent
Total	100.00 per cent

The distribution of Hindu urban population shows some interesting deviations from the general distribution of urban population among the various classes of towns. Whereas 46.5 per cent of the total urban population lives in the cities with more than 100,000 people only about 33 per cent of the HUP do so. Equally, nearly a quarter (25 per cent) of the HUP lives in the very small towns with population between 5—20 thousand while less than a sixth (15 per cent) of the TUP lives in such towns.

Another characteristic of the Hindu urban population in East Pakistan is its relative scarcity in the new industrial or even in the old railway towns. Hindus are almost absent in the cantonment areas. Table 9 below brings out the position in detail.

TABLE 9
Hindus in Railways and Industrial Towns and Cantonments

Towns: Railway or industrial port cantonment	Total population	Hindus	Percentage of Hindus in total population
1. Kaptai Hydel Project	11,967	697	5.83
2. Chandraghona Paper Mill	4,421	312	7.01

3. Narayangunj Industrial Area	36,272	2,032	6.01
4. Mangla Port	3,847	81	2.0
5. Khulna Estate	N.A.	N.A.	N.A.
6. Isurdi Railway Colony	11,566	976	8.6
7. Santahar Railway Colony	8,292	378	4.6
8. Saidpur Municipality	60,628	2,748	4.45
9. Parbatipur town	27,188	1,572	6.0
10. Jessore Cantonment	7,062	45	0.06
11. Dacca Cantonment	6,569	65	1.0
12. Mainamati Cantonment	4,908	116	2.4

This low percentage of Hindus in the industrial and railway centres and their absence in the cantonments reveal the employment policies of the Pakistan Government in regard to that community.

Rural population: The rural population of East Pakistan, forming about 95 per cent of the total lives in its 64,523 villages. Average population of a village in East Pakistan comes to 747. However, this average varies greatly from district to district, average population of a village in Noakhali (1261) or Chittagong (2231) being much higher than the same in Sylhet (381), Bogra (162) or Rajshahi (426) districts. Rural density is highest at the confluence of the Padma and Meghna. The density of population in the rural police stations along the Padma and Meghna in Dacca and Comilla districts is at present 2000—3000 per sq. mile. It is indeed one of the most heavily populated rural areas of the world.

The average population per village in the different divisions and districts of East Pakistan is given in table 10.

For purposes of administration the villages are grouped first under union councils which are grouped under police stations. A police station is perhaps the most important administrative unit at the lower level though the framework of basic democracy rests on union councils. At the end of 1962, East Pakistan had 4266 union councils grouped under 411 police stations. Between an administrative district and the police stations come the sub-divisions into which districts are usually divided. A district is administered by a Magistrate (now called a Deputy Commissioner following the pattern in West Pakistan),

usually a Class I Central Servant. A sub-division is generally administered by a Class II administrative officer, usually of the provincial service.

TABLE 10
Average Population per Village in Districts

	Average population per village
East Pakistan	747
Dacca division	834
Dacca district	802
Mymensingh district	840
Faridpur ,,	868
Chittagong division	740
Chittagong district	2,231
Chittagong Hill Tracts	890
Noakhali distt.	1,261
Comilla ,,	827
Sylhet ,,	381
Rajshahi division	619
Rajshahi distt.	426
Pabna ,,	677
Bogra ,,	162
Rangpur ,,	983
Dinajpur ,,	530
Khulna division	833
Khulna distt.	825
Barisal ,,	1,105
Kusthia ,,	698
Jessore ,,	608

The seventeen (17) districts of East Pakistan are divided into fifty-nine (59) sub-divisions. Details regarding the number and average population of the various administrative units are given in Table 11.

Table 9, along with Table 3, indicate how intense is the pressure of population in Dacca division. With an area (11,937 sq. miles) less than that of any other division, Dacca division has more union councils (1,239) than any other division and the population per union council in Dacca division is higher than in any other division except Chittagong. Dacca division also has the largest number of police stations except Rajshahi division

the area of which (13,347 sq. miles) is larger than that of Dacca. Dacca has also the largest number of people per police station. It has important bearing on the law and order situation in the area. Population per sub-division is also highest in Dacca and though it has the smallest area and the smallest number of districts among various divisions its number of sub-divisions comes close to that of Chittagong which has five districts compared to its three. Comparable pressure of population exists in the two riverine districts of Chittagong division.

TABLE 11
Average Population in Administrative Units

	East Pakistan	Dacca division	Chitta- gong division	Khulna division	Rajshahi division
1. Number of Dis- tricts	17	3	5	4	5
1A. Average popu- lation of districts	2,990,602	5,097,586	2,725,930	2,576,725	2,370,018
2. No. of Sub- divisions	59	15	16	15	13
2A. Average popu- lation of Sub- divisions	1,019,573	1,019,573	851,853	671,127	911,545
3. No. of Police Stations	411	111	99	88	113
3A. Average Popula- tion of Police Stations	123,699	137,780	137,637	114,397	104,868
4. No. of Union Councils	4,266	1,239	1,112	852	1,063
4A. Average Popu- lation per Union Council	11,299	11,478	11,682	10,679	11,310
5. No. of Villages.	64,523	17,058	17,554	11,566	18,345
5A. Average popu- lation per village	747	834	740	833	619
6. Percentage of Literates	17.7	15.8	19.5	19.1	16.1

The problems there are more or less the same as those of Dacca. It is these districts which form the heartland of East Pakistan. It should also be noted that the average population of a district in West Pakistan is about 841 thousand (840,792) which is even lower than the average population of a sub-division (1,020 thousand) in East Pakistan. East Pakistan is under administered as it is. This has important bearing not only on the maintenance of law and order but also on the welfare work of the government that reaches the people. Indeed the sub-divisions of East Pakistan must first be upgraded to districts if the welfare work of the government there has to be of the same order as in West Pakistan.

The age and sex distribution of East Pakistan's population is given in the table below:

TABLE 12

Population Distribution by Age and Sex in East Pakistan

Age group	Population in (000)			Percentage distribution			
	Both sexes	Males	Females	Both sexes	Males	Females	Male/ Female ratio
All ages	50,840	26,349	24,491	100.0	100.0	100.0	107.5
0—4	9,264	4,580	4,684	18.2	17.4	19.1	96.4
5—9	9,529	4,869	4,661	18.7	18.5	19.0	104.4
10—14	4,647	2,610	2,037	9.1	9.9	8.3	123.2
15—19	3,905	1,922	1,983	7.7	7.3	8.1	96.9
20—24	3,813	1,825	1,989	7.5	6.9	8.1	91.7
25—29	4,000	2,002	1,998	7.9	7.6	8.2	105.1
30—34	3,238	1,693	1,545	6.4	6.4	6.3	109.5
35—39	2,812	1,558	1,254	5.5	5.9	5.1	124.2
40—44	2,367	1,254	113	4.7	4.8	4.5	121.6
45—49	1,817	1,016	802	3.6	3.9	3.3	126.7
50—54	1,748	947	801	3.4	3.6	3.3	118.2
55—59	1,045	611	435	2.1	2.3	1.8	140.4
60 and above	2,653	1,462	1,190	5.2	5.5	4.6	122.9

M/F ratio for children between 1—4 years and not 0—4 years.

For children under one year the M/F ratio is 99.8.

Sultan S. Hashmi mentions "that in East Pakistan, the proportion of children increased from 42.1 per cent to 46.1 per cent (between 1951-61) and of older persons from 2.9 to 3.6 per cent. This is a peculiar change which is likely if health improvements have been more effective in case of children and older persons. This might also have been accompanied by an increase in fertility". However, Hashmi seems to have missed the real point about this "peculiar change". The real point is that East Pakistan has lost its working population at a far heavier rate than other sections of its population leading to a change in the population structure. In course of a decade the percentage of adults in the age group 15-64 in her total population has been reduced by about 5 per cent. This points out to abnormal working conditions and results in an all round impoverishment through a rise in the percentage of dependents in the total population.

The above table further reveals that 46 per cent of the total population of East Pakistan is below 15 years of age while nearly 11 per cent (10.7) is composed of old people of 50 years and above. Among males this percentage is 45.8 and 11.4 respectively while among females this comes to 46.4 and 9.4 respectively. It is remarkable that contrary to usual population trends longevity of women in East Pakistan is less than that of men. Losses of female lives due to childbirth alone can not explain this phenomenon. Indeed, the M/F ratio of the critical ages of 15-24 show a greater survival rate for women which is reduced from 25 years onwards. Studies about the social position of women in the region is therefore highly necessary in view of the disquieting data.

LABOUR FORCE

The labour force in East Pakistan has been estimated by K. Taffazzul Hossain, (Planning Board, East Pakistan Government) as follows:

"The size of the civilian labour force in 1951 (Census) was 12,886,340 which was 30.7 per cent of the total population. Of this labour 10,715,467 (25.5 per cent) was agricultural and 2,170,893 (5.2 per cent) was non-agricultural. The size of the civilian labour force (above 12 years) in 1961 was 17,442,957 which was 33.16 per cent of the total population. Of this labour force 28.2 per cent was agricultural and 4.96 per cent was non-agricultural."

Distribution of the civilian labour force in East Pakistan and percentage distribution of total population in East and West Pakistan by economic categories are given in the Tables 13 and 14.

Tables 13 and 14 show that while the civilian labour force as a percentage of the total population has slightly increased in East Pakistan (by 2.43 per cent) the 'increase' must have taken place entirely in the already over saturated agricultural sector. The percentage of agriculturists in the population increased by 2.65 per cent while the percentage of non-agriculturists

decreased slightly by 0.22 per cent in the decade between 1951-1961. Thus the economic advantage from the rise in the labour force appears questionable. This growth in the labour force appears to be a distress growth, which results from the rising population seeking employment at a substandard or a little above starvation wages simply to avoid total starvation and death.

TABLE 13

Distribution of the Civilian Labour Force in East Pakistan (Census 1961)
(Number in 000s)

Age group	Total	Cultivators	Other agriculturists	Non-agriculturists
All ages (12 & over)	17,443	14,604	286	257
Total per cent	100	83.72	1.54	14.74
Males	100	82.76	1.36	15.88

TABLE 14

Percentage Distribution of Population by Economic Categories in East and West Pakistan

	East Pakistan		West Pakistan	
	1951	1961	1951	1961
Total Population	100.00	100.00	100.00	100.00
Civilian Labour force	30.73	33.16	30.61	31.83
Agriculturists	25.55	28.20	19.92	18.79
Non-Agriculturists	5.18	4.96	10.69	13.04
Others including dependents	69.27	66.84	69.39	68.17

The marital status of the population in East Pakistan are given in table 15.

TABLE 15

Marital Status of the Population in East and West Pakistan

Age groups	East Pakistan		West Pakistan	
	Males	Females	Males	Females
All ages (10 and above)	63.0	70.6	56.3	66.8
10—14	2.2	31.7	4.4	10.4
15—19	12.0	89.5	16.0	52.8
20—24	48.8	96.6	45.5	86.2
25—29	80.4	94.8	69.1	92.3
30—34	92.1	90.8	81.6	93.1
35—39	94.7	84.7	85.9	91.1
40—44	95.0	71.6	85.4	84.8
45—49	94.3	61.3	85.7	81.9
50—54	92.9	45.2	84.3	70.6
55—59	91.9	37.4	81.6	68.1
60 and above	84.5	17.4	71.3	41.9

The above table reveals a number of interesting facts, e. g.

(1) the percentage of married females falls steeply from the age of 40 onwards, so that less than half the females are married at the age group 50—54, a little more than a third are married at the age group 55—59, while for women aged 60 and above less than a fifth are reported married.

As apart from other factors this trend is caused by the growing proportion of widows in the married female population in the age groups after 30—34. A virtual ban on widow remarriage seems to operate in the age groups from 40 onwards.

(2) Contrary to the trend seen among females, among males, the percentage of the married population does not really fall till the age of sixty and above is reached. Even at the age of 60 and above more males are found married than at the age groups of 20—24, or even 25—29. This undoubtedly constitutes a break on the growth of population but may not be desirable for other reasons.

(3) It is also interesting that while among females the highest percentage of the married population is found in the age group 20—24, which falls gradually in the subsequent age groups till the age of 40 when the fall becomes drastic, among males, the highest percentage of married population is reached only in the age group 40—44 and as high a percentage is found married in the age group 55—59 as is found in the age group 30—34. The economic domination of older males in a predominantly agricultural society perhaps explains this really extraordinary phenomenon.

(4) Marriage is however universal while widowhood, negligible among males, is high and starts rising among females from the age of 35 onwards. The problem can be seen in perspective when we remember that the percentage of widows among females in the age group 35—39 is the same as among males in the age group 60 and above. There is little doubt that this is caused by the economic domination of the males in society (vide table 16 below). The age of marriage again is much lower in females than in males. Nearly 92 per cent of females in the age group 15—19 is married while among males (1961) in the same age group only 12 per cent is found married.

The problem of girl widows is also serious. A fifth of the girls in all ages from 10 and above who have been ever married are shown as widows. (Table 16)

TABLE 16

Percentage of Widows in the Ever Married Population

Age group	Ever married percentage of population			Widow percentage of population		
	Both sexes	Males	Females	Both sexes	Males	Females
1	2	3	4	5	6	7
All ages (10 and above)	77.4	66.5	89.5	13.2	4.8	20.2
10—14	15.5	2.2	32.6	0.8	2.0	0.8
15—19	52.6	12.2	91.7	1.0	1.6	0.9
20—24	75.5	50.3	98.7	2.1	0.2	2.1
25—29	91.1	82.7	99.5	3.1	2.2	4.4
30—34	97.0	94.7	99.6	5.1	2.2	8.1
35—39	98.4	97.4	99.8	7.9	2.4	14.5
40—44	99.4	98.9	99.8	15.0	3.6	27.6

1	2	3	4	5	6	7
45—49	99.5	99.2	99.9	19.3	4.5	37.9
50—54	99.6	99.3	99.9	28.1	6.1	54.0
55—59	99.6	99.4	99.9	30.0	7.3	61.9
60 and above	99.8	99.6	99.9	45.1	14.9	82.1

The age specific birth rates and gross reproduction rates of East and West Pakistan (adjusted) are given in the table below:

TABLE 17
Age Specific Birth Rates in Pakistan

Age of women in years	East Pakistan	West Pakistan
15—19	.134	.133
20—24	.302	.299
25—29	.337	.335
30—34	.266	.265
35—39	.211	.211
40—44	.082	.082
45—49	.061	.058
	1.393	1.383

Gross reproduction rate 3.398.

It can be seen that East Pakistan has a higher gross reproduction rate than West Pakistan while Pakistan itself has a higher gross reproduction rate per thousand (3,385) than either India (2,527) or Ceylon (2,493). Hashmi mentions that, "Pakistan rates (of fertility) are the highest at all ages except the age group 15—19 in which the rate is slightly lower than the corresponding rate in India". East Pakistan thus has a gross reproduction rate which is the highest in India, Pakistan and Ceylon. The problem is undoubtedly serious and must be tackled. Women under 30 contribute more than half the fertility in East Pakistan as in West Pakistan, India or Ceylon. One sure way of reducing the population pressure would therefore be to increase the age of marriage for females. This however requires considerable changes in social norms and attitudes.

DEATH RATE

Hashmi mentions a crude death rate (adjusted) of 16.3 per thousand for East Pakistan and 17.1 per thousand for West Pakistan. These are lower than India's (19.2) but considerably higher than Ceylon's (10.8). However, these figures do not agree with those given by Krotki which are 32 per thousand for East Pakistan and 25 per thousand for West Pakistan.

"For a better insight into the differences of East and West Pakistan" Hashmi gives age and sex-specific death rates of East and West Pakistan weighted by the age distribution of Pakistani population. From this he derives the following sex specific death rates:

TABLE 18
Sex Specific Death Rate in Pakistan

	Both sexes	Males	Females
East Pakistan	17.1	16.8	17.4
West Pakistan	17.2	16.2	18.2

It can be seen from above that the slightly higher death rate in West Pakistan is caused by the considerably higher rate of female mortality in West Pakistan compared to that in the Eastern Wing. East Pakistan on the contrary has a higher rate of male mortality which is perhaps due to comparative poverty in the region. The higher female mortality has to be traced to the general social backwardness of much of West Pakistan. This reason gets added weight from the fact that in both wings of Pakistan, "Males have lower mortality than females" (Hashmi, p. 39). Hashmi mentions that "1036 females die for every 1000 males in East Pakistan and 1124 females die for every 1000 males in West Pakistan". This reversal of an almost world wide trend can not be traced to natural or biological causes alone. Social customs enforcing the social inequality and disability of women and attitudes growing out of such customs alone can perhaps explain the phenomenon.

Infant Mortality

Hashmi mentions that "in 1962 both in East and West Pakistan the infant death rates were 39 per cent of the total deaths. In addition they are higher for males than for females which is in accordance with the universally known pattern. The infant death rates are higher for West Pakistan than they are for East Pakistan."

This again is possibly due to social backwardness and greater illiteracy especially among females in large parts of West Pakistan.

APPENDIX I

Population Changes in East Bengal, 1941-61 (Now East Pakistan)

In 1941, Muslims were in a majority in only 7 among the 54 places listed as urban in East Bengal (excluding Sylhet). These were Rajshahi, Narayanganj, Sherpur, Jamalpur, Bhairal and Noakhali. Muslims also had a nominal majority in Chittagong in 1941, forming 51.68 per cent of the total population of that town. In Dacca city, muslims formed only 39.00 per cent of the total population. Percentage of Muslims in towns with varied ranges of population (1941) is given below:

TABLE A

Category	Towns with a population range		Percentage of Muslims in 1941
	From	to	
V	1	5,000	30.60
IV	5,001	20,000	37.11
III	20,001	50,000	43.00
II	50,001	100,000	40.90
I	100,000	and above	39.00
	All towns:		40.40

TABLE B

Distribution of the Muslim urban population in the different categories of towns is given in the table below:

Categories	Population range	Percentage of Muslim urban population in 1941
V	as above	0.50
IV	—do—	21.98
III	—do—	40.00
II	—do—	21.20
I	—do—	16.42

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ALOK KUMAR DUTTA

Present Trend of Marriages and its Implications among the Aboriginal Tribes of Tripura

THE union territory of Tripura is situated on the Eastern borders of India. It is bounded on all sides; except a narrow strip in the north which connects this territory with other places of India, by East Pakistan. It comprises an area of 4,116 sq. miles. Administratively this territory is divided into ten subdivisions. These places are inhabited at present by the people belonging to both tribal and non-tribal communities. The growth of tribal, non-tribal and general population of Tripura from 1901-1961 is given in Table 1.

TABLE 1

Population Variations and Indices of Growth among the Tribals, Non-tribals and General Population of Tripura, 1901-61.

Census years	Population			Index of Growth		
	Tribal	Non-tribal	General	Tribal	Non-tribal	General
1901	91,679	81,646	173,325	100	100	100
1911	N.A.	N.A.	229,613	N.A.	N.A.	132.48
1921	161,566	142,871	304,437	176.23	174.98	175.64
1931	184,117	198,333	382,450	113.95	242.91	220.77
1941	33,633	479,377	513,010	36.68	586.89	295.98
1951	192,293	446,736	639,029	209.74	547.16	368.68
1961	360,070	781,935	1,142,005	392.79	957.71	658.88

The Table 1 reveals that while the non-tribal population has increased approximately ten times since 1901, the tribal population increased only four times in terms of absolute numbers. During the same period, however, the general population of Tripura increased only seven times. It is also evident from the same source that upto 1921, the Union territory of Tripura, was dominated by the people belonging to tribal communities, and thereafter it is being dominated by the non-tribals. So the present stature of the population of Tripura is mainly due to the non-tribals. This shift in situation in respect of population has consequently wrought many changes, not only in demographic sphere, but in economic, cultural and social lives of the tribals of Tripura, as well. Such changes, specially those in social sphere, are best understood, if the current practices of the autochthones of the place are compared with their traditional customs.

With this background in mind, let us now examine the present day population (1961) of the place. It is observed that the most dominant among the non-tribal population are those belonging to the Bengali communities and whose mother tongue is Bengali. These communities are comprised of members belonging to both Hindu and Muslim religions. The former religious group includes again people of both low and high castes. Hindus are in majority.

The next important group is the people belonging to the tribal communities of Tripura. All tribal communities are scheduled throughout the union territory of Tripura, according to Scheduled Tribes Lists (Modification) Order, 1956. They constitute roughly one-third of the total population of the place.

Most of the Scheduled Tribes are Hindu by religion. Rest are either Buddhists or Christians. Among the Scheduled Tribes of Tripura, Tripuri, Riang, Jamatia, Halam, and Noatia are the original sons of the soil—while the Chakma and the Mag though not autochthones of the place are very old residents to have a reasonable claim for similar status. The rest of the Scheduled Tribes such as Garo, Khasi, Kuki, Santal, Oroan, Bhil etc. are comparatively recent settlers. Among them again the Santal, the Oroan, the Bhil and the Munda have settled very late as tea garden labourers from Chhotanagpur, Bihar and Madhya Pradesh. Among the original tribes further the Tripuri, the Halam, the Riang, the Jamatia and the Noatia are socially, culturally and traditionally alike, however, with minor differences. The Chakma and the Mag are two distinct tribes having culture and customs of their own, entirely different from the tribes mentioned before. If there is anything common among the Chakma and the Mag with the Tripuri, the Halam, the Riang, the Jamatia and the Noatia, it is not owing to their common racial affinity but due to their being in close associations for a very long time. The strength and percentage distribution of the original Scheduled Tribes of Tripura are given in Table 2.

TABLE 2

Percentage Distribution of the Scheduled Tribes of Tripura

Tribes	Population	Percentage
Tripuri	189,799	52.71
Riang	56,597	15.71
Jamatia	24,359	6.80
Noatia	16,010	4.44
Halam	16,298	4.52
Chakma	22,386	6.20
Mag	10,524	2.92
Others	24,097	6.70
All Scheduled Tribes	366,070	100

Most of these Scheduled Tribes dwell in the interiors of Tripura far away from the urban centres. Barring other customs and traditions, it is known that all these tribes are strictly endogamous in regard to their marriages. Although endogamy here denotes marriages within the tribal communities as a whole, the actual rule among the Scheduled Tribes of Tripura is to marry within their own tribes. However, inter-tribe marriage is not unknown, in fact tolerated in their customs, but marriage outside tribal community (i.e., with non-tribal) is considered as violation of traditional customs.

It is, therefore, envisaged in this paper under the prevailing non-tribal dominance, to examine the types of tribal marriages with the help of 1961 Census data, and to point out whether such data throw any light on the fact that the tribals still conform strictly to their traditional customs, or that they have now deviated from their traditional path. In case of deviation, what is the trend? Whether this trend is significant and whether this has any social implications.

Method :

The mother tongues indicated by the Scheduled Tribes of Tripura, viz. Tripuri, Rieng, Halam, Jamatia, Noatia, Chakma and Mag in 1961 Census have been taken into consideration for the purpose of indicating marriage types. In this respect, however, the following assumptions have been made:

(i) Mother tongues indicated by the Scheduled Tribes show the group or community to which their mothers belong. Although there is a chance that one's mother may acquire a particular tongue without being a member of that

group or community by birth but due to her being adopted by that group or community, as adoption is a socially reckoned custom among the tribes of Tripura. It is, however, most unlikely that adoption of child from tribe or caste other than their own will occur. Even if there are cases, these are too negligible to be taken into account. It may, therefore, safely be assumed for our purpose that mothers indicated by the mother tongues denote that the mothers acquired these tongues by virtue of their being a member of that particular tribe or community by birth only.

(ii) Many of the tongues in fact represent a particular tribe or a community. In such cases those tongues have been accordingly grouped together to denote a particular tribe or a community. For example, mother tongues, Banshi, Bongchar, Chari Chong, Kaipong, Kalai, Karbong, Khelma, Mursum, Mulsom, Rupini, Saimal and Halam have been identified with the Scheduled Tribe Halam. Similarly, the mother tongues Kok-barak and Tripuri have been grouped together to denote the Scheduled Tribe Tripuri, whereas the mother tongues Ranghol and Kuki have been identified with the Scheduled Tribe Kuki.

(iii) As mother tongues have been identified with mothers so also the speakers have been identified with the offsprings of the mothers. It has been assumed, leaving isolated and odd cases, four such speakers (as the average size of a tribal household in Tripura is 6) may be considered to represent one marriage.

With these basic assumptions, now we proceed to calculate from the returns of mother tongues by the Scheduled Tribes under consideration during 1961 Census of Tripura (as shown in the Appendix) approximate incidences of intra-tribe marriages (tribe marrying within the same tribe); inter-tribe marriages (tribe marrying a tribe but not of their own group); and tribal and non-tribal marriages (tribe marrying a non-tribal).

Discussion :

The discussion may now be carried on with the materials thus regrouped in the following sets of Tables (3 to 8). The first of these tables gives information regarding the incidences of endogamy and exogamy among the Scheduled Tribes of Tripura.

TABLE 3
Incidence of Endogamy and Exogamy among the Scheduled Tribes of Tripura

Scheduled tribe	Endogamous marriages (intra + inter-tribe)	Exogamous marriages (tribal-non-tribal)	All types of marriages
1	2	3	4
Tripuri	46,102	1,347	47,449
%	97.15	2.85	100

1	2	3	4
Riang	14,146	6	14,152
%	99.94	0.06	100
Jamatia	6,086	4	6,090
%	99.92	0.08	100
Noatia	3,997	6	4,003
%	99.84	0.16	100
Halam	4,070	6	4,076
%	99.84	0.16	100
Chakma	5,586	11	5,597
%	99.81	0.19	100
Mag	2,565	69	2,632
%	97.38	2.62	100

The Table 3 reveals that the Scheduled Tribes Tripuri and Mag show a good percentage of exogamy whereas all other Scheduled Tribes have mostly confined to endogamy, i.e., they have married tribal women of either their own tribe or of another tribe only. Among the Scheduled Tribe Tripuri, the percentage of exogamy and endogamy is 2.85 and 97.15 respectively while among the Scheduled Tribe Mag, the frequency of exogamous marriage is 2.68% and endogamous marriage 97.38%.

Occurrence of exogamy among rest of the Scheduled Tribes under study is less than 1 per cent. Between the Scheduled Tribes Tripuri and Mag, the former is again more exogamous. Among the Scheduled Tribes Rieng, Jamatia, Noatia, Halam and Chakma, the tribe mentioned last is the most endogamous. The Chakma is followed closely by the Scheduled Tribes Rieng and Jamatia in this respect.

TABLE 4
*Incidence of Inter-Tribe and Intra-Tribe Marriages
The Scheduled Tribes of Tripura*

Scheduled tribe	Intra-tribe marriage	Inter-tribe marriage	Total tribal marriage
1	2	3	3
Tripuri	46,022	80	46,102
%	99.83	0.17	100
Riang	13,232	914	14,146
%	93.57	6.43	100

1	2	3	4
Jamatia	3,534	2,552	6,086
%	58.07	41.93	100
Noatia	1,108	2,889	3,997
%	27.62	72.38	100
Halam	3,472	598	4,070
%	85.34	14.64	100
Chakma	5,584	2	5,586
%	99.97	0.03	100
Mag	2,561	2	2,563
%	99.93	0.07	100

The Table 4 furnishes information regarding intra-tribe and inter-tribe marriages out of total endogamous marriages among the Scheduled Tribes of Tripura. As the custom among the Scheduled Tribes of Tripura is to marry mainly the women of their own tribes, the Table 3 reveals, how far that custom is still observed. It will be seen from this table that all the Scheduled Tribes, except Jamatia, Noatia, and Halam have adhered mainly to their social customs.

Among the defaulters again incidences of marriages (where a tribal has married a tribal woman but not of his own group) are very prominent among the Noatia and the Jamatia. It is abnormally high when the Scheduled Tribe Noatia are singled out. The percentage of inter-tribe marriages among the Scheduled Tribes Noatia, Jamatia and Halam is 41.93, 72.38 and 14.64 respectively.

The Table 5 gives percentage distribution of intra-tribe, inter-tribe and tribal-non-tribal marriages out of all types of marriages (exogamous and endogamous marriages) among the Scheduled Tribes under study.

TABLE 5
*Incidence of Inter-Tribe, Intra-Tribe and Tribal-Non-Tribal Marriages
among the Scheduled Tribes of Tripura*

Scheduled tribes	Endogamy		Exogamy	
	Inter-tribe marriages	Inter-tribe marriages	Tribal-non-tribal marriages	All types of marriages
1	2	3	4	5
Tripuri	46,022	80	1,347	47,449
%	96.99	0.16	2.85	100

1	2	3	4	5
Riang	13,232	914	6	14,152
%	93.49	6.45	0.06	100
Jamatia	3,534	2,552	4	6,090
%	58.02	41.90	0.08	100
Noatia	1,108	2,889	6	4,003
%	27.67	72.17	0.16	100
Halam	3,472	598	6	4,076
%	85.21	14.63	0.16	100
Chakma	5,584	2	11	5,597
%	99.77	0.04	0.19	100
Mag	2,561	2	69	2,632
%	97.30	0.08	2.62	100

It is evident from the table that the Tripuris usually marry within their own group but whenever they marry outside their own tribe, they prefer non-tribals to tribals not belonging to their own tribe. Similar picture is evident in the case of the Scheduled Tribe Mag. The Scheduled Tribes Halam and Rieng marry within their own tribes mainly but whenever it is a case of marriage outside their own groups, they prefer other tribals to non-tribals. Among the Scheduled Tribe Jamatia, the occurrences of inter-tribe and intra-tribe marriages are almost of equal proportions. Whereas the Noatias prefer marriages with other tribes to marrying within their own tribe. The occurrence of tribal-non-tribal marriages among these two Scheduled Tribes is negligible.

The Chakmas almost wholly marry within their own tribe. The incidences of inter-tribe and tribal-non-tribal marriages are so negligible that they may for all practical purposes be considered as the most endogamous tribe in Tripura. The overall trends thus emerging from the foregoing discussions may be listed in a tabular form (Table 5).

TABLE 6
Trends of Marriages among the Scheduled Tribes of Tripura

Scheduled tribe	Intra-tribe marriage	Inter-tribe marriage	Total non-tribal marriage
Tripuri	Normal	Negligible	High
Riang	Normal	High	Negligible
Jamatia	Below normal	Very high	
Noatia	Abnormal	Very high	Negligible
Halam	Normal	High	Negligible
Chakma	Normal	Negligible	Negligible
Mag	Normal	Negligible	High

Whether these trends have any significance statistically may be determined by X^2 test. The test may be applied in respect of the following two cases:

- (i) Trend emerging as a result of deviation from intra-tribe marriage.
- (ii) Trend emerging as a result of deviation from endogamy as a whole (intra-tribe and inter-tribe marriages together).

TABLE 7

Test of Significance of Exogamy among the Scheduled Tribes of Tripura

Scheduled tribe	Intra-tribe marriage			Endogamous marriage (Inter + Intra-tribe)		
	Expected	Observed	X^2	Expected	Observed	X^2
Tripuri	100	99.83	.00002	100	97.15	.081
Riang	100	93.57	.41350	100	99.94	.00003
Jamatia	100	58.07	17.5	100	99.92	.00006
Noatia	100	27.62	52.38	100	99.84	.0002
Halam	100	85.36	2.14	100	99.84	.0002
Chakma	100	99.97	.000009	100	99.81	.0003
Mag	100	99.93	.00004	100	97.38	.068

$$X^2 .95 1 = 0.004$$

It is evident from the above table that the trend of exogamy is statistically significant among the Scheduled Tribes Tripuri and Mag only, while the trend of deviation from intra-tribe marriage (endogamy in the strictest sense) is statistically significant among the Scheduled Tribes Noatia, Jamatia, Halam and Rieng. In short, except the Scheduled Tribe Chakma, all other Scheduled Tribes of Tripura have deviated from their traditional path in respect of endogamous marriage as a whole. Of which again the Scheduled Tribes Tripuri and Mag are the defaulters in the real sense of the term.

The Table 8 reveals that the Tripuris prefer Halam women in case of intra-tribe marriage and Bengali women when it is the case of tribal-non-tribal marriage. The Halams on the other hand prefer Tripuri and Manipuri women in case of inter-tribe marriage and tribal-non-tribal marriage respectively. Each of the Scheduled Tribes Rieng, Jamatia and Noatia in case of inter-tribe marriage, place their first choice on Tripuri women while in case of tribal-non-tribal marriage, the preference for each is Bengali women. The Chakmas give preference to Mag women in case of inter-tribe marriage while the Mags

prefer Tripuri or Riang women. In case of tribal-non-tribal marriage, the former prefers Bengali women whereas the latter prefers Burmese women.

TABLE 8

First Preference of Women in Inter-Tribe and Tribal-Non-Tribal Marriages by the Scheduled Tribes of Tripura

First preference of women in						
Scheduled tribes	Inter-tribe marriage			Tribal-non-tribal marriage		
	Spouse belonging to tribe/ community	Percentage of (col. 2) out of total inter-tribe marriages	Percentage of total inter-tribe marriages	Spouse belonging to tribe/ community	Percentage of (col. 5) out of total tribal-non-tribal marriages	Percentage of the total non-tribal marriages
Tripuri	Halam	0.15	0.16	Bengali	2.83	2.85
Riang	Tripuri	6.44	6.45	Bengali	0.04	0.06
Jamatia	Tripuri	41.88	41.90	Bengali	0.08	0.08
Noatia	Tripuri	72.15	72.17	Bengali	0.13	0.16
Halam	Tripuri	12.00	14.63	Manipuri	0.11	0.16
Chakma	Mag/ Tripuri	0.02	0.04	Bengali	0.17	0.19
Mag	Tripuri/ Riang	0.04 (each)	0.08	Burmese	2.10	2.62

CONCLUDING REMARKS

The discussion reveals that among the Scheduled Tribes of Tripura the social custom of marriage within the tribal community in general (i.e., tribe endogamy) is strictly followed; only the Scheduled Tribes Tripuri and Mag have deviated from the traditional path in the real sense of the term. In their cases marriages outside the tribal community are significant.

Between intra-tribe and inter-tribe marriages (two forms of tribe endogamy), again the former is practised mainly by most of the Scheduled Tribes of Tripura. In this respect, it is observed further, from the foregoing discussions that the tribe endogamy is least disturbed among the Chakmas. The Schedu-

led Tribes Jamatia, Noatia, and Halam though do not go outside tribal community for spouses, nevertheless, prefer tribal women belonging not to their own tribes. This is again most prominent among Noatias, followed next by the Jamatias.

Enquiry into the first preference of women by different Scheduled Tribes in marriages outside their own tribes but within the tribal community reveals that all the Scheduled Tribes of Tripura other than Tripuri prefer women belonging to the Scheduled Tribe Tripuri whereas the preference among the Scheduled Tribe Tripuri is for the Halam women. The Chakmas apart from the Tripuris also prefer Mag women in inter-tribe marriage. But the Mags do not find Chakma women under similar circumstances.

It is to be noted further that all other Scheduled Tribes except the Tripuri and the Mag prefer inter-tribe marriages more than tribal-non-tribal marriages while the trend is just reverse among the Scheduled Tribes Tripuri and Mag.

In tribal-non-tribal marriage, almost all the Scheduled Tribes except the Mag and the Halam prefer mainly Bengali women. In the last two cases the preferences are for the Burmese and Manipuri women respectively. All the Scheduled Tribes except the Halam, who have married Tripuri women in inter-tribe marriages also marry Bengali women in tribal-non-tribal marriages. The Mags though marry Tripuri or Riang women in inter-tribe marriage, however, marry Burmese women in tribal-non-tribal marriage. This is probably due to the reasons that members belonging to the Scheduled Tribe Mag are Buddhist by religion, and their religion might have prevented them from getting Bengali women whereas all the other Scheduled Tribes are mostly Hindu by religion and have, therefore, no technical difficulty to have Bengali women. Leaving accidental cases, however, the trend (to marry Bengali women in Tribal-non-tribal marriage) is only statistically significant among the Scheduled Tribe Tripuri. On the contrary, the trend of marriages with Tripuri women in inter-tribe marriage, is a significant affair among most of the Scheduled Tribes of Tripura.

Since people belonging to the Bengali community are both socially and economically advanced in the union territory of Tripura, the preference for the Bengali women by the Scheduled Tribes speaks of the development of a general trend among them to establish social connections with the neighbouring advanced non-tribal community. On the same count preferences for Tripuri women by all the Scheduled Tribes under study reflect similar trend. In short, the present tendency among the Scheduled Tribes of Tripura is to make social connections with the communities or the tribes considered socially and economically superior to their's so as to enhance their own social status in the tribal society.

With these above considerations and also taking into account the fact that the Bengali community by virtue of their superior social and economical

conditions are at the helm, the social gradings of the Scheduled Tribes of Tripura under study are discernible. It appears that the berth next to the Bengali community and first among the Scheduled Tribes, is occupied by the Scheduled Tribe Tripuri, followed by the Scheduled Tribe Halam. In fact, the Halams who could be equated on par with the Scheduled Tribe Tripuri by virtue of their possessing equal social connections with the Tripuri, are, however, given a lower grading, as they are not considered to have similar status as that of the Tripuri by the Bengali community. The Scheduled Tribes Jamatia, Noatia and Riang follow them. The Mags are at the lowest rung in the tribal society of Tripura while the Chakmas adhering strictly to their traditional customs have a separate identity.

APPENDIX

Mother Tongue for Scheduled Tribes of Tripura

Scheduled tribes	Speakers			Mother tongue
	Persons	Male	Female	
1	2	3	4	5
Tripura/	5,354	2,686	2,668	1. Bengali
Tripuri	1	..	1	2. Halam
or	9	2	7	3. Hindi
Tippera	5	5	..	4. Jamatia
	21	7	14	5. Manipuri/Meithei
	10	9	1	6. Magh
	264	141	123	7. Mulsom
	4	..	4	8. Nepali
	9	4	5	9. Noatia
	1	..	1	10. Oriya
	7	3	4	11. Riang
	25	..	25	12. Rupini
	184,089	94,069	90,020	13. Tripuri
Riang	16	5	11	1. Bengali
	1	..	1	2. Bihari
	5	..	5	3. Khasi
	1	1	..	4. Magh
	1	1	..	5. Nepali

1	2	3	4	5
	2	1	1	6. Noatia
	52,926	27,117	25,809	7. Riang
Jamatia	15	9	6	1. Bengali
	14,137	7,090	7,047	2. Jamatia
	3	..	3	3. Kok-barak
	1	..	1	4. Noatia
	10,203	5,085	5,118	5. Tripuri
Noatia	21	17	4	1. Bengali
	1	1	..	2. Hindi
	19	10	9	3. Murasing
	4,433	2,317	2,116	4. Noatia
	1	1	..	5. Riang
	11,535	5,905	5,630	6. Tripuri
Halam	69	38	31	1. Banshi
	9	6	3	2. Bengali
	4	4	..	3. Bongchar
	1	..	1	4. Chakma
	213	114	99	5. Chari Chong
	5,026	2,494	2,532	6. Halam
	346	188	158	7. Jamatia
	2,033	1,100	933	8. Kalai
	54	42	12	9. Karbong
	34	17	17	10. Kudi-unspecified
	14	6	8	11. Manipuri/Meithei
	19	9	10	12. Mulsom
	4,480	2,353	2,127	13. Mursum
	6	4	2	14. Rangkhoh
	4	3	1	15. Riang
	1,988	1,008	980	16. Rupini
	2	1	1	17. Saimal
	1,995	1,036	959	18. Tripuri
Chakma	38	27	11	1. Bengali
	22,335	11,591	10,744	2. Chakma
	4	4	..	3. Hindi
	5	2	3	4. Magh
	4	2	2	5. Tripuri
Mag	60	35	25	1. Bengali
	211	94	117	2. Burmese
	10,245	5,302	4,943	3. Magh

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Stability and Quasi-Stability as Reflected in the Size and Structure of Indian Population: 1881-1961

IN demography, stability refers to a situation in which the age-distribution of both the male and female populations remain unchanged, and the rates of growth which may be positive, negative or zero, are constant. The sufficient conditions for achieving stability are that the age-specific fertility rates and the age specific mortality rates remain constant over time. Whatever be the growth rate and age-distribution at the beginning of a period (in other words, however fluctuating the growth rates may be, and however skewed the age-distribution may be) both of them will move towards stability, if the fertility and mortality schedules remain unchanged. The classical populations or the Malthusian populations may be conceived to be of this nature. Where there are some short term fluctuations in fertility or mortality, the effects are no doubt felt in the age-distribution and growth rate, but there occurs no major departure from stable condition. It is only when there are some long run monotonic changes in fertility or mortality, that visible changes begin to appear in the age-distribution and the rate of growth. Starting from an initial period of stability, if such monotonic changes occur over time, we say that a phase of destabilization has ensued. Such a process of destabilization may start because of and only as a consequence of (1) an increasing trend in fertility, (2) a decreasing trend in fertility, (3) an increasing trend in mortality, or (4) a decreasing trend in mortality. Of these various alternative generators of a process of destabilization, only the decreasing trend of fertility and/or the decreasing trend of mortality are of historical importance. The other two are neither historically illustrated, nor practically useful. Again in underdeveloped (at least demographically underdeveloped) countries like India, it is the

decreasing trend of mortality that has been of much greater significance than decreasing fertility though potentially, the latter too is equally significant. An attempt has been made in this paper to summarise the thinking on the theoretical aspects of stability and quasi-stability of well-known demographers in the world, and to fit the actual Indian population over the decades into the frame-work of these concepts. Some practical implications of these conceptual models have also been indicated.

It was Lotka who dug out the concept of stability from the debris of history and gave it a nice mathematical shape. The three fundamental equations on which the whole structure rests are as follows :

1. $c(a) = b e^{-ra} p(a)$
2. $1 = \int_0^{\infty} e^{-ra} p(a) m(a) da$
3. $\frac{1}{b} = \int_0^{\infty} e^{-ra} p(a) da$

Where—

- $c(a)$ is the proportion of the female population at age a ,
- $p(a)$ is the probability of survival of a female child born upto age a ,
- $m(a)$ is the probability that a woman aged a will bear a female child
- r is the rate of growth (designated by Lotka as the intrinsic rate of natural increase)
- b is the birth rate.

In simple language, if $p(a)$ is given, and $m(a)$ is given, that is, if both the life table and the mortality schedule are given, then, $c(a)$, that is the proportion of the population at a particular age, will be determined. Age-distribution is an exclusive function of the fertility and mortality conditions. And so is r . And so are birth and death rates. We may put it like this. Birth rate, death rate, growth rate, age-distribution, age-specific maternity and mortality rates—are all tied in a system, which is determined, and the variables of which are interrelated in a strictly defined manner. For each given combination of maternity and mortality rates, there is a unique age-distribution. But for a given age-distribution, there may be a number of combinations of maternity and mortality schedules.

To take an extreme example, suppose the age-distribution is absolutely skewed—all women in a country being concentrated at a particular age, say 10. Passing through and getting depleted at each successive age 11, 12, 13 etc.,

this cohort will enter into the reproductive phase of life, and traversing through the entire reproductive span (15-49 years) will pass out of it subsequently. From age 15 onwards, it will bear children, whose number will be determined according to the fertility schedule. The age-distribution of the second generation will therefore be a combined result of the fertility schedule $m(a)$ and survival curve $p(a)$. After 15 or 20 years, the second generation of girls will start reproducing children of the third generation, while the second generation is still continuing to bear children. After another 15/20 years, while the second generation is still continuing to give birth to children in small tricles the third generation will be in the middle of their child-bearing period and the fourth generation will have started being born. Thus the different generations are mixed up more and more, and the initial peakedness of the age-distribution will be more and more flattened. Thus the phenomena that births are spread out over a span of time, and there is a definite time-schedule of fertility lead to the inevitable consequence that generation after generation the age-curves get flatter, and ultimately even the births would be in the exponential sequence, expressed by the equation stated above.

The stable population spells out the implication of a particular schedule of fertility, combined with a particular schedule of mortality. Critics have questioned the usefulness of the concept on the ground that the stable population never exists in the real world. In all scientific research as in demography we have to build models which never exist, but which may be used in the study of situations that do exist and analysis of data that are real. The Life Table too is a purely hypothetical construct—which never applies to any actual population, but which spells out clearly the significance of a given set of age-specific mortality rates. The usefulness of the Life Table in both theoretical research and practical problems of life insurance etc. is beyond question. To the question of usefulness of the concept of stability we will return later.

If there are two populations with the same age-specific mortality rates—one of them subject to higher fertility rates than the other, how will their age-distributions compare? The population with a higher fertility will have a younger age-distribution. The age-curve will be steeper. And the population with a lower fertility will have an older age-distribution, i.e., the age-curve will be flatter. This is so because higher fertility means a higher birth rate and a larger supply of children at the base of the age-pyramid. A larger supply of children leads to an increase in the number of the younger people in the total population, i.e., makes the base of the pyramid broader. A lower fertility means a reduced supply of children, an erosion of the base of the pyramid, and a shrinkage in the number of young people—thus leading to a relative increase in the number of older people in the total population. Similarly, if there are two populations with the same fertility schedule, one of

them subject to higher mortality rates than the other, then the population with higher mortality rates will have an older age-structure than the population with lower mortality rates. The number of births being given, higher mortality rates will mean a lesser loss out of a given supply of births, and hence lead to a relative increase in the number of children. The age-profile will thus be younger.

So much is about the comparative features of two different populations with different levels of fertility and mortality. Now let us compare the age-distribution of the same population at two points of time—during which fertility rates have been changing. Here is the concept of quasi-stability. Quasi-stability refers to a dynamic situation when, starting from an initial point of stability, changes occur in fertility and/or mortality. A considerable volume of technical literature has been developing on this point. Avoiding mathematical intricacies, such effects may be stated simply in the following manner. The effect of rising fertility is to make the population younger. The effect of declining fertility is to make it older. The effect of rising mortality is to make it older, but to a much smaller extent than the effect of falling fertility. The effect of falling mortality is to make the population younger—again, to a much smaller extent than the effect of increasing fertility. In whichever direction the effects may be generated, changes in fertility affects the age-structure much more strongly than changes in mortality.

Historically, the effects of a decline in mortality are much more important than either the effects of a rise in mortality or those of a rise or fall in fertility. The typical departure from stability of classical populations occurs through downward changes in mortality. In almost all the developing countries the most outstanding feature of the demographic transition that has been taking place is a secular decline in mortality with fertility conditions more or less unchanged. Consequently in the growing literature on quasi-stability, more attention has been paid to the analysis of the implications of a down-trend in mortality. We may first clearly recognise the distinction between a stable population with a low level of mortality and a quasi-stable population with that very level of mortality at a particular point of time, which used to have a higher level of mortality on an earlier date, from when a down-trend in mortality had started—making the level of mortality what it is to-day. The proportion of the population at ages below (say) 30/35 years is lower in the latter than in the former. The population at ages above 35 years is higher in the latter than in the former. There are rigorous mathematical proofs for this. However, from the common sense point of view it is not difficult to understand the dynamics of the situation. If a low level of mortality (along with a given fertility schedule) operates for an indefinitely long period, the stable condition that is eventually reached is one of a young age-distribution. But if this low level of mortality does not have sufficient time to work out its full

effects (because only in the recent past mortality was higher) it will no doubt pull down the age-distribution somewhat towards a younger profile, but the full effects will not yet have been felt and the age-distribution will be less young than the stable age-distribution.

The basic proposition in this paper is that the Indian population largely revealed the characteristics of stability prior to 1921 and has been revealing those of quasi-stability since 1921. In other words fertility and mortality in India had been remaining substantially unchanged until 1921. After 1921, though there has been a monotonic decline in mortality, there has not occurred any remarkable change in fertility. The evidence of stability lies in the similarity of the age-distribution decade after decade, and the near-equality of the rate of natural increase during the stable period ; the evidence of quasi-stability lies in some marginal shift in the age-structure and an acceleration in the rate of growth in a manner that is largely expected in a population subjected to a secular down-trend in mortality.

TABLE I

Area Covered by Indian Census 1881-1961

Year	Total area (sq. miles)	Increase in area (sq. miles)
1881	1382624*	—
1891	1560160	177536
1901	1766597	206437
1911	1802657	36060
1921	1805332	2675
1931	1808679	3347
1941		
1951	1176864**	—
1961	1232561†	55697

*For area figures from 1881 to 1931, see *Census of India, 1931*, Vol. I, Pt. I, pp. 1-5.

***Census of India, 1951*, Vol. I, Pt. IIA, page 4.

†*Census of India, 1961*, Vol I, Pt. IIA(i), page 71.

This represents the area figures furnished by the Surveyor General of India. The figure furnished by the State Survey Departments is 1228402 sq. miles.

TABLE 2

Population Increase in India, 1881-1921 and in Indian Union, 1921-1961

	Total population (000)		Decennial Increase	
	Male	Female	Male p.c.	Female p.c.
1881*	129949	123947	8.55	11.14
1891	141056	137752	4.41	
1901	147280	143126		3.90
1911	159546	152969	8.33	6.88
1921	163909	154904	2.73	1.26
1921**	128546	122775	11.19	10.60
1931	142930	135789	11.37	11.32
1941†	162648	153727	11.40	11.42
1951	185528	175560		
1961	226293	212942	21.97	21.29

*Figures for the years 1881-1921 have been collected from *Census of India, 1931*, Vol. I, Pt. I, page 34. Population increase due to inclusion of new areas have been excluded.

**Figures for the years 1921-61 have been collected from *Census of India, 1961*, Vol. I, Pt. (i). All figures have been adjusted for the area included in Indian Union as defined in 1961.

†Corrected for artificial inflation of numbers in the Census of 1941 due to communal rivalry.

TABLE 3

Growth Rate of Population in India, 1881-1921 and in Indian Union, 1921-1961

	Male	Female
1	2	3
1881-1891	.008204	.010562
1891-1901	.004316	.003826
1901-1911	.008001	.006654
1911-1921	.002693	.001252

1	2	3
1881-1901	.006265	.007196
1891-1911	.006163	.005243
1901-1921	.005351	.003957
1921-1931	.010607	.010075
1931-1941	.010769	.010724
1941-1951	.010796	.010814
1951-1961	.019860	.019301

We may first discuss the features of population growth and then those of its age-profiles. In the Census returns of 1881, the total population of the sub-continent was 25 crores. The number increased to 29 crores in 1891, but only to 29.5 crores in the next decade (1891-1901). A part of the big increase in the decade 1881-91 is no doubt due to an increase in the area covered by the latter census. But still there remains a net increase of 3 crores or about 12 per cent to account for. Demographers tend to think that the whole of this apparent increase could not be explained by real growth in population alone. A part must have been due to relatively greater undercount in 1881 than in 1891. Census operations had started in India in the year 1872. With the passage of time, as more and more censuses were taken in successive decades, both the coverage and quality of operations improved, and it is only natural to expect that the extent of undercount due to ignorance, inefficiency or inexperience would gradually decline. The small increase in the decade 1891-1901 was obviously due to wide spread diseases and disaster that have been well documented in the social history of India. While the growth during 1901-11 represented more or less the long-run forces, that during 1911-21 was once again a result of extensive epidemics in the latter part of the decade.

When we calculate the rate of growth on the basis of 10-yearly increase, that is increase in population from one census to the next, the annual rates of growth appear to be extremely uneven—a phenomenon that is inconsistent with the concept of stability. But if we calculate the rate of growth on the basis of a 20-year period, then the annual rate of growth becomes nearly equal throughout the period and conform much more closely to the concept of stability. Our argument in favour of a 20-year period may be stated as follows. The typical behaviour of the classical population is characterised by a period of normal positive growth implied by the stable levels of fertility and mortality followed by a period of slow growth or negative growth ushered in by famines, pestilences and epidemics, the so-called positive checks of Malthus. Hence when we are studying the long run perspective, it is more logical to take one full cycle of normal level and depressed levels of growth than a part of the cycle representing the fluctuations in a transitory period.

It will be noticed that since 1921 the rates of growth have been shown only on the basis of 10-year periods. This is because the demographic situation since 1921 was part of an even keel, and the large scale operation of the positive checks had stopped—thanks to the development of a transport system all over the country and the introduction of rudimentary public health measures. There was indeed an onset of the secular decline in mortality—leading to an uninterrupted growth in population. In a period of declining mortality accompanied by unchanging fertility, the rate of growth accelerates. The rate of growth calculated on the basis of a 10-year period represents an average rate for the decade, and hence is lower than the instantaneous rate. If we had annual censuses, the best measure would be given by calculation on the basis of a one-year increase. As we have been having a census only once in ten years, the smallest unit of time for which the rate could possibly be calculated is ten years. In such cases, the longer the unit of time, the further removed is the instantaneous rate from the period-average rate.

The hypothesis framed on the basis of the figures shown in Table 3 is that the pattern of growth rates in India during the last century reveals the characteristics of stability upto 1921 and those of quasi-stability since 1921. The remarkable rise in the growth rate in the decade 1951-61 generated by the decline in mortality not only corroborates, but strengthens the hypothesis.

TABLE 4

Age-Distribution of the Male Population of India, 1881-1921

Age Group	1881* P.C.	1891** P.C.	1901† P.C.	1911†† P.C.	1921‡‡ P.C.
1	2	3	4	5	6
0-4	13.18	14.09	12.54	13.27	12.02
5-9	14.32	14.28	13.94	13.83	14.71
10-14	12.14	11.39	12.64	11.65	12.45
15-19	8.11	8.35	8.66	8.48	8.42
20-24	7.99	8.02	7.87	8.22	7.75
25-29	8.96	8.76	8.79	8.96	8.65
30-34	8.85	8.42	8.48	8.29	8.25
35-39	5.87	6.13	6.09	6.22	6.36
40-44	6.42	6.38	6.49	6.34	6.21
45-49	3.44	3.66	3.70	3.80	3.92
50-54	4.36	4.11	4.37	4.32	4.34

1	2	3	4	5	6
55-59	1.61	1.79	1.77	1.77	1.85
60+	4.75	4.62	4.66	4.85	5.07
Total	100.00	100.00	100.00	100.00	100.00

**Census of India, 1881, Vol. I, Pt. II.*

***Census of India, 1891, Vol. I, Pt. II.*

†*Census of India, 1901, Vol. I, Pt. II.*

††*Census of India, 1911, Vol. I, Pt. II.*

†††*Census of India, 1921, Vol. I, Pt. II.*

TABLE 5

Age-Distribution of the Female Population of India, 1881-1921

Age Group	1881* P.C.	1891** P.C.	1901† P.C.	1911†† P.C.	1921††† P.C.
0-4	14.19	15.27	13.39	14.11	13.16
5-9	13.83	13.96	13.82	13.49	14.94
10-14	10.06	9.46	10.82	9.90	10.81
15-19	7.79	8.11	8.35	7.99	8.15
20-24	9.05	8.97	8.92	9.32	8.81
25-29	9.25	9.04	8.95	9.14	8.85
30-34	8.81	8.46	8.51	8.54	8.33
35-39	5.27	5.55	5.57	5.66	5.65
40-44	6.45	6.26	6.52	6.50	6.21
45-49	3.18	3.23	3.39	3.45	3.46
50-54	4.64	4.26	4.52	4.58	4.38
55-59	1.57	1.70	1.69	1.66	1.68
60+	5.91	5.73	5.55	5.66	5.57
Total	100.00	100.00	100.00	100.00	100.00

*, **, †, ††, ††† See the foot notes of Table 4.

TABLE 6

Age-Distribution of the Male Population of Indian Union 1931-61

Age Group	1931* P.C.	1941** P.C.	1951† P.C.	1961†† P.C.
0-4	13.15	13.03	13.25	14.68
5-9	13.00	14.23	12.56	14.63
10-14	12.34	11.78	12.37	11.62
15-19	8.99	8.09	9.09	8.23
20-24	8.23	7.60	8.01	8.05
25-29	8.89	8.41	8.24	8.20
30-34	7.73	7.66	7.31	7.07
35-39	6.63	6.55	6.42	6.02
40-44	5.89	5.91	5.87	5.35
45-49	4.45	4.61	4.57	4.31
50-54	3.90	4.33	4.20	4.04
55-59	2.29	2.37	2.57	2.34
60+	4.51	5.43	5.54	5.46
All ages	100.00	100.00	100.00	100.00

**Census of India, 1931, Vol. I, Pt. II.*

The partially smoothed age-figures have been unsmoothened. Figures for territories outside Indian Union had been excluded.

***Census of India, 1941.* Y—Sample tables have been used for nine Provinces, for Rajasthan, Mysore and Baroda, original Census Tables have been used. Areas for which no-data were available, were excluded for the purpose of age-distribution.

†*Census of India, 1951, Age-tables, Paper No. 3, 1954.*

††*Census of India, 1961, Age-tables, Paper No. 3, 1964.*

The difficulties of obtaining the age-distribution for India over the past decades are many—the most important of which are the frequent changes in the territorial jurisdictions of the country and the coverage of the census operations. If we are to compare the age-distributions for several census years, we have to make it sure that the population covered in the various censuses is

closed. That is, not only there must have been no migration in or out, but also no new area should have been added or old area cut off from the census coverage. Census Reports of 1881 onwards provide a statement of the area covered in each census. Our presumption is that though both area and coverage have varied during the period 1881-1921, if we take the Indian Sub-continent as a whole, such changes will not have significantly affected the age-distribution. In other words, we assume that the population in the areas added as a result of change in territorial jurisdiction or an extension of census coverage had more or less the same age-distribution as that in rest of the country. Also the population in the new areas was so small in relation to the total population in the country, that even if there are some differences between the age-structure of the two populations, the age-structure of the country as a whole remains substantially unaltered by such changes.

TABLE 7

Age-Distribution of the Female Population of Indian Union, 1931-61

Age Group	1931* P.C.	1941** P.C.	1951† P.C.	1961†† P.C.
0-4	14.31	13.87	13.86	15.48
5-9	12.88	14.30	12.83	14.86
10-14	11.24	10.52	11.86	10.83
15-19	8.98	7.86	9.02	8.12
20-24	9.13	8.48	8.66	9.00
25-29	8.99	8.76	8.28	8.49
30-34	7.78	7.79	7.39	6.98
35-39	6.18	6.20	5.92	5.57
40-44	5.60	5.79	5.56	5.06
45-49	3.97	4.18	4.13	3.91
50-54	3.75	4.23	4.05	3.75
55-59	2.13	2.14	2.33	2.14
60+	5.06	5.88	6.11	5.81
All ages	100.00	100.00	100.00	100.00

*, **, †, †† See the foot-notes of Table 6.

This, however, is not true in respect of the drastic changes in boundary consequent upon the partition of the country in 1947. That is why we have shown the age-distribution in two sets—one set for the period 1881-1921 which provides figures for the Indian Sub-continent as a whole (Tables 3 and 4), and the other set for the period 1931-61 which provides figures for Indian Union (minus Kashmir and Jammu) (Tables 5 and 6) as defined now. It has been rather easy to collect the relevant data for Tables 3 and 4 directly from the Census Tables for 1881, 1891, 1901, 1911 and 1921. But the construction of Tables 5 and 6, has involved a heavy computational labour. For the years 1931 and 1941, the figures of the then British Indian provinces and the Princely States have had to be recast into those for territories now belonging to the Indian Union. Thus Burma, Aden, Baluchistan, North Western Frontier Provinces and Sind have been altogether excluded from our calculation. In case of areas like Bengal, Punjab, Assam etc. where parts of a province (or a Princely State) were incorporated into the Indian Union, the other parts being included in Pakistan, the age-figures had to be collected at the district level. In some cases like West Dinajpur or Malda in West Bengal the National boundary cut across district boundaries. But the district was the lowest areal unit for which census reports provide age-data. Hence, when we had to compute figures for parts of a district, we had to take recourse to some sort of estimation. Such estimation was based on the assumption that the age-profile of a part of a district was similar to that of the district as a whole.

The biases and mis-statements in the census age returns presented a second major difficulty in applying the frame of the stable analysis to the Indian age-distribution. The Indian Census Actuaries have developed various ingenious techniques to graduate the age data in order to use them for the purpose of constructing Life Tables. For our present purpose, however, we have chosen to use the raw age-data and not the graduated one. The reason is that the drastic smoothening processes adopted by the Census Actuaries ironed out not only the biases and distortions in the age-returns but also the real peaks and troughs that existed in the Indian age-distribution, and thus rendered the age-distribution figures largely unreal and fictitious. No doubt the comparability of the age-distribution of the successive censuses has been greatly hampered by the existence of the biases of unknown magnitudes. This difficulty may be somewhat overcome by studying the cumulative proportions of the total population in successive age-sectors.

The comparability of the age-structures was also rendered difficult by the fact that raw age-figures were not available for the year 1931. It is a big misfortune for students of Indian demography that the Census Commissioner for 1931 chose to present the age-data after a preliminary smoothening and that the raw age-data for 1931 have been lost for ever. We have therefore, un-smoothened the 1931-age-data by some improvised method.

The smoothening formula adopted in 1931 was as follows :

$$\begin{aligned} P_{5-10} &= \frac{1}{2}(P_{4-6}) + \frac{1}{2}(P_{7-13}) \\ P_{10-15} &= \frac{1}{2}(P_{7-13}) + \frac{1}{2}(P_{14-16}) \\ P_{15-20} &= \frac{1}{2}(P_{14-16}) - \frac{1}{2}(P_{17-23}) \\ \text{etc.} & \quad \text{etc.} \quad \text{etc.} \end{aligned}$$

The unsmoothening technique adopted by us is as follows. The smoothening formula of 1931 was applied to the single year age-distribution of 1951 Census. Then the ratio of smoothed figures in an age-group to the raw figures in that age-group was found for the 1951 age-data. Finally the smoothed figure of 1931 was multiplied by this ratio. In short, the unsmoothening formula adopted by us was—

$$\text{Raw 1931} = \frac{\text{Raw 1951}}{\text{Smoothed 1951}} \times \text{Smoothed 1931}$$

Tables 4 and 5 show the proportion of the male and female population in different age-groups from 1881-1921 for undivided India. Tables 6 and 7 show the same for the Indian Union for the period 1931-61. One cannot but be struck by the remarkable similarity of the age-distributions during both these periods. Though there are some distinctive features in the two periods (to which we will come later) all the age-distributions during these 80 years reveal the following characteristics :

(a) The Indian population is rather young. Contrast the British population or Japanese population for instance.

TABLE 8

Age-Distribution of the Female Population in Japan, France and U.K.

1962	Japan	France	U. K.
1	2	3	4
0-1	1.59	1.69	1.60
1-4	6.34	6.65	5.88
5-9	8.47	7.37	6.66
10-14	11.21	8.56	7.52
15-19	9.39	6.50	6.62
20-24	9.05	5.78	6.04
25-29	8.61	6.47	5.88

1	2	3	4
30-34	8.07	6.75	6.20
35-39	7.22	6.79	6.81
40-44	5.97	5.24	6.52
45-49	5.39	5.26	6.89
50-54	4.85	5.24	6.88
55-59	3.83	6.14	6.49
60 & above	10.02	20.56	20.01
	100.00	100.00	100.00

The proportion of female population in the age-sector 0-14 is 21.66% in U.K., 24.27% in France, 27.60% in Japan and 41.17% in India in 1961. On the other hand, the proportion in ages above 60 is 20.01% in U.K., 20.56% in France, 10.02% in Japan and 5.81% in India. The higher proportion in India in the young ages indicates its youngness. The higher proportion in U.K. or Japan in older ages indicates 'oldness' of their populations.

(b) Though there are small variations in the individual 5-yearly age-groups from Census to Census, the overall structures remain substantially unchanged. It may be a good hypothesis to make that the small discrepancies are a consequence of age-mis-statements rather than of any real age-differences.

(c) Two important exceptions are 1901 and 1921. The proportion of population in the age-group 0-4 in both these years dropped conspicuously. This was evidently a consequence of the higher mortality in the decades 1891-1901 and 1911-21. A steep rise in overall mortality causes more than a proportionate rise in the mortality rate for the lowest age-group. The converse position, as we have already noted, has been widely discussed by demographers writing on quasi-stability.

(d) The converse position referred to above was witnessed in the period 1921-61. Mortality started declining—first slowly and then at an accelerated tempo. Consequently, the proportion in the younger age-groups increased conspicuously—a situation typical of quasi-stability. If these changes in the age-distribution are read jointly with the acceleration in the rate of increase (Table 3) the evidence in support of the assumption of quasi-stability seems convincing.

The assumption of stability does not rule out the possibility of short-term fluctuations in the birth rate or fertility rates—that might have taken place in India in the past decades as a consequence of diverse social, political and economic causes operating transitorily. Such fluctuations in fertility would

send out small ripples in the age-curve, but would leave its broad slope unaffected. If on the other hand there were any secular changes in fertility, that would have invariably altered the slope of the age-curve. The absence of any such noticeable alteration in the broad slope of the curve seems to be a conclusive evidence of stability.

TABLE 9

Differences in the Proportion of the Total Male Population in the Respective Age-Sectors in the Successive Indian Censuses from those in 1881

Age-group	1891-1881	1901-1881	1911-1881	1921-1881
0-4	.91	-.64	.09	-1.16
5-9	-.04	-.38	-.49	.39
10-14	-.75	.50	-.49	.31
15-19	.24	.55	.37	.31
20-24	.03	-.12	.23	-.24
25-29	-.20	-.17	.00	-.31
30-34	-.43	-.37	-.56	-.60
35-39	.26	.22	.35	.49
40-44	-.04	.07	-.08	-.21
45-49	.22	.26	.36	.43
50-54	-.25	.01	-.04	-.02
55-59	.18	.16	.16	.24
60-	-.13	-.09	.10	.32
Total	3.68	3.54	3.32	5.08

TABLE 10

Differences in the Proportion of the Total Female Population in the Respective Age-Sectors in the Successive Indian Censuses from those in 1881

Age-group	1891-1881	1901-1881	1911-1881	1921-1881
1	2	3	4	5
0-4	1.08	-.80	-.08	-1.03
5-9	.13	-.01	-.34	1.11

1	2	3	4	5
10-14	— .60	.76	— .16	.75
15-19	.32	.56	.20	.36
20-24	— .08	— .13	.27	— .24
25-29	— .21	— .30	— .11	— .40
30-34	— .35	— .30	— .27	— .48
35-39	.28	.30	.39	.38
40-44	— .19	.07	.05	— .24
45-49	.05	.21	.27	.28
50-54	— .38	— .12	— .06	— .26
55-59	.13	.12	.09	.11
60-	— .18	— .36	— .25	— .34
Total	3.98	4.04	2.54	5.98

TABLE 11

Differences in the Proportion of the Total Male Population in the Respective Age-Sectors in the Successive Indian Censuses from those in 1931

Age-group	1941-1931	1951-1931	1961-1931
0-4	— .44	— .45	1.17
5-9	1.42	— .05	1.98
10-14	— .72	.62	— .41
15-19	— 1.12	.04	— .86
20-24	— .65	— .47	— .13
25-29	— .23	— .71	— .50
30-34	.01	— .39	— .80
35-39	.02	— .26	— .61
40-44	.19	— .04	— .54
45-49	.21	.16	— .06
50-54	.48	.30	.00
55-59	.01	.20	.01
60-	.82	1.05	.75
Total	6.32	4.74	7.82

TABLE 12

Differences in the Proportion of the Total Female Population in the Respective Age-Sectors in the Successive Indian Censuses from those in 1931

Age-group	1941-1931	1951-1931	1961-1931
0-4	— .44	— .45	1.17
5-9	1.42	— .05	1.98
10-14	— .72	.62	— .41
15-19	— 1.12	.04	— .86
20-24	— .65	— .47	— .13
25-29	— .23	— .71	— .50
30-34	.01	— .39	— .80
35-39	.02	— .26	— .61
40-44	.19	— .04	— .54
45-49	.21	.16	— .06
50-54	.48	.30	.00
55-59	.01	.20	.01
60-	.82	1.05	.75
Total	6.32	4.74	7.82

TABLE 13

Differences in the Proportion of Total Population in the Respective Age-Sectors in the Projected Population of India from those in the Actual Population in 1951

Age-group	Male			Female			
	1961-1951	1971-1951	1981-1951	1961-1951	1971-1951	1981-1951	
	1	2	3	4	5	6	7
0-4	.02	— 2.37	— 4.71	— .06	— 2.52	— 4.85	
5-9	.42	— .38	— 2.03	.42	— .50	— 2.17	
10-14	— .17	.37	— .92	— .13	.36	— .95	
15-19	— .27	.19	.01	— .17	.28	.12	
20-24	— .26	— .22	.65	— .15	— .07	.85	
25-29	— .15	— .17	.63	— .14	— .07	.82	
30-34	— .05	.02	.40	— .09	.05	.51	

1	2	3	4	5	6	7
35-39	-.01	.15	.47	.00	.14	.55
40-44	.04	.24	.61	.00	.18	.60
45-49	.06	.35	.77	.02	.23	.62
50-54	.09	.37	.81	.05	.26	.64
55-59	.08	.40	.85	.07	.29	.69
60-	.20	1.05	.46	.81	1.37	2.57
Total	1.82	6.28	15.32	1.48	6.32	15.94

(Projection by Coale and Hoover : Assumption —50 p. c. decline in fertility between 1956 and 1986)

TABLE 14

Differences in the Proportion of the Total Population in the Respective Age-Sectors in the Projected Indian Population 1956-86 from those in Actual Indian Population in 1951

Age-group	Male			Female		
	1961-1951	1971-1951	1981-1951	1961-1951	1971-1951	1981-1951
0-4	0.73	0.80	1.08	0.62	0.62	0.88
5-9	0.30	0.80	0.95	0.30	0.72	0.80
10-14	-0.28	0.19	0.21	-0.24	0.18	0.19
15-19	-0.36	-0.47	-0.20	-0.27	-0.40	-0.11
20-24	-0.34	-0.80	-0.58	-0.24	-0.66	-0.38
25-29	-0.22	-0.69	-0.86	-0.22	-0.59	-0.68
30-34	-0.11	-0.44	-0.88	-0.16	-0.41	-0.76
35-39	-0.07	-0.26	-0.66	-0.06	-0.26	-0.56
40-44	-0.01	-0.12	-0.39	-0.05	-0.17	-0.38
45-49	0.02	0.04	-0.11	-0.02	-0.07	0.23
50-54	-0.04	0.12	0.06	0.01	0.01	-0.08
55-59	0.06	0.19	0.22	0.04	0.09	0.07
60-	0.24	0.58	1.16	0.29	0.94	1.24
Total	2.78	5.56	7.36	2.52	5.12	6.36

(Projection by Coale and Hoover : Assumption declining mortality and constant fertility)

TABLE 15

Differences in the Proportion of the Total Male Population in U. S. A. in the Respective Age-Sectors in the Successive U. S. Censuses from those in 1880

Age group	1890-1880	1900-1880	1910-1880	1920-1880	1930-1880	1940-1880	1950-1880
0-4	-2.04	-1.85	-2.36	-2.74	-4.34	-5.72	-2.90
5-9	-0.59	-1.04	-2.27	-1.86	-2.26	-4.29	-3.43
10-14	-0.16	-0.48	-1.25	-1.04	-1.26	-1.98	-3.54
15-19	-0.33	-0.17	-0.26	-1.13	-0.64	-0.44	-2.66
20-24	-0.05	-0.56	0.05	-1.14	-0.85	-0.73	-1.83
25-29	0.54	0.49	0.88	0.42	-0.33	0.17	-0.03
30-34	0.84	0.40	0.60	0.74	0.13	0.47	0.28
35-39	0.37	0.66	0.81	1.05	1.20	0.76	1.03
40-44	0.26	0.99	0.85	1.10	1.59	1.43	1.59
45-49	0.15	0.50	0.79	1.16	1.56	2.10	1.64
50-54	-0.03	0.20	0.66	0.77	1.14	1.95	1.75
55-59	0.05	0.29	0.49	0.88	1.21	1.87	2.19
60-	0.33	0.57	1.01	1.79	2.85	4.41	5.91
Total	5.74	8.20	12.28	15.82	19.36	26.32	28.78

TABLE 16

Differences in the Proportion of the Total Female Population in U. S. A. in the Respective Age-Sectors in the Successive U. S. Censuses from those in 1880

Age group	1890-1880	1900-1880	1910-1880	1920-1880	1930-1880	1940-1880	1950-1880
1	2	3	4	5	6	7	8
0-4	-1.85	-1.73	-1.90	-2.55	-4.23	-5.66	-3.16
5-9	-0.46	-0.95	-1.93	-1.71	-2.20	-4.34	-3.69
10-14	-0.02	-0.41	-0.92	-0.87	-1.16	-2.05	-3.69
15-19	0.42	-0.07	-0.04	-0.91	-0.53	-0.50	-2.78
20-24	-0.03	-0.34	-0.15	-0.78	-0.68	-0.65	-1.74

1	2	3	4	5	6	7	8
25-29	0.32	0.54	0.53	0.51	-0.14	0.38	0.13
30-34	0.57	0.24	0.31	0.46	0.23	0.60	0.38
35-39	-0.07	0.07	0.36	0.43	0.76	0.50	0.76
40-44	0.04	0.48	0.42	0.63	1.01	1.17	1.31
45-49	0.16	0.23	0.54	0.86	1.18	1.81	1.42
50-54	0.15	0.20	0.59	0.66	1.00	1.68	1.68
55-59	0.21	0.65	0.56	0.95	1.34	1.89	2.32
60-	0.56	1.09	1.63	2.32	3.42	5.17	7.06
Total	4.86	7.00	9.88	13.64	17.88	26.40	30.12

We have repeatedly referred to the similarity of the age-structures in the different decades despite the small discrepancies in proportions in the respective age-groups in various Censuses. The question naturally arises how much discrepancy could be accommodated within the broad assumption of stability, and what is the limit beyond which such discrepancies should not go without affecting the very validity of the assumption (of stability)? In the absence of any recognised test of the similarity of age-distributions, we have made an attempt to evolve an improvised method. Suppose we have the age-distributions of two populations— $c(a)$ and $c'(a)$. The index of dissimilarity of these two age-distributions is given by the algebraic sum of the differences between $c(a)$ and $c'(a)$ over all ages.

In other words,

if I is the index of dis-similarity,

then $I = \sum [c(a) - c'(a)]$

If the two age-distributions are exactly identical

then $c(a) - c'(a) = 0$ for all values of a ,

and hence $I = 0$.

If on the other hand, the two age-distributions have the theoretically maximum divergence,

then $I = 200$, because $c(a) = 100$ in both cases. For actual populations the value of I will be more than 0, but very much less than 200. Smaller the value of I , more similar are the age-distributions; and larger the value of I , the more divergent are the age-distributions.

We have calculated the values of I for India for the period 1881-1921 by taking the age-distribution of 1881 as the base, and comparing with it the

age-distribution of each of the successive Censuses. (Tables 9 and 10). It may be remembered that the quantity I has two components:

- (1) the sum of differences in the actual age-distribution (I_a) and,
- (2) the sum of differences in the observed age-distribution due to age-mis-statements (I_e).

The precise magnitude of any of these two quantities is unknown because we do not have any exact measurement of the age-distortion. There is thus a theoretical possibility that the varying magnitudes of age-distortion conceal an increasing or decreasing trend in the real values of I_a . However, the probability of such an eventuality is indeed small. Even though the magnitude of age-distortion is unknown, it is very unlikely, that during the period 1881-1921, it moved in any particular direction or in any systematic manner. Assuming that the component of the quantity I due to age-distortions (I_e) remained more or less the same, we may hypothesize that the component due to real differences in the age-structure (I_a) remained substantially of the same magnitude. In other words, the age-distribution remained broadly stable—though there might have been some small variations in the proportions of the total population in different age-sectors.

The same argument may be advanced in respect of the age-distribution during the period 1931-1961, with the important exception that the value of I tended to increase somewhat during this period. The probability of the error-component of I being responsible for this increase is small, so that it seems likely that there was some real increase in I_a . The direction of this difference fits in well with the hypothesis of quasi-stability. During a period of quasi-stability the values of $[c(a) - c'(a)]$ are not only positive, but also tend to increase for the youngest age-groups as well as the old age-groups (due respectively to the left arm and right arm effects of the curves of mortality).

In the absence of any rigorous argument, we have tried to test the hypothesis by harnessing some corroborative evidence from other age-distributions under known conditions of mortality and fertility. From the midst of a large number of available age-distributions illustrating the point, we have cited two—

- (1) The age-distribution of the male and female populations in U. S. 1880-1950.
- (2) The age-distribution of the male and female populations of India as projected by Coale and Hoover for the period 1956-1986.

It may be noted that since we have used the corrected age-distribution in respect of U.S. and the projected age-distribution in respect of India, the error Component of I (i.e., I_e) must have been small. And the probability is large that the increasing value of I reflects a continuously increasing divergence of the actual age-distributions. Both the magnitude and the direction of this

divergence are significant. By contrasting the values of $[c(a) - c'(a)]$ as well as the values of I of these age-distributions with those for the actual Indian age-distribution during 1880-1961, we observe the following features:

- (1) During 1880-1920, the U. S. age-distribution varied significantly, and it is known that fertility (and also mortality) was subject to a declining trend. On the other hand, Indian age-distribution did not vary.
- (2) During 1951-81, the projected Indian age-distribution assumed a decline in fertility in one case, and constancy of fertility in the other. The shifts in the actual Indian age-distributions during 1881-1961 resembled those in the projected age-distributions under assumptions of constancy of fertility rates (and declining mortality), but sharply differed from those under assumptions of declining fertility (and declining mortality).
- (3) The shifts in the age-distribution in the projected Indian age-distributions under assumption of declining fertility resembled those in the actual age-distributions in U. S. during a period of actually declining fertility.

Thus both the negative and positive evidence in the actual as well as the projected age-distributions seem to strengthen our hypothesis of no-change in the fertility and mortality rates during 1881-1921 and of no-change in fertility accompanied by declining mortality during the period of 1921-61.

What are the uses of these models? Suppose, the features of stability and quasi-stability are truly reflected in the size and structure of Indian population during the last century. What follows from that? Demographers have lately shown various uses of these concepts. We may briefly refer to two broad classes of use. First, these models help in the estimation of various parameters of the population on the basis of two known parameters. For instance, if the age-distribution and growth rate are known, birth rate, death rate, gross reproduction rate, expectation of life at birth etc. could be estimated. Or if the rate of child survivorship and growth rate are known, the age-distribution as well as many of the other parameters could be estimated and so on.

Thus new possibilities are opened up for constructing the Life Tables for India for past decades and estimating the vital rates and studying their trends over time. These models largely make up for the unavailability of demographic data for past periods, and help to generate data with the help of the type of data we do possess in India more abundantly than most of the Afro-Asian and Latin American Countries, e. g., the census data on population and age-distribution for ten consecutive censuses. Also these models may possibly be

used to make estimates of the Indian population in the pre-census periods and check whatever estimates have been already made of them.

Secondly, these models can be used as periscopes to peep into the future. Using these models we can visualize more clearly than ever in which direction the rate of growth is destined to move, or to what extent the size of the labour force will relatively swell or contract. Using these models again, we can anticipate what a huge potential of rapid growth is locked up in the young age-distribution of India today. The rapid growth will result from not only the decline in mortality that is expected to continue, but also from the emergence of an age-structure that favours higher birth rates. It is through such analysis that the magnitude of efforts in terms of family-planning etc. needed to arrest rapid growth or decelerate its rate will be apparent.

**Changing Patterns of Rural Societies and Urbanization,
rural-urban inter-relations**

ANIMA BHATTACHARYA

Declining Trends in Residential Towns of West Bengal

WEST Bengal is considered as a highly industrialised state. She has a high density of population. But this state failed to get rid of her surplus rural population overcrowded in agriculture to any significant extent in the twenty years preceding 1961. Urban population of this State consisted of 21.3 per cent of total population in 1941, 24.8 per cent in 1951 and 24.5 per cent in 1961. Urban centres sheltered 13 to 15 per cent in 1901 to 1921 and 17 per cent in 1931. Excluding Calcutta and industrial area, Railway and Industrial towns, the proportion of population in residential towns was roughly 23 per cent. The urban population in West Bengal as a whole increased by 22.59 lakhs between 1951 and 1961, but fifty per cent increase occurred in Class I towns, while class V and class VI towns accounted for an increase of 260,000 or less than 10 per cent. The general growth rate for the total population between 1951 and 1961 is 32.79 % with a stagnant urban population.

Considering the fact that, immigrant population form a large bulk of urban population, West Bengal's economic expansion is failing to absorb surplus rural population.

Types of town

The towns of West Bengal vary considerably in character. But they can be classified into two distinct classes—1) Industrial, and 2) Residential or Non-industrial towns.

Industrial towns are those which have sprung up as the homes of industry and commerce, such as mill municipalities up and down the Hooghly river, the centres of jute collecting trade, and Calcutta and industrial area.

All these towns have grown rapidly along with industrialisation and the development of the large industries of the Western type and are steadily prospering.

Residential towns present a different picture. They are sleepy country towns, with low density per square mile and of semi-rural character. Many of them are nothing but over-grown villages. They do not possess even tarred roads, good surface sewerage and drainage, protected water supply or electricity or sanitary system of sewerage disposal. None of them possesses industries worth mentioning to-day. Their importance is in local trade as they supply the nearby rural tract with essential commodities. These residential towns are generally administrative head-quarters of districts and sub-divisions and some of them are historical places.

This paper is intended to observe the behaviour pattern of selected residential towns. The following towns of West Bengal have been included in this study—Arambagh in Hooghly, Barasat in 24 Parganās, Suri in Birbhum, Bishnupur in Bankura, Kalna in Burdwan, Murshidabad in Murshidabad, Krishnanagar in Nadia, English Bazaar in Malda, and Ghatal in Midnapur District.

The selection is purposive—9 towns from nine districts. Historical background is available for the selected towns. Primarily, this has been the motive of selection. Most of them were once flourishing towns of great importance either owing to manufactures or as centres of trade and commerce. Since the dusk of the last century or the dawn of the present, they were declining, because of erosion of economic base due to disappearance of industries, substitution of river transportation by the rail, silting of rivers, change in the technique of production of the particular class of industry, decline in demand for manufactured products of these towns owing to changes in consumers' tastes and preferences and due to foreign competition. Disappearance of indigo cultivation also had its logical impact.

The following is a list of industries generally thriving in these towns in the recent past :

- i. Cotton fabric
- ii. Silk industry
- iii. Brass metal
- iv. Bell metal
- v. Ivory carving
- vi. Conch shell
- vii. Indigo

Historical observation

These are abridged reproduction from documents on the economic activities centred round these tracts collected from census reports and gazetteers.

Kalna—Kalna was a place of great importance since the period of Muslim rule. When the river was the main channel for communication and trade, it was one of the principal ports of Burdwan district. Till the early years of the present century steamers used to visit Kalna all the year round. But the river itself silted up and the East Indian and other railways diverted the traffic. Consequently, prosperity and commercial importance of the place declined. The decline of Kalna was steady for a long period. The town was in the epi-centre of the Burdwan Fever of 1872. Besides, the extinction of indigo plantations between 1881 and 1911 robbed it of a substantial density. In the period during 1941-51 it was once more established as a small centre of river trade.

Arambagh—Arambagh is an old place. It was an important road junction in the 19th century before the age of railways. The importance was owing to its situation on the Old Badshahi Road from Burdwan to Midnapur. The town is touched by several important roads including the Old Benares, Old Nagpur and Arambagh-Burdwan Road. It contained two indigo factories. With the extinction of indigo and the diversion of arterial traffic, trade and health declined. At present it is a town distinctly rural in appearance and has no large trade or industry.

Murshidabad—Murshidabad is a place of great historical importance. The principal industries of the town are those fostered by the luxury of the Native Court. Carving in ivory is an old speciality of the place ; and the artificers, though few in number still produce highly finished work. Other manufactures are the embroidery of fancy articles with gold and silver lace, the weaving of silk goods and the making of musical instruments and hukkas. A speciality of the silk weaving of Murshidabad is the *butadar* or pictured saris. The town was famous for the purity of its bell metal wares. The decline of Murshidabad has been obviously due to the decline of the Nawab's court. It constantly declined throughout the 19th century. At the beginning of the present century, Murshidabad was not a centre of important trade or industry. Along with the decline in the manufacturing industries the town became an insignificant place.

Bishnupur—Bishnupur of Bankura district, the ancient capital, was noted for its embroidered silk scarves and shawls in the early years of this century. At that time the town was a centre of tasar silk industry and contained a large weaving population. Bishnupur was also an important trading centre of the district ; the exports being rice, oil seeds, lac, cotton and silk cloth, silk cocoons and imports being English piece goods, salt, tobacco spices, cocoanut and pulses. The Grand Trunk Road from Calcutta to the north-west passed through the town. It was a station on the Midnapur-Jherria branch of Bengal-Nagpur Railway. During this century Bishnupur steadily lost much of its silk, bell-metal, conch-shell and tobacco industries. Thus with the

decline of these industries Bishnupur also lost much of its importance.

Suri—Suri, the district headquarters of Birbhum is a small town. In 1901 it had no special industries and in 1921 it was described as a town of little importance. But it had specific manufacturing industries of its own. Palanquin and furniture were made in the town. At Alunda, a village two miles away from the town, cotton table covers and bed sheets, towels, white table cloths, mosquito nets and other coarse cloths used to be produced. Tusser reeling, tusser weaving, and cotton weaving are also carried on in the large village of Kalipur—Karidha a mile west of Suri. Bafta (mixed tusser and cotton cloth), which is in no way inferior to the bafta of Bhagalpur, was also being produced at Karidha.

In the post independence period the new Mor Project Colony has added to the beauty and importance of the town.

English Bazaar—Being situated in a Mulberry-growing country it was chosen at an early date as the site of the Company's factories. The English, the French and the Dutch had factories in old Malda in the 18th century. In 1770 the English transferred their factory to English Bazaar and since then the town rose to prosperity. It contained a considerable number of weaving population. Silk thread was being exported from this town to Bishnupur, Varanasi etc. It was a considerable distributing centre of manufactured goods and an extensive trade in rice, mangoes and jute was carried on in it.

English Bazaar in reality contained a series of trading villages lining the right bank of the Mahananda for a considerable distance. "In Malda Diaries and consultations (1685-1693) published by the Asiatic Society of Bengal it is said that a person travelling from English Bazaar to Old Malda through Sahapur did not need to carry a light on account of the lights from shops on either side of the road all along the way and could hear a continuous tink of coins being told by tellers in the pay of shroffs".

Ghatal—The chief industries of Ghatal were weaving of cotton and tusser cloths, the manufacture of bell-metal utensils and the earthen pots. In 1909 it was an important trade centre and was connected with Calcutta by a daily service of steamers.

The fabrics made at Ghatal are mostly of a common quality, cheap but durable. The industry is an old one, for the Dutch had a factory in the town; and in the early days of British occupation, a Resident was located here, Ghatal being practically the port for the Arambagh and Ghatal subdivisions. The earthen pots of Ghatal are highly esteemed on account of their being able to stand the heat of the fire without injury, and largely exported to Calcutta. The potter is helped in his work by his women and children.

J. G. Cummings in his Review of the Industrial Position and Prospects in Bengal in 1890 wrote "The manufacture of brass and bell metal utensils, such as cups, plates, and cooling pots is carried on at Ghatal, Kharar, Midnapur,

Chandrakona and Ramjibanpur. At the two places first named the industry is said to be more highly organised than in any other part of the province. The masters there are enterprising and wealthy ; they obtain the material in economically large quantities, e.g., tin from the Straits Settlements, copper from Japan etc. ; they distribute the labour and pay the piece worker ; they have a steady demand from Bara Bazar in Calcutta. Some have more than 100 men in their factories”.

Krishnanagar—Krishnanagar, the residence of the Rajas of Nadia was the seat of a considerable trade. The town is noted for coloured clay figures. The decline in Krishnanagar’s population is mainly due to the ravages of malarial fever and silting up of the river, but it is also due to the decline in its importance as a seat of the local ruling prince. Up till 1898 the town was without the benefit of a railway service. In 1898 a light 2½ feet gauge railway was constructed from Krishnanagar via Santipur to Austola Ghat and finally in 1906 the Ranaghat-Lalgola branch of the Eastern Bengal State Railway, with a station at Krishnanagar was opened, and the town was at last placed in direct railway communication with Calcutta. The Horticultural Research Station at Krishnanagar, which is the only Horticultural Station of its kind in West Bengal was established in the year 1934. Jute Seed Multiplication Farm, Training Centre of Krishnanagar for the Agricultural Extension Staff were established in post independence period.

Barasat—Barasat is an old place. It was considered as one of the chief cotton weaving centres of the 24 Parganas district. In 1909 the town was very unhealthy and the inhabitants were gradually moving to Calcutta and the higher country on the bank of Hooghly.

ROLE OF RESIDENTIAL TOWNS

Asok Mitra discussed in detail the role of small residential towns in his celebrated report of West Bengal Census, 1951. Agriculture as a means of livelihood is devoid of hope and interest with constantly increasing over-crowding. West Bengal shoulders a special responsibility of feeding millions of immigrant labour, surplus agricultural population of other States, with very little scope for expansion of tillage. The industrial West Bengal hardly absorbs any significant portion of surplus of the rural population from the State. Their aspiration to earn a livelihood mainly centred round the residential towns. Taking West Bengal as a whole, proportion of self supporting persons in livelihood class V of 1951 census—production other than cultivation—that is, in manufacturing activities, constantly declined since 1901.

Year	Per cent of self-supporting persons
1901	7.70
1911	8.04
1921	7.29
1931	5.51
1951	6.71

The obvious conclusion leads to some gloomy indications. Large scale industries and small scale industries generally flourished in Calcutta and industrial area, in railway towns and mining towns. The burden of decline would obviously be shared out of proportion by crafts and crafts in residential towns. The rate of decline, if these towns alone were separated, would have been alarming. Shri Mitra has rightly said, "...The career of these semi-rural towns represents the career of our native industries and commerce during the last 80 years". These towns are also primarily administrative headquarters. They are the centre of exchange between manufactured products and rural agricultural surplus. They provide local artisans to meet the local needs of the people. They absorb the local educated people and form the socio-cultural upper strata above the rural community.

In the words of Asok Mitra these residential towns are true index to the fortunes of the people of West Bengal as they claim homogeneity and identity with the general features of the country. They reflect the famines or small depressions or the reverses in the fortunes of rural industry and show how much of the population is driven away to other occupations by an over crowded agriculture.

It may be seen from the table 1 in the appendix that the overall trend of population appears to be a steady decline from 1872 to 1931. Population recovered in 1941 at the level of 1872 and thereafter crossed the previous highest point of 1872 to exceed that level in subsequent two points.

The population of Kalna declined steadily upto 1921 and tried to recover from 1931 onward, but even in 1961 population was below the level of 1872. Murshidabad declined upto 1931 and population did not reach the level of 1872 in 1961. All other towns exceeded the level of 1872 by 1961.

The table 2 shows that in 1951 the total population in agricultural classes, including rentiers, forms a small but significant portion at 15.79 per cent. Transport and commerce support 28 per cent. But miscellaneous services support the overwhelming majority of population at 42 per cent. It may be noted that the secondary sector, that is, production other than cultivation, supports a much smaller portion like that of agriculture at 15 per cent. This confirms the views expressed by Asok Mitra that these towns

no longer serve as the socio-economic and cultural port of their rural hinterland; they are no more the centre of arts and crafts. The miscellaneous services which include white collar employees and units which do not produce physical material goods support the single largest section of population. Perhaps, the demand generated from their earnings is the base on which 'commerce' and 'transport' survive.

Table 3 clearly shows that some other services absorbed the largest portion of workers in 1961 at 38 per cent, trade, commerce and transport maintaining 27 per cent of the workers. The household industry employs 6 per cent and manufacturing sector 14 per cent. It implies an improvement upon 1951. Perhaps, expansion of administrative units and official efforts to encourage industries staged a recovery. Another reason of recovery was in some cases the influx of displaced persons. The recovery was essentially, it appears, of imported brands, whereas the decline was organic in character. The real recovery should be an organic one based on rural hinterland. The trend of urbanisation in India has a sad commentary. Overall proportion of urban population increased from around 10 per cent in 1872 to 18 per cent in 1961 with a gradual concentration in large cities only.

The residential towns lost their significance with the decline of rural economy. They reflect the story of the country life to a great extent. The over-all urbanisation and concentration of urban population have not gone very far to compensate this decline. In other words it is a decline of crafts and arts, of rural skill and rural demand.

APPENDIX

TABLE 1

*Population Trend in Selected Towns**(The second row following each place and total is an index with 1901=100)*

Name of town	Name of district	Year									
		1872	1881	1891	1901	1911	1921	1931	1941	1951	1961
Kalna	Burdwan	27336	10463	9680	8121	8603	8424	9567	12562	17324	22603
		336.61	128.84	119.20	100.00	105.94	103.73	117.80	154.69	213.32	278.33
Arambagh	Hooghly	13409	10507	8326	8281	8048	7857	7461	8992	11460	16551
		161.92	126.88	100.54	100.00	97.19	94.88	90.10	108.59	138.39	199.87
Murshidabad	Murshidabad	24534	20841	18899	15168	12669	10669	9483	11498	10756	16990
		161.75	137.40	124.60	100.00	83.52	70.34	62.52	75.80	70.91	112.01
Suri	Birbhum	9001	7848	7481	8692	9131	8915	10908	15863	18135	22841
		103.55	90.29	86.07	100.00	105.05	102.57	125.49	182.50	208.64	262.78
Ghatal	Midnapur	15492	12638	13942	14525	12064	10770	12400	17226	16125	21062
		106.66	87.01	95.99	100.00	83.06	74.15	85.37	118.60	111.02	145.01
Barasat	24 Parganas	11822	10533	9754	8634	8790	8211	8672	11230	16027	29281
		136.92	121.99	112.97	100.00	101.81	95.10	100.44	130.07	185.63	339.14
Krishnanagar	Nadia	26750	27477	25500	24547	23475	22309	24284	32016	50042	70440
		109.97	111.94	103.88	100.00	95.63	90.88	98.93	130.43	203.86	286.96

English bazaar	12859	12430	13818	13667	14322	14057	16907	23333	30663	45900
Malda	94.09	90.95	101.10	100.00	104.79	102.85	123.71	170.72	224.36	335.85
Bishnupur	17436	18863	18190	19090	20478	19398	19696	24961	23981	30958
Bankura	91.34	98.81	95.29	100.00	107.27	101.61	103.17	130.75	125.62	162.17
Total	158639	131600	125590	120725	117580	110610	119378	157681	194513	276626
Index	131.41	109.01	104.03	100.00	97.39	91.62	98.88	130.61	161.12	229.14

TABLE 2

Population by Livelihood Classes of Selected Towns in 1951
 (the second row after each town and total is an index with total population as 100)

Name of town	Population	I-III	IV	V	VI	VII	VIII
		Cultivators, Cultivating labourers and their dependants	Non-Culti- vating owners of land, agri- cultural rent recei- vers and their depen- dants	Production other than Cultivation	Commerce	Transport	Other services and mis- cellaneous sources
	persons	persons	persons	persons	persons	persons	persons
Kalna	17324 100.00	2285 13.19	347 2.00	2390 13.80	5666 32.71	723 4.17	5913 34.08
Arambagh	11460 100.00	5749 50.15	50 0.44	1211 10.57	1140 9.95	120 1.05	3190 27.84
Murshidabad	10756 100.00	685 6.37	240 2.23	1535 14.27	2285 21.24	333 3.10	5678 52.79
Suri	18135 100.00	2452 13.52	177 0.98	1848 10.19	3127 17.24	913 5.03	9618 53.04

Ghatal	16125 100.00	7651 47.49	96 0.60	1839 11.40	3069 19.03	241 1.49	3223 19.99
Barasat	16027 100.00	2701 16.85	220 1.37	2150 13.41	3252 20.29	938 5.85	6766 42.23
Krishnanagar	50040 100.00	1379 2.76	797 1.59	5757 11.50	13284 26.55	2834 5.66	25991 51.94
English bazaar	30663 100.00	1008 3.29	528 1.72	4797 15.64	8462 27.60	795 2.59	15073 49.16
Bishnupur	23981 100.00	3488 14.54	851 3.55	7029 29.31	5454 22.74	1551 6.47	5608 23.39
Total Index	194511 100.00	27404 14.09	3306 1.70	28556 14.68	45739 23.51	8448 4.34	81060 41.68

TABLE 3

*Distribution of Workers by Livelihood Classes in 1961**(Figures in the second row after each place name is an index with total workers as 100)*

Town	Total population	Total Workers	I	II	III	IV	V	VI	VII	VIII	IX
			Culti- vators	Agricul- tural lab- ourers	Mining, Quarry- ing, Live- stock, Forestry, Fishing, Hunting, Planta- tions†	House- hold Industry	Manu- factur- ing, other than House- hold Indus- try	Cons- truction	Trade and Com- merce	Trans- port, Storage and Commu- nication	Other services
	persons	persons	persons	persons	persons	persons	persons	persons	persons	persons	persons
Kalna	22603	6139 100.00	129 2.10	229 3.73	67 1.09	331 5.39	934 15.21	165 2.69	1448 23.59	510 8.31	2326 37.89
Arambagh	16551	5060 100.00	662 13.08	903 17.85	122 2.41	159 3.14	684 13.52	236 4.66	716 14.15	332 6.56	1246 24.63
Murshidabad	16990	3563 100.00	252 7.07	141 3.96	77 2.16	229 6.43	57 1.60	584 16.39	584 16.39	223 6.26	1416 39.75
Suri	22841	6345 100.00	71 1.12	53 0.84	41 0.65	48 0.76	744 11.73	251 3.96	1115 17.57	440 6.93	3582 56.44

Ghatal	21062	5492 100.00	1297 23.62	810 14.75	36 0.66	216 3.93	498 9.07	81 1.47	1193 21.72	97 1.77	1264 23.01
Barasat	29281	8380 100.00	443 5.29	411 4.90	68 0.81	221 2.64	1766 21.07	292 3.48	1567 18.70	631 7.53	2981 35.58
Krishnanagar	70440	17719 100.00	201 1.13	356 2.01	184 1.04	709 4.00	2354 13.29	1125 6.35	3563 20.11	1672 9.44	7555 42.63
English bazaar	45900	12552 100.00	42 0.33	164 1.31	109 0.87	530 4.22	1745 13.90	1047 8.34	2625 20.91	1227 9.78	5063 40.34
Bishunpur	30958	8956 100.00	380 4.24	177 1.98	99 1.11	2135 23.84	1365 15.24	233 2.60	1359 15.17	431 4.81	2777 31.01
Total	276626	74206	3477	3244	803	4578	10147	4014	14170	5563	28210
Index		100.00	4.69	4.37	1.08	6.17	13.67	5.41	19.10	7.50	38.01

† Including Orchards and Allied activities.

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SUGATA DASGUPTA

Trends of Social Change in Village India

THE treatise on social change is in two parts. The first provides an analysis of a probable theory of social change and the other a brief survey of some changes that have taken place both in the values as well as in structural patterns. Viewed differently, it may well be seen that the paper has four broad divisions. An account of the bench mark position of planned and purposive social change is in the first. This also contains a brief reference to what has been called the pre-bench mark position when preparations for change, much of which became evident only after a lapse of time, were taking place. The second part deals with theory.

What follows then is a description of the changes that have taken place in the ideals and values of the Indian rural community, while the last section describes the structural changes in rural areas. A basic assumption of this paper, which must be clarified at the very outset, is that there are two distinct types of changes. The first is 'change' in general, one that merely happens or occurs and the other is planned social change and takes place as a result of purposive, and organised social action. The paper deals with the latter, 'planned change'; its basic stimuli, organisation and impact.

The years 1871-1961 was a crucial period in the history of the world. It has also been of great importance in the life of this sub-continent which now stands divided in two sovereign States—India and Pakistan. These were the years when far-reaching changes were taking place all the world over. Some of the highlights of this great social upheaval were the maturity of

industrial revolution, the rise of Marxism, the establishment of the first socialist State in Russia and the liberation from foreign yoke of Asia and Africa.

In India this era was of particular significance. It was during this period that India attained a national identity, took to science and modernity laying thereby the foundations of a well developed elite society and achieved political emancipation. Of these ninety, the years 1861-71 provides the pre-bench mark position, and 1871-91 the position for bench mark analysis.

The pre-bench mark years saw preparations for change, while the latter started taking shape only at the bench mark stage. An acquaintance with some of the major shifts and transformations that took place then and between 1871-91 will help us to calculate the incidences of change that took place later. For it was in the pre-bench mark period as one sees it that the seeds of purposive development were first sown. This was also the time when the reins of Indian administration were transferred from a mercantile office to Queen Victoria.

The first few years of her rule had indeed provided the early basis for organisation and integration of life in the country as a whole. Railway lines, telegraph services and an unified administrative structure backed by a new system of judiciary was introduced at this stage. This outer frame of unity had naturally created great psychological impact on man and together with the after effects of the "cultural renaissance", helped the country to find a feel for 'national identity'. For this was the period when western education was forging a new consciousness of rights and responsibilities and modern educational institutions were multiplying. A matter of outstanding importance that took place during these days was the birth of two great leaders of men, Rabindranath Tagore and Mohandas Karamchand Gandhi. They had turned out to be, as is common knowledge today, the two greatest catalysts of purposive social change. It is easy to see therefore that the 'pre' and 'bench mark' positions provided the early beginnings of the change and created initial conditions for large scale transformations to take place later.

The years 1871-91 not unlike the pre-bench mark period also saw great sweeps of ideas developing into specific reconstructional programmes. This was naturally the period when political consciousness was in its embryonic form but showed distinct signs of life. The Indian National Congress was established in 1885 and the stage for petition politics, platform speeches and arm chair politicians were fully set. The direct impact of the renaissance movement, and of western education as well as the new trends of political awakening, one finds all these intermingling during these years. They led to the emergence of a well-knit elite community, and the latter, the new leaders of India, were the first known agents of purposive social change not only in the country but probably in the whole of the continent itself.

The elite group which played an important role in India were, however, deeply conscious from the very beginning of their greater responsibilities that they should not merely function in a groove but own their obligations to the people at large. But since the group was still groping to find its way it was not until the 1890s that they could start reaching out to the rural areas and plan specific programmes of social and economic development. Case histories of organised efforts initiated during this period for development of the villages of the country have now been recorded in historical studies.¹

Two of these were the most important. The first was the experiment in rural reconstruction started by Rabindranath Tagore in Patisar and Selidaha now in East Pakistan and then at Sriniketan. The other was a governmental effort for planned rural change initiated by Maharaja Sayyaji Rao Gaekwad (II) in the princely State of Baroda. One can have no difficulty to assume that there must have been many other similar efforts in the country by lesser known men whose accounts, for want of historical research, are yet to be recorded.

The earlier changes that had taken place and infused new ideas, values and legal structure in the elite society had thus created in turn an irresistible urge for change in a cross section of the Indian intelligentsia. Craving for purposive development of the society they felt convinced of the need for transmitting their ideas and programmes to the people around. What they achieved by their efforts are the social changes that took place later. The pace for intra-community integration of the elite and their efforts to help the larger community in general and the rural society in particular were heightened in the years that followed.

It was also the period when the political movement took important strides ahead and burst forth in a number of directions. Two of these require special note. The first was the secret revolutionary movement in which a section of Indian youth, whom the British described as "terrorists", took part and the other was the Gandhian movement. The latter aimed not only at spread of political consciousness for freedom struggle in rural areas but also introduced programmes of social reconstruction. While the revolutionary activities reached its high peak in 1920s, the Gandhian movement for Swaraj was still to make its headway. An additional development that took place at this time and lent a special fervour to the political struggle was the introduction of socialism, both as an idea as well as a new programme for action. In the bench mark position of the country one can thus see far reaching changes taking place all over the territory.

The after effects of the 'renaissance' were also being crystalised during this period. Secret revolutionary organisations were at their high peaks. Mass movements too had just started taking shape and together with the inspiring ideals of socialism and class struggle were making their headway.

That was the bench mark position by the end of the nineteenth century, that was the India of the day. The whole atmosphere in which the elite community lived at that time was surcharged with great emotional feelings and the urge for change and the zeal for social action were evident.

At a later stage when the political movement assumed a countrywise priority the progress of the cultural renaissance and social reform, the two main features of the pre-bench mark period, were halted for the time being. What took its place however was a new programme of social action. This formation of an elite community and introduction of specific plans of social and economic reconstruction in the rural areas by them were the two most important trends of change that had characterised this era. The latter phenomenon, namely, planning for social change had of course found further impetus after independence. A number of programmes were thus officially taken up at hand by the government of the country after 1952 as well as by the Gandhian movement which after 1948 entered a new phase. These trends of change that gradually became evident in the later years were by and large a continuation of the efforts put forward by the change agents of the bench mark period. With all these facts staring us in the face one finds it yet difficult to measure or even to analyse, in the absence of empirical data, the exact incidences and expanse of change that had characterised the bench mark period. It is easier to analyse its after-effects. But before we enumerate what some of these after-effects were, it would be worthwhile to provide a brief analysis of the new theory of social change.

This is the theory of planned and purposive change and it is the contention of the present commentator that the rationale of this theory could be traced to the bench mark period. The fact that the practices that originated from it has now become all pervasive is to a large extent due to the intensity of its purposeful beginning. The pages that follow describe the new theory of social change viewed in the context of the contemporary time.

(a) *Theory of social changes : elite aspirations and the planning process*

It is easy to preceive especially in the context of the foregoing discussion that India and for that matter most of the developing countries of the world are fast moving into a new age. This is the age of purposive and planned social change. There was a time in history when our societies, especially the older ones like those in India and China, were 'inner' directed and had with great passion clung to the past. Scientists have called such societies, 'tradition directed'. In a number of other jargons used in this connection they are also described as 'stability centric' and 'past oriented'. A great emphasis, in fact the mainstay of all conscious efforts of the leaders of these societies were on maintenance of the status quo, glorification of traditions and

of moving thereby along the beaten track, one that followed the footprints of history.

There has since long been a change in this basic position. Although there can be difference of opinion about the types of change which are taking place in the country today and their implications, there can hardly be, one presumes, two opinions regarding the new sensitivity. The Indian elite be it urban or rural, political, social or technocratic is craving for development and change today. One central prayer that seems to be common to all leaders of the society is this prayer for change, for disturbance of the status quo and for seeking an 'outer direction' to development and growth. A distinctive feature of the articulate members of the society, and the feeling is spreading down below, is then the anxiety to create far reaching transformations in the environmental and social structure of the country in the shortest possible time.

It is not, however, the contention of this paper that the society had in the past, i. e., even before the pre-bench mark period been wholly static and that change is an altogether new phenomenon. For even in the past, despite the stability centricism or tradition direction changes took place. There is probably yet a difference. For while changes used to just 'happen' or 'occur' in the past, the emphasis today is on planned social changes on catalysed development and on a conscious effort to bring these in. The aim of this paper, is not to deal with the whole array of changes that have taken place; our concern on the other hand is with a more limited area, namely, the developments and transformations which are daily taking place as a result of the conscious efforts for planned social change and not any other.

But change spreads through human and social contacts and soon assumes the character of a self propelling endeavour. A move in one point of the social system is thus bound to create its impact on many others. It may, therefore, be quite possible that in an attempt to pinpoint the areas of planned social change the present discourse spans indeed the whole width of the changing milieu or at least some of its basic trends.

(b) *The change agents and the developmental system*

The machinery that initiates the countrywide programme of planned social change today is only too well known. This includes the governments of the country, not only of centre and States but the various tiers of Panchayati Raj institutions and the Planning Commission. A large number of voluntary organisations functioning all over the country, distinguished individuals and leaders too take part in this all consuming programme in some manner or the other. Quite a few key personnel, officials and non-officials as well as social and physical scientists of various descriptions are similarly involved in the process.

Although this provides a catalogue of our major change agents it is necessary to emphasise that a distinctive apparatus which could be called the 'developmental system' has now become evident in India. It has six parts and provide an indispensable feature for planning development in small communities. The system has six divisions. Three of these are the *external catalyst* (may be a government agency such as the C. D. Block or private voluntary agencies or even an individual), *local village institutions*, including the village leaders and the *general clientele*. Three others are the *village people themselves*—the clientele of development, *programmes of development* and the *process* that binds all the five elements together.

In any developmental situation the six legged system would be present and the sum total of relationship of the six, their interaction and interplay would determine the exact character of development. While it is not the purpose here to elaborate this concept,² it is necessary to note that the nature of the end product (that is whether the change that occurs or the developments that take place is village centric, leader centric or institution based or any other) would depend on the motivations and objectives as well as the relative role that each of the elements play.

If these are the acknowledged agencies for planning social change there are a number of others who, even if they may not be conscious of the great role they play, wittingly or otherwise, wield an equal if not a more formidable influence on the process of planned social change than the formal agencies directly involved in it. Two of these, are the political parties and the fourth estate. From a rapid review provided below of some of the significant changes that have of late taken place in the country the key role that the press must have played in their formation if not in reporting would become evident. But before we enumerate at least what some of these changes have been, it may not be out of place to mention the important shifts that have taken place in the process of planning itself.

It is easy to see that since the purpose of planned social change was to secure all round economic recovery and material growth, its early emphasis was on introduction of new technologies and innovations for economic development. The latter was of course to have its impact on social and economic institutions of the country and to create in turn a rapid momentum for further change all round. It was, however, soon realised that the basic factors which account for the stagnation of our economy are not wholly economic or institutional but lie in the area of motives and aspirations. A further shift in the emphasis of planning now becomes obvious, the focus being on transformation of motives, attitudes and aspirations. A change in values and in motivations for individual action thus provides one of the main targets of planning for change.

The strategy for change have itself been in a melting pot. As there has

been a basic shift in the position of elites and leaders, inasmuch as they have now emerged as conscious aspirants and agents of change, there is a similar shift in change targets as well. What is aimed today is thus not only economic change, but an all round transformation. The emphasis is on social development and personal change, as well as on transformation of values and motives of individuals and institutions. Two conclusions, it will not be misleading to say, emerge clear from this foregoing analysis. One of these relates to the thesis of social change in India and has it that the role of individuals are all important in any programme of change. They must change if the society has to change; and it is only when a change is created in the human factor, that institutional transformations take place and economic change, following the tracks of social development, appears. In this individual-institutional complex and in finding the relative importance of social and economic change, what is now evident in India is that all of them go hand in hand and that there could be no question of a priority. But should there be any, the emphasis would obviously be on the role of the individual, and on social change first. It is in the change in position of individual leaders of the society and of the articulated mass who had once worshipped tradition and now crave for instant all pervasive and fundamental change here and now, that a further guarantee for a built-in mechanism for social development can be found. The other conclusion which is not difficult to read in these events is the obvious role that the press must have played consciously or otherwise in creating these urges for change at least in the elites of the urban sector.

Indicated below are some of the important changes that have of late taken place in the various parts of the country. In enumerating these, the transformations and shifts that have taken place in the Indian society, it has not been possible for the reason stated earlier to support my thesis with empirical data. The changes mentioned, however, only indicate certain broad trends and are of a generic nature; but they demonstrate, one hopes, the inter-relationship of motivational and personal factors with other aspects of life and offer an insight in the various ramifications of the changing society.

TRENDS OF CHANGE : POLITICISATION AND AFFLUENCE

Introduction of specific changes, those which become easily evident to perceptive observers and have been noted below date back to the beginning of the 20th century. Intensive developments in this regard did not, however, start before the 1930s and reached the peak during 1950-61.

The changes that are taking place are of two categories. These are in the realm of ideas and values as well as in institutions and social life. Since both are interrelated and changing values and motives also pave the path for

social and material transformation, it may be worthwhile to note some of the more important shifts that have taken place in the values of the contemporary generation. These too are two in manner. If the central theme of the Indian social life was once religion and fate, the dominant values at least of the elite today are politicisation and individual affluence. A craving for political power and preoccupation with one's own economic conditions have now superseded all other considerations of life. This is true not only of the poor and the power hungry but of all sections of the society, irrespective of the position one holds. 'In our time', Einstein had once stated, 'our motto was service—it is success today'. The motive force which makes individuals and groups move and take different positions in life are thus the attainment of personal success in achievement of political power and affluence.

The aims of politicisation include controlling influence on other members of society, achievement of political status and winning of governmental positions. All sections of the society, all people—irrespective of their vocation or social position, be they students, teachers, philosophers or social scientists, a sadhu or a government servant, all would look upon political power as the most cherished goal. More often, however, access to political power also provides instruments for acquisition of wealth and economic status and the two together determine almost always the social status of a person. No other consideration, neither character nor integrity; neither knowledge nor sacrifice can secure the position which political power and money can offer. It is for these two-fold reasons of attainment of political status and economic gains that a caste irrespective of his real social status aspires to remain steady in the list of the 'scheduled and the backward' and would, in spite of one's high ritual, rank, willingly agree to be apparently down-graded. It is for this reason that even endogamous caste groups are prepared to enlarge their areas of endogamy, and strengthen their political and economic roots. It is for this reason that we see in many agitations for food, student unrests and political bandhs—the hands of aspiring politicians more than those of the real champions of the disaffected.

Politicisation does not, however, always mean recourse to party politics or even joining the political fray. Each institution whether it is a university, a panchayat or a cooperative society have well developed focus of power and politics of their own. The most significant change that have come about in values of the elite and even of the articulated mass is thus the readiness to use every vantage position, every national resources or individual opportunity to rise in the politics of the institution and to attain the twin objectives. It is for this reason that the political agents for elections and the extension worker for community development are not looked upon as those who provide alternatives for right political decision-making or choices of programmes for community improvement but as scape-goats or the father Christmas who

must open up limitless opportunities for personal acquisition. The process of politicisation has thus gone deep into the main stream of social life. It has in fact led to a suppression of all moral or ethical values and account for most of the disastrous activities in which a great many responsible people are participating today.

POLITICAL PROCESS : AN INVERTED PYRAMID

One result of politicisation and the projection of this value far and wide is not only the formation of a number of islands of power play but also their decentralisation. The latter, does not only mean creation of Panchayati Raj bodies but something more significant. A large number of people are thus increasingly gaining a greater share in the process of decision making, the fulcrum of power being pushed downwards every day. As an example to this the downward move of the power fulcrum, I had once observed in a similar Seminar held at Varanasi, that if there was one Gandhi who could select his successor to the position of the Prime Ministership of India, it took a combination of State leaders to choose Nehru's successor. It is interesting to note in this connection what happened at the time of the selection of the successor to Lal Bahadur Shastri. A wider group of people, in fact all Chief Ministers and the whole of the parliamentary party had to do the choice—one that was once done by a few on the earlier occasion and by a single person before independence. In a State like West Bengal where a coalition government has come to power the decisions are arrived at in fact not even by the cabinet. A new device called a 'super cabinet', a board of all parties including those who are not in the government is to take all major decisions today. Lal Bahadur Shastri had brought in the innovation in decision making when he sought to consult not only his cabinet but also the opposition parties at regular intervals. Ajoy Mukherji and Annadurai had almost made it a regular practice at least at the earlier stages of their rule to make all public pronouncements of their policies, which was in effect a device in decision making, in largely attended public meetings. It is common knowledge in Madras today that Secretaries come to know of the ministerial decisions often from public meetings and much later from notings on files.

The fact that the centre of decision making is fast being dispersed and indeed shifting downwards can be easily seen. State party chiefs are thus increasingly becoming dependent on their district counterparts and the latter on village leaders, who hold the key to the battle of the ballot. Even in an opposition party the story is no different. I know for certain at least of two nominations for parliamentary constituencies in a party. These were first offered by the national chief of the party to two of his nominees but had to be set at nought later on the insistence of his local counterparts who insisted on having their own choices instead. In most of the States, and especially so

in Maharashtra and Gujarat a real aspirant to political power would thus much rather prefer to be the chairman of a zila parishad than a member of the Assembly.

While the emphasis of power is thus shifting vertically, one must admit that the onus of decision making, at least in a good many areas, is likewise getting distributed among those who function at lower levels. To take an example to the point, a large number of Panchayat chiefs and V. L. Ws. take a greater share in the decision making process that is relevant for determination and execution of developmental programmes today, than ever before. According to Dr. Lohia, the country which was once ruled during the days of the British, by a team of say fifty thousand of decision makers is ruled today by ten times of the number. There are no reliable statistical findings in this regard on which a scientific study may be based. The number of decision makers, it may be yet emphasised is, however, much larger than this estimate and that the number is increasing every day.

RISE OF RURAL ELITE AND THEIR ALIENATION

A logical corollary of this process of decentralisation has been the emergence of the rural elite. A large number of people—a sizeable one in each village—are thus gradually ascending to the position of power and exercising control or political influence on others.

People who play this role usually hail from the economically better off sections of the underprivileged class; but even if they were to come from the economically retarded sections of the underprivileged, as they frequently do, the process of politicisation fast transforms them into a set of 'haves'. Inevitably the new elite need also to think of their personal affluence and since political power makes it easy to monopolise economic gains, whatever little may be forthcoming from the various schemes and programmes that pass through their hands, they gradually grow a vested interest. The result is that the 'new class' gets estranged if not alienated from their rank and file all over the area.³ The position of the local elites who originally hail from the inner circles of village communities then becomes paradoxical; for they have now, in the new situation of alienation, to look for their own support to the outside leaders who function at the district or State level and to whom, so long, they had themselves provided the base. This obviously leads to a very tragic state of affairs inasmuch as the whole group of leaders from State and downwards now hang loose in air without appropriate support from ground.

POLITICAL POWER AND ECONOMIC POWER

An excellent example of this shift of power is presented by the changing position of government to government relations of the state and central

administrative apparatuses. It is interesting to note that the total contribution that the central exchequer makes to a State budget is increasing every day; one would have thought that the central ministers in situation like this would have logically become more powerful. What has happened, however, is just the reverse. The political power of the leaders of a State seem to have increased almost at the same time as their economic viability has been reduced. The power of the State boss is thus no longer only the power of his purse, but more so of the strings with which he holds the line of control up and upper. The changing relations between the various social and political groups, the new values and motivations, do not, however, exercise only a limited influence on the immediate group or community apparently touched by these.

They cast their shadow far and wide and strangely enough determine the main ethos of national politics. For the leaders of the nation, who have also to safeguard their own political positions do, in their efforts to placate the public at large, take note of their values and desires. Most important of these is the desire for affluence. Next only to politicisation the demand is a difficult one to fulfil atleast in our present economic condition. But since affluence or rapid rise in standards of living provide the dominant value, our national policies and international relations all have to take note of these and the leaders have also to make some efforts in this direction. What lies behind the recent negotiations for foreign aid, illusions of a large sized plan, introduction of deficit financing and inflationary tendencies as well as the use for devaluation now becomes clear. Once we understand that the basis of international politics is as much determined by the fundamental motivations of citizens of State, it would be easy to see how changes taking place in one direction throw its impact on many others. This is a vicious circle. Impact of the process of planned social change creates these basic values and they in turn determine the broad frame of national policies, which determine the direction of planning itself.

INTEGRATION AND REORGANISATION

Indicated above are the major changes that have taken place in the values of our generation and also their impact on the social and political life of the country. These are the indirect effects of the programme of change. A few others, the more immediate and direct results of the change movement are mentioned below.

The first is a circle of disorganisation and reintegration of our community structure, a process that takes place at the same point of time. Some of our key institutions are undergoing the impact and this happens due to the nature of planning.

For the *modus operandi* of aid programmes open us new opportunities

for employment to more members of a family. The new system of land tenure similarly entails redistribution of land in the family and even if the redistribution may, more often be, just a formal transaction, this creates a feeling of psychological self determination among the beneficiaries. The rules and procedures of community development often sharpens the process. The fact that loans could be granted only to an individual and not to a family and the feeling that a vote is each individual's, be he a son or she a wife, secret and sacred concern, all help to intensify the sense of self determination and disintegration.

It is interesting to note however that a reciprocal trend of reorganisation or consolidation of different institutions and social relationship is also afoot at the same point of time. Compulsions of development entail this and team work of different sorts creates new combinations and group alignments. Development envisages setting up of new institutions, e.g., schools, cooperatives and panchayats; loans under the new schemes cannot be obtained unless leading neighbours stand as guarantors of each others. Neither could the panchayat elections be won unless new alignments among neighbours take place. Establishment of a Youth Club or a school which necessitates release of government grants similarly requires social consolidation of individual interests. Not that all the combinations are always political or that they toe the party line. Most of these are in fact in a sense political. Based on new social relations of the emerging society, this leads to creation of new institutions, and quite often even to a reorganisation of the existing ones. The wheel of social relations passes through regular progressions of adjustments and readjustments, organisation and disorganisation. The practice of community development in India reflects the strength of this theory and provides the necessary stimuli for *dis* as well as *re* organisation of our time-honoured institutions.

In Western U. P., for example, a recent study reveals that all the members of a joint family, even the former valets of the patriarch had joined hands to set up a cooperative society. The minimum number of membership that a society need procure required this combination and had in fact given a new opportunity for the old relations to subserve and survive. Since the establishment of new institutions make it imperative for new combinations to take place there has of late been a limitless proliferation of social institutions. The latter has many effects. One of these is to help the members of a small rural community to partake of the facilities of development. The others are creation of a pluralistic base of the rural society and opening up of new opportunities for exercise of political power.

ROLE OF COLLECTIVE ACTION

The proliferation also broadens the base of collective action. An indivi-

dual in spite of his dominant role cannot thus be relevant in the new situation; unless one can show the powerful combinations he heads.

The concept, with slight dilution, has however somewhere developed an altogether new image. This is the phenomenon of people's movement, direct action or mass violence which are having their sway all over the country today. The political agitations, be they for linguistic redistribution of states, student grievances or political bandhs, display this power of collective action. Even a cursory review of contemporary history would make it evident that what could have been a powerful lever for social growth, the mass movements and combined actions had these been channelized constructively for the purpose of development, have through a process of extreme politicisation taken a violent turn. It is interesting to review why these mass movements take place and how they succeed at regular intervals. Although the movements embodying collective action, are not a direct product of planned change, they bear an important relation to it.

In spite of the traditions of parliamentary democracy, quite a few of political and national decisions in the past 18 years have for example been taken as a result of these demonstrations. These have produced tangible results more than what the leaders of the opposition could produce through constitutional opposition. Leaving aside what the government have accomplished in the last 18 years if we take stock of what the erstwhile opposition had achieved when they were not in governments it would be clear that most of the success of the critics of the government have been due to the mass action and not the constitutional process. Almost invariably such actions have been violent and explosive, and have of late permeated the entire life of the nation. They make, together with politicisation and affluence, violent social behaviour an equally important goal.

It becomes evident from the foregoing analysis that changes have taken place in the country mainly due to two different stimuli—one of planning and organised efforts and the other of mass movements, collective action and violent mass uprisings. However regrettable and undesirable the course of the latter might have been, the mass movements had also aimed at development. A product of conscious efforts for social change and quite often the result of failure of constitutional or institutional endeavour, they too form a part of the package of techniques which are increasingly used today for bringing in purposive legal or institutional transformations.

The violent mass movement and increasing politicisation of the various limbs of the society would have construed a much greater danger to democracy than what it does today, had not democracy in India exhibited certain inherent strengths of its own. One of this, although it could be interpreted as the basic weakness of our system as well, need special mention. This is the flexibility that the governments show in dealing with opposition demands.

This readiness to yield to pressures and the concessions that the government is prepared to offer have in some way given the mass movement its elixir of life. But it should be noted that this very manner of dealing with uprisings has also helped to limit the intensity of their import and has prevented large scale convulsion.

It is time now that we delineate some of the structural changes that have taken place in the rural society. Brief references to a few of the new institutions that have come up and some structural changes that took place from time to time have of course already been made in the course of foregoing discussion. It has been said for example, in elucidation of the theory of planned social change that a fundamental system has now emerged; one whose functions are to bring in changes of various descriptions. The system may not be analogous to a structure or an institution; there is no doubt however that the changes that have come about in the institutional structure are largely a result of the functioning of this new innovation.

Kinship and religious organisations were the two major institutions that have been from the time immemorial, of the utmost importance in rural India. The late nineteenth and early twentieth century has now brought in an entirely different set of social institutions in the country. Some of these were first introduced as 'formal' catalyst agencies and later developed into informal organisations and later still as social institutions of the community itself. The distinguishing features of the new bodies are that they are secular agencies and their avowed purpose is to introduce developmental programmes.

Two main catalysts who have been mainly instrumental in bringing in these new institutions are the government planning departments and the *Sarva Seva Sangh*.⁴ There is yet a difference in the aims and objectives of the two bodies. For the institutions introduced by the government departments were mostly in the nature of social service agencies whereas the *Sangh* introduced a set of organisations of more fundamental nature. While the specific roles of the *Sangh* and those of the government have become evident only today, the government in the earlier stages had often acted in collaboration with individual social reformers and philanthropists in bringing institutions in the rural areas.

The earliest institutional innovations that came up in the rural areas as a result of the new activity were village schools and administrative units (such as *Union Board* in Bengal) entrusted with the work of collection of revenue and conduct of regulatory functions. Schools have since then become a part of the rural culture and the school teacher a leader of the village community, occupying a pride of place in the social hierarchy next only to the caste leader and priest. Schools which were thus introduced at first as informal catalyst

bodies have now become an integral part of the rural society. Two other agencies which were introduced quite early in the day were cooperatives and associate organisations. Cooperatives were sponsored in the first phase by the indigenous village leaders and then consolidated later by the active support of the C. D. programme. A list of associate organisations such as those which play an important role in the rural community today is bound to be long. These include Youth Clubs, Mahila Mandals, Farmers' Clubs as well as rural libraries and village development societies.

The most important of these institutions, one which has now become universal feature of the rural society, is the village *Panchayat*. There are more than fifty thousand of them in India to-day and each of these, the new institutions have in their turn a number of people (no less than 5-10 for each of them on an average) who by dint of their association with *Panchayats* have emerged as the new leaders of the traditional community. If the statistical significance of numbers, whose weight is ever increasing is formidable it is easy to see that the social impact of these institutions and leaders are also increasing every day. For, the new decision makers in the village community play, as has been mentioned earlier, a crucial role in determining not only the process of social control in their respective communities but in a limited manner for the country as a whole. One reason for which the B. D. O. in the C. D. set up and the *Panchayat* leaders have of late been unequivocally criticised both in the State Assemblies and the National Parliament is according to an opinion due to their increasing importance in determining the basis of selection for the body of national decision makers.

Panchayats have undoubtedly created a significant realignment in the social structure of the rural community and its far reaching impact on the political future of the country is yet to be realised.

If we have described just now the impact of the new institutions introduced by the government, the movement started by the Sarva Seva Sangh have had been of no less importance. Its concern with the rural society is indeed more wide spread and intensive. Although the Sangh formally came into being in 1948, the Gandhian constructive work programmes were introduced as far back as 1930. That was the time when the followers of Gandhi were busy establishing a number of Ashrams in rural areas almost all over the country. These new institutions of external catalyst bodies were in the nature of laboratories manned by full time workers. Quite often located in the interior of the countryside, they established intimate touch with their immediate surroundings and also functioned as the soldiers of the independence movement. Two in one, they combined in themselves the roles of social reformers and political workers, their purpose being to bring in change both in the realm of ideas as well as in the vocational pattern of communities where they were located.

The impact of these ashram-institutions were however limited. For the new institutions had more often functioned as self contained units. As political catalysts, the workers learnt in these ashrams lessons in self reliance, lived a life of austerity and could among other things emerge as 'declassed', and 'decasted' individuals. The ashrams were model units of rural life, supposed to exhibit in laboratory conditions how villages could be improved. The contact that the ashram leaders established with the villages from this position of comparative isolation was therefore of a limited nature.⁵ They however, always increased manifold just on the eve of a movement. While impact of these institutions and the impetus they offered to the independence struggle cannot be over-emphasised, it is evident that the institutions did not become a part of the rural social structure.

It was only after the death of Gandhi that the constructive workers in the country set up a central platform and undertook a programme of intensive *Grām Nirmān* and *Grām Krānti* work and thus started on a new phase. The acquaintance with the village now was logically of a different dimension, the purpose being reconstruction of the village community itself, the perspective was inner directed.

In 1954, the Sangh carried this call for *krānti* further and undertook the programme of *Bhoodān*. The idea was to demand 1/6th of land from each of those who had it in surplus for redistribution among the landless. It is easy to see that such a movement was bound to lead as it did, to a considerable realignment of social forces and some redistribution of land.

A more fundamental structural innovation was however introduced in 1958 when *Bhoodān* developed into what has now come to be known as a movement for *Grāmdān*. *Grāmdān* seeks to introduce an entirely different institutional innovation, much different from anything that the village community has known before. For, a village to be a *Grāmdāni* (*Grāmaya Dāna* and not *Grāmasya Dāna*—gift for the village and not 'gift of the village') its residents have to fulfil a four-fold criterion. The first is that a majority of the villagers—all its people in general and actual owners of land in particular should agree and resolve that there will be no private ownership of land any further in their village. The three other requirements are voluntary transfer of title deeds to the village assembly, organisation of a community chest for village welfare work and redistribution of certain parts of surplus possession among the landless of the village ensuring thereby that all people in the area would now own atleast some land.

Grāmdān, although it is achieved by informal methods of persuasion and love, requires that the residents of the area, who wish to opt for it, should on the basis of a legal instrument transfer their titles to land in favour of the village, community itself, i.e., to a new legal entity called the *grāmsabha*—a council, in fact, of all village adults. *Grāmdān* does not however deprive the

land owner or his successor of the right to inheritance. All that a transfer of title deed in favour of the assembly means is to ensure that no land owner could sell, mortgage, lease or barter any land outside the village without the permission of the *grāmsabha*.

The other requirement is that the land owning population of the village will have to agree to surrender 1/20th of their holdings to the *Grāmsabha* for redistribution among the landless. The community chest known as *grām kosh* is an indispensable feature of all *grāmdāni* villages and this is set up when the villagers agree to donate 1/40th of their annual produce or one day's wage to the fund. The chest then becomes the minimum capital to be used for the purposes of village development.

Many see in the *grāmdān* movement an active application of the principles of non-violence for bringing in far-reaching structural changes in the rural community. A major institutional innovation, *grāmdān* aims to transform the whole community into a new kinship group. The fact that the functions of the group are to be secularisation of the village community and its development adds a new dimension to the movement. The specific changes one insists upon as a pre-requisite to *grāmdān* are—1) reduction of disparities in the property ownership; 2) abolition of the category called landless; and 3) transformation of the hierarchical alignments in the caste and class ranks. In terms of quantitative impact, very few of us know that the *grāmdān* movement has achieved already a staggering proportion—50,000 *grāmdāns*. That is, 1/10th of the village India, have turned themselves into *grāmdāni* villages.

The *Panchayats*, cooperatives and *grāmdāni grāmsabhas* present the new landmarks of institutional innovation. They provide as their sponsors claim, new political tools and economic resources to the village community and help them to reassert in a meaningful social order. There are others who however feel that the structural changes so-called are still a misnomer and have failed to make any appreciable dent in the life of the average villager.

It is difficult to make a casual comment about either of the observations, mainly for lack of empirical data and also for want of time and space. My purpose in writing this article is only to focus the attention of empirical social scientists to some of the trends of change that are taking place in the rural community. Are these mere bubbles in the sea of time and will disappear in due course, or do they represent something really fundamental and revolutionary? No prophet can answer this question; but a scientist may. It is time, therefore, that social scientists of the country had turned their attention to this new social reality of the day.

NOTES AND REFERENCES

1. Sugata Das Gupta (ed.), *History of Rural Development in Modern India*, 1967.
2. For its elaboration vide my book *Social Work and Social Change*, Porter Sergeants, Boston, U.S.A.
3. This alienation of elite from the mass culture, not only a rural phenomenon, is one of the significant tragedies of modern India. The efforts made in the bench mark period to make the elite 'outer directed' did not fructify, in fact worked in the reverse order in the years that followed.
4. Sarva Seva Sangh established in 1948 is the central platform of Gandhian workers.
5. Vide article "My Life's Journey", by Shri Anna Saheb Sahasra Budhe, submitted to the Seminar on 'Gandhian Constructive work' held at the Gandhian Institute of Studies.

BARUN DE

*Popularisation of Public Utility Services
in Bengal : Brajendranath De, I. C. S.
in Hughly*

IN this paper, I have tried to bring out some details about a theme in Indian social history, about which very little research has been done since the post-independence awakening of interest about social trends in modern India. This is the subject of the social role of the members of the I.C.S., who composed the new ruling class of the oligarchical administration, which governed India from the time when it was brought together by British rule till the advent of independence. These people were, in the nineteenth century certainly, practically the leaders of social life as well as arbiters of all revenue, public works and minor criminal affairs in the districts of India. They have been commemorated as "Guardians" of British Rule in India by Woodruff,¹ and O'Malley has chronicled their many-sided social activities.² But all historians of the I.C.S. ranging from the traditionalists Sir Edward Blunt and L. S. S. O'Malley to the more modern-minded Philip Woodruff, have used data on the social activities and social origins basically of the British members of the I.C.S. This has been done at the cost of ignoring the Indians, only a few no doubt in the 19th century, but increasingly more in the 20th century, who also passed the very stiff Open Competitive Examination in London and came out with their colleagues as full-fledged members of the I.C.S., often sharing the same way of thought and utilising the same methods.

A study of the activities of these Indians shed a rather oblique light on the social roots of the new indigenous bureaucracy and also of the base of one type of Indian nationalism in the aspirations of this bureaucracy.

A percipient student of current affairs in India, George Rosen has recently written that—

“...the main contribution of the British to the government of an independent India was not a constitution; rather it was the handing over of a trained and very able bureaucracy and a set of policies. Under the British, this bureaucracy was largely independent in purely administrative matters of internal Indian group conflicts and politics and thus it remained relatively non-political. Two names still heard in India to describe the I. C. S. are ‘the steel frame’ and ‘the heaven born’. All imply its incorruptibility, its freedom from politics and regional or communal interests and its efficiency... These men were not specialists, they were specifically chosen as generalists, in the British tradition. Many of the members were originally trained as classicists, philosophers and mathematicians, as well as in some more specialised areas... The Indians chosen would obviously be western educated, either in Great Britain or India; after selection they received additional training at Oxford or Cambridge. They thus were probably from economically upper-class families of high caste, but as a group they were probably among the freest in India from traditional caste and community limitations... The I. C. S. was an administrative elite: it came from a similar Indian social base, it was responsible to an outside government; it was trained to a peak in the function of decision-making; its members working closely together and knowing each other well, constituted almost a new group of Brahmins”.³

This view is based on the liberal values of the Nehru era, and on recent thinking about the I.C.S. as it has developed into a common peer-group of Anglicised Indians. However, Rosen’s premises are unhistorical. The origins of the introduction of Indians into a superior cadre were fraught with results which were different from what Rosen’s view, based only on hindsight, would lead us to believe. If the I.C.S. was to be a training ground for political and social modernisation of the Indian districts from above, the experiences undergone by Indian pioneers in the system were far from the celestial equipoise which may have been gained by the members of the I.C.S. who are Rosen’s contemporaries today.

The reason for this is that in the nineteenth century when only a few Indians could expend the savings of their families and stand the rigours of an alien culture to pass an English competitive examination, they were still not admitted into the *herrenvolk* of the British ranks of the I.C.S. They were considered trainees in the districts, where since the assumption of Diwani by the Company in 1765, only Britons had been considered to be delegated rulers. I have written, elsewhere, of how an English “Guardian” like John Beames [when he was Commissioner of Burdwan Division (in Bengal) stationed at Chinsurah in Hughly District] did not consider one type of Indian members of the I.C.S. at the time of the Ilbert Bill agitation in 1882 to be sufficiently capable of being trained, or able, or capable of remaining either non-political, or friendly to the interests of British enterprise based on British rule.⁴ Many

people in the I.C.S. accused the Bengali civil servants of regional sub-imperialism. And although the Indians, themselves in the I.C.S., sincerely believed in their own leadership as an elite, conditions within their service were such that they did not have the power to implement decisions which they felt were desirable in the interests of the localities they administered, because of higher state necessities. Lacking this power to implement decisions or forced to struggle for years before they could do so—and the transferability of their tenures in individual districts did not give them continuity of interests, any more than the archetypal short-tenure Mughal *jāgīrdārs* depicted by John Hawkins⁵—they sometimes became frustrated, and in the case of men of real brilliance like Romesh Chunder Dutt sought an outlet for their administrative frustration on a common platform with lawyers, merchants, professional people and sometimes landlords, in the Indian National Congress, founded in 1885.

The man who remained loyal to civil service traditions founded on the utilitarian, British democratic outlook often did not seek this extreme path. But a study of a segment of the administrative measures of one such man will demonstrate the tensions and social conflicts within which he worked. The segment chosen is his tenure in three periods—two in the 1880s and one from 1905 to 1910, with periods of rising nationalism—of one district in Bengal, Hughly, whose headquarters, Chinsurah is about 29 miles from Calcutta and was then the base of a totally separate, rural region. Such segmentation, of the problem may present a biased and one-sided picture of tension and conflict, but it is my belief that my own interpretation, based on his own autobiography, on papers of the Government of Bengal, and on contemporary accounts of the region, as well as on data gathered from a contemporary local newspaper will serve as a case study, which can be used for generalisation by further research on similar people. Another element of one-sidedness may be presumed to lie in the fact that I claim, as a student of history, to write objectively about my own grandfather for whose principles and attainments I naturally have enormous respect. However, I have tried to keep subjective biases to a minimum by quoting only verifiable facts from the “Reminiscences” (which is the title he gave to his autobiography) analysing his opinions, and weaving both together with the other sources mentioned above.

Brajendranath De was born in December, 1852 in 31, Gobinda Bose Lane in Bhowanipur in his ancestral home near Kalighat in Calcutta. He identified himself as a member of a Kayastha family, belonging to “the middle-class section, or as they are commonly called *bhadralok* people”.⁶ He was educated in the Colootola Branch School which is now the Hare School, where his maternal relative, the great temperance reformer and pioneer of primary education, Peary Charan Sircar was a teacher, and after his father’s transfer (the latter had been a student of Hindu College⁷) to a ministerial job under the patronage of the post-Mutiny Raja of Shankarpur, Dakshinaranjan Mukherjee

(of Young Bengal fame) in Lucknow, at the Canning College, from where Brajendranath passed out as the first M.A., and second graduate of Calcutta University from Awadh. He was the eighth Indian to pass the Open Competitive Examination for the I.C.S. in 1873, and in 1875 he was posted to Bihar. After creditable service in several districts of western and north Bihar, De was transferred to Lower Bengal, to Raniganj in 1881 and to Hughly in 1882. He was a Sanskrit scholar (being one of the only two Indians who have ever received the Boden Sanskrit Scholarship of Oxford University, 1874-5) and also a Persian scholar. In his retirement, he edited the Persian text and prepared the English translation, for the Bibliotheca Indica series of the Royal Asiatic Society of Bengal, of the *Tabaquat-i-Akbari* of Bakshi Nizamuddin Ahmad, one of the major sources of medieval Indian history. After his retirement from the I.C.S., in 1910 he also served as a member of several advisory committees of the new Calcutta Improvement Trust, and as a Director of the Equitable Insurance Co., Ltd., established by his eldest son-in law, the late Dr. Sasi Bhusan Mitra; and he revised the edition of the English-Bengali dictionary published by S. K. Lahiri and Co. This welding in interest in urban planning, economic enterprise and textual scholarship is clearly marked throughout his life. He died in October, 1932.

He was the first Indian member of the Civil Service of India to be posted to Hughly.⁸ He served from 1882 to 1887 as the Joint Magistrate and Deputy Collector, then was transferred to Faridpur on two occasions on unconfirmed promotion as Magistrate, returning on both times to Hughly in his old post, in 1888 and 1889. From Hughly he went to Khulna, confirmed as Magistrate and Collector, then to Balasore, Bankura and Maldah, and returned to Hughly in 1905 as the second Indian Magistrate and acted as Commissioner of Burdwan in addition to his duties (for a few months in 1905). He acted as Commissioner, once again in 1909, when the previous Commissioner, D. J. Macpherson, I.C.S., was carrying out an enquiry on Midnapore political unrest, and finally retired as Magistrate of Hughly in 1910.

In his old age, he dictated from memory, his *Reminiscences of an Indian Member of the Indian Civil Service*, in which he described conditions in the towns in which he lived. These *Reminiscences* are valuable for supplying information on public affairs in Hughly District which have not been mentioned yet in the books and records on Hughly.⁹

AFFAIRS OF THE HUGHLY IMAMBARAH

In 1882 the Deputy Collector had certain *ex officio* duties. Along with the Collector, he was one of the two local agents of the Hughly Imambarah Trust, which had been created by Government out of the Estate of Haji Muhammad Muhsin (1732-1812).¹⁰ De described the details of the layout of the Imambarah—beginning from the clocktower, the western portal, a Unani dispensary,

Turkish baths, quarters for Indian and Persian pilgrims to the Shiah Shrine on the river, classes for Arabic and Persian, a prayer hall for reciting Shiah marsias (elegies) and sermons, store-rooms for the great annual Muharram procession, and the offices and personal quarters of the Mutawalli (administrator of the Wakf).¹¹ The money for charitable purposes and the maintenance came from "the Syadpur Zamindaries situated in Khulna and Jessore. The Collector of Khulna supervised the management of the Zamindaries, and remitted Rs. 5000/- each month to the local agents" who managed all secular affairs of the Trust.^{11a} The will of Haji Muhammad Muhsin had divided the income "into nine *Sahams* or parts, ... four ... for pious purposes, three for charitable and educational works, and two ... allotted to the two Mutawallis as their salary".¹² At the time, only one Mutawalli was appointed, the incumbent being Maulvi Saiyad Ashrafuddin Ahmad, who had been appointed by Government in 1875,¹³ and later received the titles of Nawabzada and Khan Bahadur; the other 1/9th was accumulated in a fund. 4/9ths were given to the Mutawalli for religious administration, while out of the 1/3 part operated by the local agents "sums were paid to the Persian and Arabic departments of the Hughly College, ... to the Hughly Imambarah Hospital, and stipends were also paid to a certain number of indigent Muhammadan students, in the various districts of Bengal". The annual surplus was divided into nine parts and redistributed according to the monthly payment system.¹⁴ Thus the Mutawalli was dependent on the authority of the Government Agents, and the entire Imambarah Trust was subject to the initiating power of the Magistrate and Joint Magistrate. The Government had also appointed (since the 1st April, 1876¹⁵) a Committee of Muslim gentlemen, who supervised the religious administration of the Mutawalli. In 1882, it was "an ornamental body", but fears that religious expenditure might soon exceed the 1/3 share of income, led to Government creating a third type of Committee of which De as Joint Magistrate was appointed Chairman, the noted barrister, who hailed from Hughly, Saiyad Amir Ali (later Sir Saiyad Amir Ali, P.C.) member, and the Mutawalli, member—Honorary Secretary. This Committee was to inquire into causes of the increase of expenditure, and means of retrenchment. This was yet another means of British government control and support for the Muslim *ulamā* and religious trusts. This joint committee suggested changes in items of expenditure, but according to De "the report like most reports of other more distinguished Committees was quietly pigeon-holed".¹⁶

Even so, it is possible to mark the way in which the I.C.S cadre in the districts were able to exercise financial control of a public utility in a mofussil town.

Between 1905 and 1910, when De was the chief local agent, there was a dispute about leadership between the religious affairs committee and the Mutawalli, who had come to odds with the *ashraf* (the equivalent category of

bhadralok or gentlemen in Bengali Muslim society). The latter raked up the fact that the Mutawalli had been born a Sunni but “become a Shia just before he was appointed to the office”; and should, therefore, they now claimed, be removed from it. After representations to Government, they “refused to pass the bills of the religious section, which required their counter-signature. As the establishment could not remain unpaid indefinitely, (De) passed some of the bills at some pecuniary risk to myself”.¹⁷ His point of view was that the Muslim gentry were unreasonable in contesting in tenure on grounds which had become prescriptive for over a quarter of a century.

Local administrative expediency was, however, qualified on political grounds, by the highest authorities in Government. “The Mutawalli apparently brought some kind of influence to bear on the Government, and Sir Andrew Fraser . . . the Lt.-Governor . . . passed an order without consulting the local officers that the Mutawalli’s son, a young man of little education and experience should succeed him”. The Committee continued to block the work of religious administration, and Saiyad Ashrafuddin Ahmad remained in the Imambarah and guided his son, the young Mutawalli.¹⁸

Government patronage, however, fluctuated from Amurath to Amurath. Sir Edward Baker succeeded Fraser in 1908, and visiting Chinsurah on inspection, met “all the principal local officers” at dinner in the Commissioner’s house; after that “some of the principal Indian gentlemen” were asked to meet him at a reception by the Commissioner in the same house. Saiyad Ashrafuddin Ahmad and his son, who were among the latter social category, took advantage of having previously been asked to dinner by some British officers, to enter the dining room, after the ladies had left. The Lt.-Governor was incensed at the social gaffe and rebuked the Saiyad, in the presence of the Indian gentlemen at the reception, “that his son should not have been appointed and that he and his son should know that the appointment would cease at once”. The local officers were asked to report on the appointment, and they represented that the responsibility for it was entirely that of Sir Andrew Fraser. The dispute dragged on, and finally after an appeal to the civil courts, it was held that both the Mutawalli and his son had been properly appointed—De giving his opinion (which was contested by the Commissioner of the time as well as the Muslim Committee but upheld by Government) that Saiyad Ashrafuddin was consequently entitled to a pension¹⁹.

De’s attitude in Imambarah affairs was that of a trained Civil Servant. Whereas his personal view was that Baker should not have upbraided the old Mutawalli “before so many people”,²⁰ his official stand was that “of course after he had done so, there was nothing further to be said or done”. In all controversy, he was strictly obedient to the maintenance of the hierarchy of administrative action, as well as to conventions of prescriptive tradition. He was also clearly aware of the fine niceties of the degrees of intermixing between

local officers and gentry which regulated the personal as well as official lives of the rulers of all districts in late nineteenth century India. Their roles in the social life of the mofussil towns were marked by these degrees of rank. They did not try to break out of this new hierarchy; and consequently commanded popular respect, but not democratic support.

FORMATION OF AN INDIAN CLUB AT HUGHLY

In this context, we may note that De had been told when he first came to Hughly by his Commissioner, the redoubtable John Beames, an inveterate patroniser of Indians, all of whom—and particularly those of the enlightened *bhadralok*, Anglicised class—he considered his inferiors,²¹ that since De's wife was still in *parda*, he would not be eligible for the Chinsurah Club. Consequently the I.C.S. Joint Magistrate was not allowed to mix socially with the European residents, except on official occasions. Therefore De “established a club for Indian Officers and some other Indian gentlemen, which was located in a house which we hired and where there was a billiard table. This club was, I believe, amalgamated with the Hughly Public Library, and after various vicissitudes finally became the Duke Club”.²² Thus a leading club in present-day Hughly derives its origin from social conflict, a conflict based on inequality of racial customs, even within the bureaucratic elite itself, between rulers and ruled; this conflict was brought into the open by the search of some of the more educated Indians for dignity and equality of status. This club was originally formed for social solidarity among Indian gentry, not for social rapprochement between the rulers and the ruled.

THE HUGHLY-CHINSURAH MUNICIPALITY AND THE PLAN FOR THE WATERWORKS

The Joint Magistrate of Hughly was, in 1882, also *ex officio* Chairman of the District Board. Here he established friendly contacts with the Mukherjee family of Uttarpara, since Babu Joy Kisen Mukherjee, the highly respected head of the family was a member of the Board.²³ The Mukherjees were powerful zamindars in the southern part of Hughly District. Other members of the local gentry received him with the honour that the *bhadralok sreni* always gave in any district to the first Indian member of the I.C.S. who was appointed to it. De criticised the official views of the provincial authorities regarding the Ilbert Bill controversy; these were the days of the origins of Local Self-Government, and of the formation of the Indian National Congress.²⁴ He was supported in the Municipality of Hughly-Chinsurah, in which we find him as a Commissioner in 1884,²⁵ by the Mitra family of Hughly, the leading members of which were the Government pleader in the Tarakeswar Mohunt case (of Elokeshi), Eshan Chandra Mitra and his brother, also a Government pleader, Mahendra Chandra Mitra; both were zamindars.²⁶ De was on personally friendly terms with the

Mitra family also. This must have been one reason why, “when an Act was introduced, by which a number of mofussil Municipalities other than that of Calcutta were empowered to elect their own Chairman, I was the only official, who was elected as Chairman anywhere”.²⁷ Another reason must have been his capacity to communicate the idea of Local Self-Government to the common people in the villages, to which the newswriters of the *Hindoo Patriot* consistently bear witness in this period.²⁸

S. C. Dey writes that “both” as Joint Magistrate and as Chairman (from 1885 to 1887) “he won popularity by the able discharge of his duties. While he occupied the Municipal chair, the road which runs past the Hooghly Branch Line of the East Indian Railway... from the river side... up to the Pankhatuli road was constructed and very properly bears his honoured name”.

At this time, the major municipal problem in the region was sanitation and its practical coincident, the supply of filtered drinking water, which was already considered to be the best preventive for cholera. In March, 1883, people in an unnamed locality telegraphed to the Magistrate of Hughly that after deaths from cholera in a coolie depot, “the men in charge... including a native doctor contrived to fling into a neighbouring jungle the dead and dying”. A gentleman found some people wrapped in blankets, still living among the dead bodies, some of which were mangled by jackals and vultures. “Some of the people telegraphed to the Magistrate, who deputed (De) to enquire” and “it was from him that some of the particulars were gathered” by the newswriter of the *Hindoo Patriot*.²⁹ In 1887, the Municipal area itself was choked by jungle and filth; the old Dutch drains instead of discharging in waste land west of the town, turned on themselves and emptied in the Bhagirathi (Ganges) which flowed to the east. A later Civil Surgeon, Lt.-Col. Crawford, wrote in 1901, that Ross, the discoverer of malaria, was right in first proposing the contention that, “in any case the condition (of the *bastis* of the labouring poor) is not nearly so insanitary as that of the crowded blocks of *pukka* two storied houses, such as Chaumatha and Gutia Bazar. It is the mansions of the rich, not the huts of the poor, which form the chief insanitary evil of an Indian City.³⁰ Whereas the middle classes could afford to store water in *jalas* (pitchers) in their own houses, if they lived near the sacred river, or dig tanks and wells in their homes,³¹ the European residents were satisfied to pay a water-carrier to bring *gharas* of filtered water from the limited supply prepared in the town Jail.³² “A few native gentlemen also obtain their drinking water from the Jail”.³³

The difficulties of organising civic water supply were enhanced by this segmentation of different social groups³⁴ and De notes that whereas “in a few other Municipalities (good drinking water) had been supplied by the generosity of a few wealthy zamindars or in other ways, in Hughly-Chinsurah we could not find any means of supplying it”.³⁵ He, himself, used the building of the Jubilee Railway Bridge, and of supply of filtered water for the railway workers

to show the project to some of his fellow Municipal Commissioners.³⁶ At De's request, the Chief Engineer of the bridge project prepared a Rs. 75000/- plan for a civic waterworks, which was forwarded to Government for sanction. Government, however, would not accept a privately prepared estimate, and in 1884 deputed an Engineer to go over the whole ground again.³⁷ This was Mr. Campbell, under whom says De, "the work progressed very slowly and the Engineer died before he could prepare a complete project. After this we were sent from pillar to post . . . as to what Engineer should take charge of the papers and . . . complete the work . . . The different Engineers to whom we applied all refused to have anything to do with it". When a fresh man was finally appointed, i.e., the Executive Engineer of the Burdwan Division, he submitted a preliminary estimate of Rs. 1,50,000/-, which was dropped as the Municipality could not hope to raise these funds.³⁸ At this time, Maharaja Durga Charan Law of the famous merchant and zamindar family of Calcutta, whose ancestors had lived in Hughly, promised to contribute Rs. 10,000/- if the plan came to fruition,³⁹ but of course this was infructuous.

It is obvious that the Commissioners were unwilling to pay for their civic amenities and should have levied a cess on householders—always an unpopular idea—to do this. It may, however, be argued that a costly plan which the Commissioners would not accept, was worse than the limited plan which the I.C.S. Municipal Commissioner of the Municipality was able to make the Commissioners agree to.

By 1905, the water supply situation had deteriorated. Even a Commissioner, Mr. Bernard, his wife and her sister, and the Superintendent of Police, Mr. Bhaumik fell victim to cholera. The people who lived near the sacred river continued to take their drinking water from it and those inland from contaminated tanks and wells; those who bought *gharas* from the Jail, felt the cost of paying for a man to transport the water.⁴⁰ There were two protected tanks for drinking water, one in Hughly, and one in Chinsurah⁴¹ (in front of the Collector's Offices⁴²) but De did "not think that even they were sufficiently guarded".⁴³

After De's Chairmanship of the Municipality (1885-87), it passed fully under the control of the non-official elected Commissioners. He was succeeded from 1887 to 1899 by his friend, Rai Bahadur Eshan Chandra Mitra, Government pleader, *zamīndār* and head of the powerful Mitra family of Hughly who had started the Hughly Public Library (with which De's club had merged) and had initiated the building of the Victoria Town Hall, and other public institutions.⁴⁴ From 1899 to 1903, the Chairman was held by Eshan Mitra's younger brother, who had been a supporter of De on the 1883 Waterworks plan, and was to be his lifelong friend, Rai Bahadur Mahendra Chandra Mitra.⁴⁵ From 1903 to 1906, the Chairman was a Government pleader, Bishnupada Chatterjee, who later (in 1909) unsuccessfully contested—more or less on factional grounds—

the Chairmanship with another member of the Mitra family, Eshan Mitra's son, Bepinvihari Mitra, and was then opposed by the local newspaper, the *Chinsurah Bartabaha* which supported the Mitras, on the ground that Chatterjee possessed no property in the town and had therefore irresponsibly raised some of the Municipal rates during his own Chairmanship.⁴⁶ In 1906, Babu Bepin Mitra became Chairman, and in 1910 (the year of De's retirement) he gave way to Rai Bahadur Mahendra Mitra (who gained the title of C. I. E.) and remained Chairman till 1926.⁴⁷ The control of the Municipality by the Mitra family of Hughly and their friendship with De, is a crucial factor in the nature of Municipal work in Hughly. De used his prestige and social position among the Indian community to guide the revival of waterworks plans during Bepinvihari Mitra's tenure of office.

On the 19th June, 1907, a meeting was convened in his office, where all Chairmen of Municipalities on the west bank of the River, from Bansberia to Uttarpara, were present. A proposal was made to raise Rs. 11 lakhs for a joint waterworks to service all these towns as a common public utility. This progressive proposal was opposed by the sectionalism of Serampur and the bureaucracy of the British sanitary authorities; the first being represented by Rai Bahadur Kisori Lal Goswami of Serampur who suggested that "no one Municipality could raise Rs. 11 lakhs. Consequently if the Government allocated (funds for) a part of the project from the jute mill tax, then the rest (of the finance) could be taken from the Municipalities by subscription"; the second line of opposition being taken by Mr. Silk, then the Sanitary Commissioner, who proposed that water from Bally (which would cost Rs. 6 lakhs alone) could be taken from the existing Howrah Waterworks;⁴⁸ K. L. Goswami also said that water for Hughly-Chinsuarh alone would not cost more than Rs. 600/- or Rs. 700/-. The entire proceedings were dampened by Mr. Silk's *caveat* that Government would not pay any money out of the jute mill tax, which was being levied at the time.⁴⁹

When Sir Andrew Fraser, the Lieutenant-Governor of Bengal came in his steam-launch, the *Rhotas* on a tour of inspection to Hughly, in the fourth week of July, 1907,⁵⁰ "an address was presented to him, with which" De, the District Magistrate "had to do a great deal in drawing up". It was proposed that "the health and sanitation of Calcutta could never be anything like perfect until and unless measures were taken to improve the health and sanitation of the riparian towns with which the metropolis was so intimately connected": consequently, since the formation of a Calcutta Improvement Trust and the levy of "a duty on jute imported into Calcutta", was under discussion, a moiety of the duty should be allocated for expenditure on waterworks for the riverine towns, whose predominant industry was jute manufacture. This was an admixture of the Hughly plan for an integrated waterworks scheme with K. L. Goswami's idea of tapping the new jute mill duty. But Fraser's response

was what Silk had predicted—that the jute duty was indeed earmarked for the Calcutta Improvement Trust but the purpose of the C.I.T. was to improve Calcutta, and the jute duty could not be spend for utilities outside Calcutta Municipality.⁵¹

De's position and that of Hughly-Chinsurah Municipality was more progressive and less parochial than that of the superior British imperial authorities. Had it been accepted, the periurban belt north-west of Calcutta would have profited in terms of sanitation. This might have foreshadowed by at least half a century the modern concept of the metropolitan planning of an industrial region—a concept which was not yet implemented even in Calcutta itself.

Fraser, however, privately assured De⁵² that if the latter would undertake to raise the balance of funds, he would create a Government grant of a lakh of rupees for waterworks for Hughly-Chinsurah. He later went to Serampur where De was also present, as District Magistrate and promised a grant of Rs. 40,000 for a separate waterworks there.⁵³ De then headed a deputation of Hughly Municipal Commissioners to visit the Law Babus (i.e., *zamīndārs* and merchants of the Laha family) in their house in Cornwallis Street in Calcutta, and pointed out to the heads of the family, Raja Kristadas Law and the later Raja Hrishikesh Law that in 1883, Maharaja Durga Charan Law had promised a donation of Rs. 10,000/- in view of the fact that the original home of this Subarnabanik family had originally been in Hughly. They "at once promised to make the munificent contribution of Sixty Thousand rupees", and on subsequent representation promised to pay Rs. 80,000/-.⁵⁴ It does not seem that all Bengali merchants and landlords were close-fisted about public charities. Local bodies and munificent and public-spirited men also promised other contributions, and preparations were begun to draw up a project report for the waterworks, which now exists.

The completion of the project was, however, still beset by obstacles raised by municipal sectionalism and Government bureaucracy. Many of the local residents in the Municipality itself, especially the ones who had close access to the river, said that Ganges water could hardly suffer from material impurity, objected to paying a water rate for the new civic amenity—a use of religious rationalisation for the protection of their own savings. One gentleman referred to the large number of *jalas* or pitchers in which he would allow even the monsoon river water to settle and thus deposit its mud at the base. He had to be persuaded that many poorer people could not afford to accumulate so many *jalas* in their homes. "Public meetings had to be held to guide and instruct public opinion and the opposition gradually but slowly died down".⁵⁵

Then, the Secretariat, in Calcutta continually blocked the payment of grants which had been promised. The official announcement of Fraser's offers were made known in the local vernacular paper in the following way "The Amrita Bazar Patrika⁵⁶ reports— ... the late Commissioner (of the Burdwan

Division) Mr. Maddox having reported to Government that principal causes of unhealthiness in the larger towns of the Division were due to absence of arrangements for the supply of drinking water and for proper drainage and also that the former should precede the latter, the Lieut.-Governor, Sir Andrew Fraser sanctioned the following grants: Burdwan Municipality, Rs. 10,000, Hughly-Chinsurah, Rs. 30,000 and Serampur, Rs. 20,000, and it is now ordered that these sums should be spent for the water supply scheme before the close of the official year ending 31st March, 1909, or they will be lapsed".⁵⁷ This seems to have been recourse to the method of periodic grants to keep a check on their performance, but this method degenerated when the Secretariat authorities, on one occasion, reported that "they had no record of any promise or offer of a lakh of rupees by Sir Andrew Fraser" for the use of Hughly. Sir Andrew had by then retired to settle in Scotland. De, who had also retired by then, was referred to, and he mentioned the *Rhotas* dinner table conversation at which Fraser had made the promise, and that a reference could be made to the latter. In the *Reminiscences*, he writes in a constantly lurking caustic vein: "I do not think, however, any reference was made. The amount was paid".⁵⁸

This caustic vein continued in his account of the waterworks. When the site of the actual headworks was selected at Bansberia, north of Bandel, so as to be outside the area of outflow from septic tanks and drains in the built-up area, he was present; and Rai Bahadur Mahendra Chandra Mitra guided the work to completion. Yet De had to mention "as a specimen of the way in which the memory of events is recorded in [British Indian] official documents that" that when Lord Carmichael later formally opened the waterworks, neither De nor M. C. Mitra were mentioned "but the whole or at least the major part of the credit for carrying out the project was awarded to the late Sir Frederick Duke who had about as much to do with it as the man in the moon. Of course Lord Carmichael was in no way to blame. He had to accept the facts given to him by the Secretariat".

The initiation of the waterworks scheme was done, not by the all powerful British authorities, but at all stages from the suggestion of positive steps for planning the project, through the arduous work—arduous in the dilatory conditions of the British Indian style of bureaucracy—of getting hold of an engineer, raising funds, both from the public and from the reluctant Government, and locating the project, by the few Indians who were assigned positions of junior authority by the British, who did not particularly trust these collaborators. The Indian official "elite" in 19th and early 20th century India were treated as intermediaries by the superior authorities; when the intermediaries were able to deliver amenities to their countrymen, they naturally developed resentment against the hindrances inherent in their junior position in the bureaucratic structure; and this side of municipal self-government was perhaps as important as the faction politics and *daladali* which it has become the fashion

of some Western scholars to try to revive, by their fanciful talk of subordinate elites or "Bengali sub-imperialism".⁵⁹ Men like Brajendranath De or M. C. Mitra were not sub-imperialists, but merely public servants endowed with civic sense.

THE ORGANISATION OF THE AGRICULTURAL AND INDUSTRIAL
EXHIBITION IN CHINSURAH AND CONSEQUENT
CONTACTS WITH THE SWADESHI MOVEMENT

As a member of the I.C.S., De was never afraid of utilising Bengali reform movements in the welfare of the districts with whose government he was entrusted. In the 1880s, we find him attending "an annual function in connection with the Uttarpara Hitakari Sabha (an association for the promotion of female education and general social improvement) which used to be held with some eclat in the house of Babu Bijoy Krishna Mukherjee, the President of the Sabha".⁶⁰ John Beames, then the Commissioner, who was also present with other Europeans took "umbrage" at comments "about European manners and customs" which were made by N. N. Ghose, the well-known Barrister and publicist,⁶¹ and he left the meeting followed by most of the Europeans. After the loyal President had pacified Beames and prevailed on him to return, Rev. Pratap Chandra Majumdar, the renowned minister of the Naba Bidhan Brahma Samaj again "put his foot into it and Mr. Beames, again, and this time finally left the meeting, which broke up in confusion".⁶²

De's sympathy with the political values of the Uttarpara *zamīndārs* continued when he returned to Hughly in 1905, and acted as Commissioner, himself in place of W. H. Walsh, who was on leave at Darjeeling. He paid a visit to a Swadeshi Bazar at Uttarpara, which had been established under the aegis of his old friend, Raja Pearymohan Mukherjee, and expressed his satisfaction that it contained imported as well as indigenous articles. This was the year of Curzon's Partition of Bengal and "Swadeshi was a great bugbear to European officials".

A report came out in a vernacular newspaper that De had expressed great satisfaction with what he had seen in the Swadeshi Bazar. Walsh wrote him a demi-official letter informing him of the Lt.-Governor (Fraser)'s displeasure at reading this news and for De's visit to a Swadeshi Bazar.⁶³

De's views on his reply to Walsh bring out clearly the conflict that an Indian I.C.S. felt in having to support the Government during the Swadeshi movement.

"I should have gone to inspect it, even if it had not been connected with a loyal and distinguished zamindar like Raja Pearymohan Mukherjee ... even if it had been established by a most rabid extremist. I considered it my duty to go and inspect every institution in my district or division, even if it was actually and avowedly hostile to the Government. It was there and I would

have deemed it a dereliction of my duty if I had ignored it; and like the proverbial ostrich, buried my head in the sand. ... I had, for a long time as far as it lay in my power, encouraged the manufacture of Swadeshi things, but at the same time, I had never advocated the boycotting of imported articles, whether of British or foreign origin; and I could, therefore, frankly and openly express my satisfaction that in this avowedly Swadeshi Bazar there were imported articles for sale also... In my reply [to Walsh] I said I had certainly visited the Bazar but I had expressed my satisfaction at the fact that I had seen imported as well as Swadeshi articles for sale there. I heard nothing more on the subject, but I am afraid it was the cause of a black mark being awarded to me if it did not actually seal my fate [in terms of non-confirmation in the substantive rank of Commissioner in the I.C.S.]. I have thought, since, that I should have written a stronger reply. I should have said that I had not only not done anything wrong in going to see the Bazar, but I should have actually failed in my duty if I had not done so. It was my duty to make myself fully cognisant of everything that was happening in my district or division. The Sawdeshi Bazar was there, and it was my duty to inspect it, and form my own judgement about its merits and demerits. The fact of my ignoring it would not have had the effect of abolishing it, than the hiding of its head by the ostrich has the effect of destroying its pursuer".⁶⁴

Reverted to the post of Magistrate, De concerned himself with organising an annual "series of Exhibitions in Chinsura in the teeth of considerable opposition," this time from Indian vested interests. Kishorilal Goswami, as usual motivated by particularist instincts, suggested, in the meeting that De convened in his office, "that if an Exhibition was held at all, it should be held in Serampur and during the Rath Jatra (car festival)" which was traditionally located at Mahesh, at which time a *mela met* in this suburb of Serampur. De believed that a superlocation of one *mela* on another in a very small town might lead to the outbreak of an epidemic. He was able to clinch the issue by ridiculing "Kishori Babu (... as ...) such an ardent advocate of Serampur that he would probably not rest till he had got the Collector and even the Commissioner located there".⁶⁵ Many people still believed that it would be difficult to locate a worthwhile exhibition of agricultural and industrial products near Calcutta; it was, however, agreed that an experiment could be made, if De took the sole responsibility.⁶⁶

The lengthy advertisements of the four exhibitions held in February, 1907, 1908, 1909 and 1910, appeared in the *Chinsurah Bartabaha* under the name of "B. De, Treasurer". He was helped by many subordinate officers, including the District Engineer, "and also an enthusiastic band of volunteers, pleaders and others".⁶⁷ This is another example of the way in which De used his social prestige with local gentry and Indian officials to form a working group for constructive public efforts. The *Chinsurah Bartabaha* noted these efforts with

approbation which increased each year, and in 1910, the year of his retirement went so far as to propose that the exhibition, which had become an annual event should be called "The B. De Agricultural and Industrial Exhibition";⁶⁸ a proposal which does not seem to have borne fruit.

It was always organised on one of the halves of the "Kutir Maidan", the core of the Dutch Settlement in front of the Chinsurah Collectorate and the Commissioner's House. The Exhibition always consisted of shows of handicrafts, horticulture, vegetables, crops, animals, and other commodities produced in the district of Hughly; and of all-night theatrical performances by leading Calcutta companies of plays, such as D. L. Roy's "Mebar Patan".⁶⁹ These shows gave to the Chinsurah region, a sense of participation in the culture of Calcutta, as well as knowledge about economic advancement in the villages of the region itself. De notes that "these and other similar exhibitions gave a considerable impetus to various industries. There was of course general awakening among the industrial classes. This was noticeable even among the most ignorant and conservative amongst them, the common *ryots* or cultivators of the soil."⁷⁰

De's faith in mofussil agricultural and industrial Exhibitions as the best demonstration for stimulating a desire for democratic agrarian growth and capital formation dates back as early as 1890, when as Magistrate and Collector of Khulna, he had organised the first such exhibition there. "The fact that I inaugurated them has sometimes been forgotten. In fact, I remember seeing in a newspaper, that on the occasion of the opening of one, some years ago [i.e., in the 1920s] it was publicly asserted by the Chairman, the late Nawab, Sir Syed Shamsul Huda, that they were inaugurated by the late Ashrafuddin Ahmed, who was Magistrate-Collector of the District some years after I had left it".⁷¹ He took the help of Dr. K. D. Ghose—the unfortunate father of Sri Aurobindo—the Civil Surgeon and first elected Chairman of the Khulna Municipality.⁷² When he was at Maldah, from 1903 to 1905, he inaugurated exhibitions at English Bazar, and attempted to introduce the weaving of *Benarasi Saries*, the highly embroidered silk cloth for women to compete with material which was generally then woven in Benaras with raw silk grown in Maldah; though, in this case, the Benaras weavers could not teach the Maldah men the tricks of the trade; De added to the existing *jatras* (indigenous theatricals), etc., shows of garden produce, cattle, manufactures and above sericulture and silk weaving, the main cash crop of the region. These exhibitions made large financial profits, which were "devoted to various useful purposes",⁷³ and they were favourably noticed in the news columns of the *Bengalee*, the leading vernacular newspaper in Calcutta, which was edited by Surendranath Banerjee.⁷⁴

His general conclusions on the uses of these exhibitions show the permeation of the Swadeshi spirit of national capital among the non-official activities in which Indian members of the I.C.S. took part even before the Partition of Bengal.

“Various small factories for different kinds of useful and ornamental articles were springing up in all directions. What the exhibitions did was to bring together the articles manufactured in the different factories and to create a spirit of emulation and rivalry in the artisan, which, of course had its effect on improving the quality and increasing the output of the factories. This is quite apparent to anybody, who passes with an observing eye through such thoroughfares of Calcutta as Harrison Road and Dharmtala Street and even along the streets of the larger mofussil towns. The shops one sees there for the sale of trunks, bicycles, electrical appliances, perfumery, textile fabrics, etc. testify to the general awakening of the economical and industrial workmen in Bengal and the growing spirit of rivalry. The articles produced, though they are not quite similar to articles of British, American or German factories, are still immensely superior to the articles of the same kind, which were produced in the country, thirty or twenty or even ten years ago. Of course, such things as motor cars, railway engines and carriages, not to speak of aeroplanes and zeppelins, have not yet been built. I hope they will be built, sooner or later; but the time is still somewhat distant. More both of theoretical and practical experience are required; and there is besides the opposition of foreign manufacturers, and their agents in the country to contend against. One Bengali who established a workshop for the repair and manufacture and sale of motor cars, had to close it on account of these various causes, among which the last mentioned loomed fairly large”.

The faith in Swadeshi economic enterprise which is manifest in these lines was fairly common among both Indian gentry and people in non-official professional activity as well as Indian Officials of the British Empire, even before the Bengal Partition movement. It did not diminish during the days of the Great War boom, or the 1920s when De wrote his *Reminiscences*. We have noted that he was a member of the Board of Directors of the Equitable Insurance Co., and of some Advisory Committees of the Calcutta Improvement Trust after his retirement. His faith in the ultimate victory of Swadeshi was, however, based on the laissez-faire economic theories, which were common to even the nationalist leaders of the 19th century. He thought that enterprise was the “natural” outcome of the spirit of competition; that competition was fostered by officials of the state by means of protective regulations for increase of the supply of commodities, as well as by means of measures for the creation of demand. He believed in slow and steady growth by means of the free operation of the market, feeding agrarian commodities into industry, not in any “Big Push” for induced development. On the other hand, like Dadabhai Naoroji, or Romesh Chunder Dutt, his colleague in the I.C.S., he was fully aware of the crucial role played by the British metropolitan economic relations with the colonial economy in stultifying indigenous growth in the under-developed markets of India.

What De lacked was the power and the opportunity, as well as the support

of enlightened public opinion, which was very small, and perhaps even more the imagination to break out of the colonial system which maintained Britain's metropolitan hold over the colonies. This was the basic dilemma of many of the genuinely patriotic early Indians in the I.C.S.

ATTITUDE TO ANTI-PARTITION UNREST IN HUGHLY DISTRICT

One aspect of this dilemma was that men like De were genuine patriots, when it was a question of working for self-government, or for the creation of an economic base from which uplift could be planned, but he was not prepared to further criticisms of the despotic British administrative system which maintained itself on a primitive economy and was an obstacle against the creation of the base which he laboured to build. In 1882, De had been outspoken in his criticisms of superior English Officers, such as Beames, who behaved like *Herrenvolk*,⁷⁵ but when he was Magistrate of Hughly throughout the agitation against the Partition of Bengal, he had no sympathy (even in his *Reminiscences*) for the great political movement, which after 1905, revolutionised Indian nationalism, by imparting to it a revolutionary cutting edge. In the terminology, devised by a very imaginative young Indian historian of nationalism,⁷⁶ he was one of the constructive moderates.

Like many administrators who see little use in the diffusion of political ideas among the masses, he thought that it did not really exist, but that much of what was thought to have happened in 1905 or 1906 or 1907 was the result of small incidents being "magnified by certain over-zealous and unscrupulous Indian Police Officers, who saw a means of self-aggrandisement . . . and even suggested the existence of unrest and conspiracies where none, in fact, existed. Some of them, as a matter of fact, received promotions and titles in this nefarious way". In Hughly District, there was "seething unrest" but only some of it was "real", and the rest created by Indian members of the Indian Police, who found it useful to act as *agent provocators*.⁷⁷

The distinction of "seething unrest" into "real" and "magnified by Police Officers" is not entirely a figment of administrative shortsightedness. What De meant was that the common people might resent the Partition of Bengal and the arrogant contempt expressed by Curzon and his officials for Bengal but that this resentment was not generally translated into terrorism. He felt that the evidence of sedition or terrorism was created by magnifying puerile or even constructive expressions of resentment into tales of sedition. This was done by Police Officers who were responsible for the enquiry.

De gives two examples of what he considered were manifestations of unrest in Hughly. Early on in the agitation, a few school-boys shouted *Bande Mataram* which he ignored, and this permissivity, he felt, kept hurt feelings at a very low ebb. On the other hand, when the school-boys went to the extent of throwing mud at a dog cart in which Mr. Gebbie, a Railway Engineer (surveying for the

building of a line from Bandel to Rajmahal) was driving with his wife to the Chinsurah Club, and some mud struck Mr. Gebbie, De took steps by asking three of the most influential inhabitants in the part of the town where the trouble had occurred, to find out who was the culprit. This was immediately done and when Gebbie said that "he would leave the matter of punishment to the gentlemen who had discovered the culprit, and would be perfectly satisfied with anything that they would do, they directed that the lad should sit down and stand up a dozen times holding his ears in his hands during the whole time. Thus ended this incident which might have plunged the district into a sea of trouble and unrest".⁷⁸

The circumstances in which both the incidents developed from acts of boisterousness into the possibility of general disturbances added weight to De's belief that Police interference tended to bloat the significance of childish franks. He did not remember very much about the *Bande Mataram* incident, but there is some account of it in the *Bengalee* of 15th November, 1905. This incident was rather similar to that of Gebbie; on the 6th November, four boys, Lakshmi Narayan De (First Arts student, Hughly College), Benoy Kumar Saha (Entrance class student, Hughly Collegiate School), Khagendranath Mookherjee (Entrance class student, Chinsurah Training Academy) and Atul Chandra Sen, alias Bhona, (ex-student and son of a wealthy and respectable bullion merchant of Calcutta) after attending a Swadeshi meeting at the house of the noted Zamindar of Chinsurah, Babu Romesh Chandra Mundle, under the presidentship of the renowned Bengali litterateur Akshoy Kumar Sarkar, shouted *Bande Mataram* on Barabazar Road, Chinsurah on their way to hire a boat at Machuabazar Ghat to go and see the immersion of Jagadhatri images at Chandarnagore. The shout was heard by the Excise Commissioner of Bengal, Mr. Lang, who was on a tour of local inspection with Moulvi Mahomed Khurseed, Sadar Inspector of Police, Hughly. He had been Magistrate of the District in 1896, and took it as an insult. Babu Tarini Charan Bhattacharya, Sub-Inspector, of the Sadar Thana, who was in plain clothes was sent to take down their names and schools. When he caught up with them at the Ghat they said "that they would like to see Mr. Lang about the matter and explain to him clearly that they meant no insult by shouting *Bande Mataram*, but Lang had gone away."⁷⁹

On the same evening Brajendranath De wrote two letters to Babu Hem Sashi Shome, proprietor of the Chinsurah Training Academy and to Mr. Shaw, Principal of the Hughly College. The letters were very permissive and left the solution of the matter in the hands of the Principals themselves. Shome, a Bengali, was placatory and "sent a prompt reply to the letter with the following statement of his pupil. On the 6th inst. when passing the street with song of my comrades I cried out *Bande Mataram* without the least intension of annoying anyone whatsoever, not to speak of Mr. Lang, of whose presence I was not at all aware at the time I cried out. Yet if I have unwillingly annoyed Mr.

Lang by so doing, I am sorry for it". Shaw, the Briton, however, decided to penalise his two students. He rebuked them, fined them Rs. 3/- each, and directed them to give the same day (7th November), a written undertaking to De, that in future, "They would be of good behaviour". His attitude was typical of the rigidity of outlook of many Principals of Government Colleges in Bengal in later years.

The reaction of the two students, and of their guardians, and of many members of the local gentry, are also typical of the radical reaction to such loyalist rigidity. The students first petitioned Shaw himself on three counts: Their guardians were respectively a clerk in one of the Calcutta Offices, and a pleader practising in the Calcutta Police Courts, and they could not pay the Rs. 3/- fine on the day required, without consulting these people, who were in Calcutta and would not return before a week. They had not been guilty of any ungentlemanliness to Lang. They prayed for an enquiry into the matter "to see whether they were really guilty of the charges". The Principal then told them that he would pass orders after consulting the Police Inspector; but fortified by that worthy's opinion, on the 8th November, he convened a meeting of two boys each from the Entrance Class of the Collegiate School, and from the 1st, 2nd, 3rd and 4th Year Classes of the Mohsin College, and in their presence, required L. N. De and B. K. Sahu, merely to give a written undertaking and apology to the Magistrate, Brajendranath De. The two boys stood firm in their request to consult their guardians; and were then fined Rs. 3/-. On the 11th November, Shaw called them back and said that if they would merely write, either to him, or to the Magistrate or Lang, that "if they had done anything wrong unconsciously by shouting *Bande Mataram* they were sorry for it" the Rs. 3/- fine would be remitted. But the boys repeated their stand. On the 12th, a meeting was again convened in the house of Babu Ramesh Chandra Mundle, at which the President of the Hughly Bar Library, K. C. Roy presided "it was decided that the students had no intention of insulting or offending Mr. Lang", rumours were voiced that if Mr. Shaw did not remit the fine unconditionally "on or before the 5th December, when the school fee for December will be done, the boys both in the College Dept., and the Collegiate School will...boycott the institution and join the National University which is contemplation by the leaders of the country".⁸⁰

The last rumour was a piece of kite-flying by Surendranath Banerjee's *Bengalee*. But the incident shows forces which had arisen to change the social picture of municipal politics radically since the 1880s. The local Hindu gentry were able to take a stand independently from promptings by the I.C.S. The I.C.S. official, De was content to let them take their own stand, and in fact, to devolve on them solution of political issues in the town by themselves, and the young students were showing will power and capacity to handle legal processes of sanction or enquiry, without being intimidated by British functionaries. In

this case, Police meddling did not create the situation as it developed from the 6th to the 12th November, it was the new assertiveness of the Bengali middle class youth, which set the pace. This was a new tendency which the conservative De could not really grasp.

In the Gebbie case, after Gebbie had arrived at the Chinsurah Club with mud on his face, the Commissioner of the Division, Walsh, himself took immediate steps. He "at once wrote a demi-official letter, which he sent to [De] by the hand of the Inspector or Sub-Inspector of Police, I do not now recollect which; and in which he told me as far as I now remember that it was intolerable and that such a thing was intolerable in the chief town of the district. He probably intended that I should at once institute a police enquiry into the matter". De believed that the police would have no means of finding out the culprit, since "all the people of the neighbourhood, who might know who the culprit was, would try to protect him", and in such a case, the police officer concerned with the enquiry might try to bolster up a case, with false evidence against a scapegoat; this would inevitably lead the latter to bring witnesses to prove his innocence and if he had none, would get some to perjure their themselves. This would all lead to ill will and bitterness in the locality. Consequently, as the Magistrate, De decided to refuse to order a Police enquiry, and instead took the executive action of appealing to influential public opinion, with the result, described above, that the latter found the culprit quickly and made him humiliate himself before Gebbie.⁸¹

The techniques of quietening political unrest in one of the more urbanised districts of Western Bengal during the 1905-6 agitation become clear in these incidents. The youths who were anxious to prove their mettle, by standing firm before the "Biliti Sahebs", had emerged as a social force to be reckoned with. The Police Officers, out to prove their worth, found these troubled waters useful to fish in. The British members of the I.C.S., conscious of being on a knife-edge between stability and sedition, were quick to seize the opportunity of building bulwarks against the new tides of sedition. The Indians in the I.C.S. were unable to distinguish between a new social group, out to fight the British and the poor victims of trumped up Police evidence. In this contact, Indians like De, or many others, whose names are still remembered in Bengal, were pushed on to the sidelines, while the new nationalists and the British fought out the conflict about self-respect and paternalism.

The picture that emerges is one of slow change, almost amounting to stagnation, in urban amenities in the Hugly-Chinsurah urban area. At the end of the nineteenth century, the traditional Muslim gentry and their deputies who administered religious trusts, were on the decline all over Bengal. The picture painted by W. W. Hunter in his *Mussalmans of Bengal* is true of Hugly which since the early 18th century had been an urban centre for the trade of immigrant merchants from Persia. In 1882, the Mutawalli of Haji Muhammad

Muhsin's great endowment had become a sycophant of the British rulers, and took orders from a committee in which sat an I.C.S. and a member of the new Muslim gentry of the robe, the later famous Saiyad Amir Ali. The conflict between old and new, between the degraded '*ulamā*' of Bengal and the new Muslim bourgeoisie marks the beginning of modernisation in Hughly.

In the vanguard of this modernisation was the new pleader class, who also lived by Government patronage, but were independent enough to initiate policies on the new Municipalities, which were chosen on the elective principle, of the Local Self-Government Act. In Hughly itself, this new leadership was Hindu, but this does not mean that it was communal. It was represented by the Mitra family, which used its position as Government pleaders and controllers of the Municipality to initiate schemes for the improvement of the urbanised area. It is significant that by the late 19th century, there were very few zamindars, on the land, who had capital or desire to put up money for public utilities. The Mitras, and De had to go to the Law family of Calcutta, who were Hughly Subarnabaniks (or gold exchange merchants—a ritually impure caste for Brahmans to take water from). They had then migrated to a far more profitable business in money landing or brokerage for land transfers in the metropolis. But the Laws gave money as conscience-charity and not for ploughing back of profits gained from the base of their production of wealth. Consequently the initiative of the leaders of the Babu middle-class in areas like Hughly or Chinsurah was hardly backed by the stable support of indigenous wealth.

The pleader class, dependant therefore on the resources of the Government, looked to compatriots like Brajendranath De, who could act as intermediaries with the higher authorities. The constant reliance of the Indian middle class on Government support is something for which it has often been castigated by indigenous writers like Sri P.C. Ray⁸² or foreign analysts like George Rosen.⁸³ But this reliance was inevitable in a country, where only massive public expenditure in the development of social overheads could pull the economy out of the ratchets of a trap. Consequently, De played a potentially crucial role, in what the new behavioural scientists have called "the linking pin" relationship, between the potential spenders of public funds and the newly emergent middle class.

However, the professional legal class of the mofussil towns, in addition to being dependant on the patronage of a "night-watchman" Government, was also minute in relationship to the peasantry all around them, from whom their fees were drawn, and with whom they had few connections, either of caste or education. They were also internally divided by parochial rivalries. An example of these internal rivalries within the mofussil leadership may be found in the parochial sectionalism—the parish pump politics *par excellence*—of Kisori Lal Goswami of Serampur, which has been described above. It was he who was to gain the title of Raja by the patronage of the provincial government and

his son, Tulsi Goswami used his father's politics as a base to move into the "Big Five" of the neo-Tammaru politics of the Bengal Congress in the 1920s and 1930s. In this type of inter-municipal rivalry, the Bepin Babus and the Mahendra Babus of Hughly lacked, in the early 20th century, the base of industrial support that Serampur with its jute mills had begun to command. In the long run, the new industries were bound to triumph over agricultural commerce centres, even if the substitution from labour-intensive techniques to capital-intensive techniques, and the possibility of plough back of large profits from the production base, was low in the case of the jute industry.

The British-controlled I.C.S. could have held the ring. But men like the Divisional Commissioners in Chinsurah found more racial sympathy with the jute mill owners of the Serampur region than with the staid Babus, who played billiards in the Duke Club in Hughly. Even if one munificent Lieutenant-Governor promised a large grant, aid was never regular. In these circumstances, the Swadeshi sympathies of De militated against his successful performance of a linking-pin role.

This is illustrated by a sequel to his official career at the time of his retirement in 1910. Sir Satyendra Prasanna Sinha, later Lord Sinha of Raipur was at the apex of the hierarchy of the government pleader category of the Bengali middle class. By family origins, he was also a member of the merchant-landlord class of Birbhum. On the 5th September, 1910, the day on which De retired from the I.C.S. he wrote as Member of the Viceroy's Executive Council to Lord Minto, the Viceroy about the problem of nominating the first Bengali to the newly-projected Bengal Legislative Council and pointed out that a leaderette had appeared in the leading Allahabad English-language paper, the *Pioneer* which on the eve of De's retirement had detailed the unrequited nature of De's services to the country: "At the risk of appearing importunate, I make bold to say that if Mr. De does not satisfy the standard for an Indian member of the Provincial Council, very few of us indeed would have any chance for it. His educational qualifications are far superior to those of Mr. K. G. Gupta" [later Sir Krishna Govinda Gupta, who had joined the I.C.S. in 1870, one year before De, who became the first Indian member of the Secretary of State for India's Council in London, along with Saiyad Hosain Bilgrami of Hyderabad, who had taught English to De in Canning College, Lucknow in the 1880s; Gupta was one of the candidates for the Council Seat to be nominated by the Government] "and to my mind the fact that the latter became a *pucca* [i.e., confirmed] Commissioner and the other did not is by no means a conclusive test". This information was passed on by the Viceroy to Sir Edward Baker, the Lieutenant-Governor of Bengal, whom we have seen browbeating the Mutawalli, and Baker in a telegram dated 7th September, 1910, to Minto replied that "I have now considered B. De of Hughli; he has long been permanently passed over for Commissioner, and there would be con-

siderable awkwardness in promoting him over the heads of his superiors to Council. If possible it is desirable to avoid this. He is not very reliable and recently committed an extraordinary error of judgment in a Court of Wards case".⁸⁴

Sinha was to become President of the National Congress within a few years and his opinions are interesting. On the other hand, while Baker was probably *bona fide* in his view of De's lack of reliability, it may be noted that the case, which his subordinates put up to him, was certainly not an "extraordinary" case of error, as he suggested. Babu Rashbehari Mukherjee of the Uttarpara family, a relative of Pearymohan, had wasted large sums of his fortune in charitable prodigality, and had asked for De as Magistrate of Hughly to have his estate put under the Court of Wards. After this was done, large sums were borrowed by the Court on account of his estate from an Agra banker and other creditors, unsecured as well as secured. While De was on leave, Mr. Bradley-Birt (later the propagandist of the partitioned province of East Bengal and Assam in his book, *Dacca, Mughal Capital*) officiated as Magistrate and permitted the payment of interest and capital to unsecured creditors before the interests of the secured creditors were ascertained. When De returned, he took steps to rectify the error and to arrange for prior payment of the secured creditors, but the estate was too encumbered to allow speedy payment. Immediately before his retirement, he heard that the Agra banker had launched a suit against him, as Magistrate, the I.C.S. Member of the Board of Revenue, and the Secretary of State for India in the Calcutta High Court for the error and non-payment of debts.⁸⁵ Thus it seems that Bradley-Birt was at least as responsible as he was, if not completely for the black mark which Baker used to disqualify him. In any case, it seems to have been De's friendship with the Swadeshi Uttarpara Babus which was the reason for the Bengal Government's displeasure with him. In the event, also, Kisorilal Goswami became a member of the Bengal Legislative Council of 1911.

Thus we find that public-spirited Indians in the I.C.S. were hardly the type of people who were either above municipal politics or capable of participating in the rough and tumble of provincial politics. Their support was based on the affection of small-town loyalist government pleaders, and similar members of the *mofussil* bourgeoisie. If they inspired the devotion of the peasantry in the district exhibitions, or in their tours into the interior, on foot or no horseback, these people were not interested in schemes of urban reform anyway. The political aspects of reform remained in the hands of the moneyed *zamīndārs* like Binaya Krishna Deb of Sobhabazar in the 1890s, the sponsor of R. C. Dutt, the Goswamis of Serampur, the family of Kiran Sankar Roy, and the people based their influence, increasingly, in the twentieth century, on connections with businessmen like the Laws, Dharendra Narayan Mukherjee, a cadet of the Uttarpara family, the founder of the Hughly Bank, or Nalini Ranjan

Srakar, of the Hindusthan Insurance Co. It was the combination of successful landlords with successful businessmen, which maintained the political power of different varieties of nationalism in Bengal.

It will be noted that in this paper, I have not used the categories of *élite* or *bhadralok* to explain types of political reactions. It is true that municipal politics or provincial nationalism was a *bhadralok* and elitist activity: all political and activist consciousness was in 19th and early 20th century India, a fact that has just dawned on Commonwealth and American historians. But the real classes which contested interests and policies in Bengal from 1882 to 1911 were already distinguishable from each other in terms of the sources of their income: peasantry, petty bourgeoisie in the mofussils, mofussil petty bourgeoisie with Government patronage, and some newly acquired land, the higher civil servants, the larger landlords, and the new entrepreneurs (principally financiers) of Calcutta and Dacca. And there were the middle classes of Calcutta, who continually migrated there in search of jobs from the schools and colleges of towns such as Hughli-Chinsurah. It was the young men of these educational institutions in the 1905, who would swing the votes in the post-1905 elections, and the principles of equity and liberalism of higher civil servants like De had nothing in common with the doctrines of the new era.

NOTES AND REFERENCES

1. Philip Woodruff, "The Men who Ruled India", *The Guardians*, London, 1954.
2. L. S. S. O'Malley, *The Indian Civil Service*, London (new edn. by Frank Cass).
3. G. Rosen, *Democracy and Economic Change in India*, Berkeley and Los Angeles, 1966, pp. 52, 53, 54-5.
4. Barun De "Brajendranath De and John Beames—a Study in the Reactions of Paternalism and Patriotism in the I.C.S. at the time of the Ilbert Bill", *Bengal, Past and Present*, LXXXVI, pt. 1, Jan-June, 1962.
5. Quoted in W. H. Moreland, *The Agrarian System of Moslem India*, Allahabad (re-edn.), p. 130.
6. Brajendranath De, "Reminiscences of an Indian Member of the Indian Civil Service" (copy of the original type-script in the possession of his son, Shri Basanta Kumar De. The text has been published with a few omissions of redundant details), *Calcutta Review*, Apr., 1953, p. 49. All further references will be to RIMICS, CR.
7. cf. Barun De, article in *Bengal, Past and Present*, *op. cit.*
8. The second Indian I.C.S., and the first Indian Magistrate and Collector as well as first Indian Commissioner at Chinsurah was Romesh Chunder Dutt (1894-1895, actg. Commissioner—1895, Magistrate of Hughly) cf. J. N. Gupta, *The Life and Work of R.C. Dutt, C.I.E.*, London, 1911, pp. 159, 164-5.
9. RIMICS, CR, Apr., June, Aug., Nov., Dec., 1953; Jan., Apr., June, Aug.-Sept., Nov., Dec. 1954,—July, 1955. G. D. Crawford, *The Hughli Medical Gazetteer*, Calcutta, 1905. S. C. Dey, *Hooghly, Past and Present*, Calcutta, 1907.

10. Crawford, *op. cit.*, pp. 243-4.
11. RIMICS, CR, June 54, 231.
- 11a. *Ibid.*, pp. 231-32.
12. *Ibid.*, p. 232.
13. Crawford, *loc. cit.*, p. 244.
14. RIMICS, CR, June, 1954, *loc. cit.*,
15. Crawford, *loc. cit.*
16. *Ibid.*, pp. 232-33.
17. *Ibid.*, p. 233.
18. *Ibid.*, p. 123.
19. *Ibid.*, p. 234.
20. *Ibid.*
21. cf. Barun De, 'Brajendranath De and John Beames—A Study in the Reactions of Paternalism and 'Patriotism in the I.C.S. at the time of the Ilbert Bill', *Bengal, Past and Present, op. cit.*
22. *Ibid.*, Aug. 1954, p. 143.
23. *Ibid.*, June 1954, p. 125: He was "then a very old man and completely blind. . . . He was very regular in his attendance, and gave his opinion on all subjects under discussion with great vigour and precision". His son Babu (later Raja) Peary Mohan Mukherjee, used to attend him, even to the extent of being with him in the Board meetings. "I have since then often met Raja Peary Mohan Mukherjee and have enjoyed his hospitality".
24. cf. Barun De, BPP, 1962, *op. cit.*, Hugh Tinker.
25. *Municipal Progs. Misc. Bengal, 1884* (Vol. 2242), No. 436, 17.7.1884 from G. Toynbee, D.M. Hooghly to the Commissioner, refers to a Minute of a Municipal meeting, 10.6.1884 in which De, seconded by Babu Mahendra Mitra made a proposal for a plan for waterworks. "This was carried unanimously. Moulvi Ashrafuddin Ahmad alone declining to vote". Indian Office Library, Commonwealth Relations Office, London.
26. S. C. Dey, *Hooghly, Past and Present*, pp. 412-419.
27. RIMICS, CR, June 1954, p. 235. He was the last I.C.S., and the first Indian to be elected Chairman of the Hughly-Chinsurah Municipality (which had been formally set up in 1865) and succeeded his District Magistrate, F. W. Wyer, cf. *Annual Administration Report of the Hooghly-Chinsurah Municipality for the year 1956-57*, p. 2.
28. *The Hindoo Patriot*, 31.3.1884 notes with approbation De's activities in a mango garden near Daudpur, to explain the duties of Local Self-Government to meetings of about 300 electors. The people seemed to be much gratified.
29. *The Hindoo Patriot*, 19.3.1883.
30. Crawford, *Hughly Medical Gazetteer*.
31. RIMICS, CR, June 1954, pp. 129, 237, 239.
32. *Ibid.*, p. 236.
33. Part of the reason for this segmentation must have been caste conventions which prevented non-Westernised gentry from taking even the *gharas* handled by low-caste people in the Jail staff.
34. RIMICS, CR, *loc. cit.*, p. 235.
35. *loc. cit.*
36. *Ibid.*
37. I.O.L., *Municipal Progs., Misc. Bengal, 1884* (Vol. 2242), *loc. cit.* RIMICS, CR, p. 235. The Municipal Progs. Bengal record that "Campbell's "preliminary estimate was for Rs. 1,80,000, say Rs. 2,00,000." Consequently the committee wanted the complete scheme before them. He died on the 3rd May: on the 10th June, De, seconded by Mahendra

Mitra proposed that Government be asked to send another engineer to complete Campbell's estimate (*loc. cit.*). The Commissioner forwarded copies to the P.W.D. and the Financial Department of Bengal at Darjeeling on the 14th July, and on the 9th August, 1884, the Secretary, P.W.D. notified the Finance Secretary, the "this Dept. has no officer available at present who could be detached for the duty of preparing the water-supply project of Hooghly-Chinsurah Municipality, but that the Executive Engineer of the Burdwan Div. who resides at Hooghly, will be instructed through the Superintending Engineer of the Central Circle to undertake the duty if the Municipality will make over to him the papers prepared by the late Mr. Campbell". On 20.8.1884, a copy of this letter was forwarded to the Commissioner at Chinsurah for information and communication to the Municipal Commissioners.

38. RIMICS, CR, June 1954, p. 237.
39. *Ibid.*, p. 239.
40. *Ibid.*, p. 237.
41. *Ibid.*
42. Mr. De's son, Mr. B. K. De remembers that in the 1905-1901 period, it was surrounded by a wire fence.
43. RIMICS, CR, June 1954, p. 237.
44. S. C. Dey, *Hooghly, Past and Present*, p. 416. There is an account of his life on pp. 412-418.
45. RIMICS, CR, June 1954, p. 240.
46. *Chinsurah Bartabaha*, 1909.
47. All dates about the incumbency of the Municipal Chairmanship are taken from the *Annual Administration Report ... of the Municipality ... 1956-57, loc. cit.*
48. K. L. Goswami countered this by saying that the Howrah Waterworks were near Bally, and so the projected expenditure of Rs. 6 lakh there, was necessary.
49. *Chinsurah Bartabaha*, 23.6.1907.
50. *Ibid.*, 30.6.1907 : Fraser came to Chinsurah on the 23rd July, and left for Serampur on the 25th, going to Calcutta on the same date.
51. RIMICS, CR, June 1954, p. 237.
52. "Later on, in the evening when Sir Andrew entertained the officers of the district at dinner on board the 'Rhotas', he beckoned me to the seat next to his, after the ladies had left", *ibid.*, p. 238. After dinner conversation, while the sweet wines were passed around, seemed to have been the favourite place for British senior officials, who came to Hughly, to arrange for the initiation of policy decisions.
53. *Ibid.* The sum promised was small because "expenditure would be confined to the laying of pipes and the erection of hydrants and the price of water taken from the Howrah Head-Works", and since Serampur was a more compact town than the straggling seven-miles long Hughly-Chinsurah Municipality.
54. *Ibid.*, p. 239.
55. *Ibid.*
56. A leading English-language daily of Calcutta, which was owned by Indians.
57. *Chinsurah Bartabaha*, 27.12.1907.
58. RIMICS, CR, June 1954, p. 240.
59. See, J. Gallagher.
60. RIMICS, CR, Aug. 1954, p. 92.

61. N. N. Ghose, was a school-friend of De at the Colootola Branch School (later called the Hare School) : RIMICS, CR, Aug. 1953, p. 147. He later became Principal of the Metropolitan Institution, editor of the *Indian Nation* newspaper, and wrote *England's Work in India*, a moderately loyal school history textbook, which was taught to generations of Bengali students, as well as a biography of *Maharaja Nobkissen Bahadur*, the famous Bengali secretary of Lord Clive, and collaborator with the East India Company.
62. RIMICS, CR, *loc. cit.*
63. RIMICS, CR, Feb. 1955, pp. 173-74.
64. *Ibid.*, p. 174.
65. RIMICS, CR, Mar. 1955, p. 232.
66. *Ibid.*
67. On one occasion, in the early hours of the morning on which the Exhibition was due to commence, news came that the entire *pandal* for the opening ceremony had burnt down, and it was only the Herculean efforts of the District Engineer's staff which enabled "by a quite remarkable *tour de force*" the building of another *pandal* in the seven or eight hours that remained. *Ibid.*, pp. 226-7.
68. *Chinsurah Bartabaha*, February 1910.
69. *Ibid.*
70. In one of his opening addresses, he mentioned that *ryots* in some parts of the district had learned in the Exhibition that potatoes were a more valuable cash crop than farming. Since they had no new arable for extending potato cultivation, they had now begun to substitute half their paddy crop for the new potato crop, by digging 2½ or 3 feet of earth from the half on which they grew rice, and throwing it on the other half to improve the crop of potatoes. This had also the effect of making the paddy terrace deeper and thus improving the yield per acre of paddy. The *ryots* "did this, although the landlords took half the potato crop as a share of the rent, though he had not moved hand or foot in the matter". De believed in the economic acumen of the lower peasantry, as well as in the demonstration effect as a stimulator of agrarian growth. RIMICS, CR, March 1955, p. 233.
71. RIMICS, CR, Sept. 1954, pp. 181-82. He had learned of the idea from Exhibitions which had been held in Faridpur in the cold weather, even before he first went there as officiating Magistrate and Collector in 1887 and 1888.
72. *Ibid.*, and pp. 180-181, where there are details on Dr. K. D. Ghose's career, and the circumstances of his relations with Aurobinda Ghosh, and his death after hearing of his son's failure in the riding examination of the I.C.S.
73. RIMICS, CR, Feb. 1955, pp. 212-14.
74. *Bengalee*. [I do not have the specific references with me at the moment of going to press]
75. Barun De, BHP, *loc. cit.*
76. Sumit Sarkar.
77. RIMICS, CR., Feb. 1955, p. 176.
78. *Ibid.*, p. 176.
79. *Bengalee*, 15.11.1905.
80. *Ibid.*
81. RIMICS, CR., *loc. cit.*
82. P. C. Ray, *The life and Experiences of a Bengali Chemist*, Calcutta and London, 1932, Chs. XXV and XXVI passim.
83. George Rosen, *op. cit.*
84. *Minto Papers* (in microfilm copy in the National Archives of India. I am much indebted for this reference to Shri Satyapal Ahuja).
85. RIMICS, CR.

INDRA DEVA

The Changing Pattern of Rural Society and Culture : Significance of the Rural-Urban Nexus

THE spectacle of social change in rural India during the last one hundred years, is truly engaging. While many institutional and valuational forms which thrived for millennia have been tenaciously holding on, modern social forces are making an onslaught which is unprecedented in power and speed. The battering of two worlds against each other is producing not only queer mixtures but also compounds which show characteristics different from both the sets of components.

DIFFICULTIES IN THE WAY OF SCIENTIFIC ASSESSMENT

It is not surprising that these processes and problems of social change have not been studied adequately on scientific lines. Scientific study of social phenomena is a new trend, particularly in India. Moreover, empirical research work in rural areas has certain difficulties all its own ; and if the data collected from villages is to become truly representative, the research worker would have to go deep into the interior, ar away from the rail and road routes. India is so vast and varied that investigations will have to be carried out on an immensely larger scale before we can speak with any reliability about trends and patterns of change in rural India. We do not have necessary socio-cultural data for constructing a clear picture even of existing institutions and the values. When it comes to decade-wise comparisons the task is almost impossible.

Even apart from these obvious difficulties there are some basic methodological problems which call for serious consideration. Social science so far has no adequate conceptual and methodological framework for a proper study

of rural society in peasant civilisations. In fact, scientific study of peasant societies has all along been ignored. The sociologists have mainly studied the modern industrialized societies and the anthropologists have concentrated on the study of primitive cultures. But peasant societies which have since the dawn of history contained and even to this day contain the bulk of human population, have been almost completely neglected. After the Second World War, with increasing importance of Asian countries on the international scene the study of rural society in these countries has caught the eye of social scientists. However, in the absence of adequate concepts and methodological tools for the study of this complex socio-cultural reality, methods developed in a basically different context are sought to be applied. Thus, the wholistic study of single village has of late become the common method of studying rural society and culture in countries like India. This approach appears to be based on essentially erroneous assumptions and is bound to have serious limitations. In effect, it assumes that a peasant village is a socio-cultural whole like a primitive tribe and it can be studied by itself. The methods of study developed by social anthropology in course of the study of self-contained tribal communities is sought to be applied to the study of rural society in peasant civilization. The structural-functional approach which gained ground in social anthropology since the twenties of this century under the leadership of B. Malinowski treats specific tribal cultures as isolable functional wholes, and seeks to describe the functional relationships which exist in that culture at the time of study. As a reaction to the extravagant claims of the nineteenth century evolutionists of this school have developed an extreme aversion against the systematic study of socio-cultural change. Monographs on tribal cultures based on this approach, though rich in ethnographic detail, are characteristically deficient in the treatment of culture dynamics. In this sense, the approach had a limiting influence on contributions made even through the study of tribal societies and cultures.

But when this approach was applied to the study of peasant village it had a seriously cramping effect. In the case of primitive cultures, the study of change could perhaps be left out on the ground that in the absence of definite sources (i. e., epigraphic, numismatic, and literary) for constructing their history, it would be better not to speculate regarding the change they had undergone. In case of peasant culture, however, no such argument can be tenable. Even though particular villages do not have histories of their own, they are all parts of a civilization which has a history. If this history is ignored it would be impossible to understand meaningfully even the institutions that now exist. For instance, the existing power structure or social stratification cannot be properly understood without reference to land ownership patterns and revenue systems that come into force from time to time. Employing the current type of structural-functional approach for the study of peasant villages,

precludes the study of rural dynamics in a broad historical perspective.

Apart from this, the conception of single village as a socio-cultural whole had a cramping influence on the study of rural dynamics in a more fundamental sense. By positing rural urban (or folk-urban) polarity the emphasis centred on the differences between the village and the town. The rural-urban nexus was almost wholly forgotten. The fact however seems to be that the key to the understanding of much of the rural socio-cultural dynamics lies in a proper insight into the changing nature of this nexus.

First of all, it must be clearly recognized that the existence of a relationship between peasant villages and towns is no new phenomenon. It is not the modern means of transport and communication that have related the peasant village to town for the first time. Modern technology and other modern forces have undoubtedly brought about a basic change in the rural-urban relationship but they have certainly not begun this relationship. Institutional, cultural, religious, political and economic ties have existed between the peasant villages and urban cultures since the beginning of historical times. In fact cities and towns could not have come into being, or continued to exist without this relationship. The urban centres had to depend necessarily on villages for agricultural products and other rural surpluses. Even for the continuance of these primary supplies a stable pattern of rural-urban relationship was a pre-requisite. The bases of this relationship, however, were much wider. The bonds were not only economic but also institutional, political, and cultural. In fact a majority of the town-dwellers, as well as villagers of the adjoining region shared one and the same cultural tradition. It would be utterly erroneous to think that the tradition of folk-culture was confined to villages. A large majority of the urban people as well were its active bearers. Only the male population of the upper classes in urban centres was usually the carrier of the elite tradition. Women even of the aristocratic and royal families were closer to the culture of the folk. This can be seen from the fact that in many Sanskrit dramas it is only the upper class men who speak Sanskrit. Even royal ladies, as well as the lower class male attendants, speak Prakrit. Obviously, even in large towns the majority of population shared with rural people in the adjoining regions essentially the same stream of folk culture.

Apart from the stream of folk culture which bound up the rural and a large section of urban population, the elite and folk traditions have themselves not remained unrelated. They were based on a fundamentally common worldview, which resulted in essentially similar manifestations in the two domains. For instance the themes found in elite literature (e. g., the frolics of Krishna) are found also in folk literature. The difference between the two streams of culture is chiefly that of degree of refinement, systematisation and articulation. Traditionally there has been no basic conflict between the

values underlying each. In fact it is this sharing of values which explains why the traditional elite culture did not imperil the folk culture even though both were interacting with each other constantly. As we shall see, the modern forces have changed the nature of this interaction, with the result that the very existence of folk culture is threatened.

The rural and urban sectors have also been related through established patterns of institutional relationship. No caste is confined to a village. Every caste normally includes people living in towns as well as villages of the region. The higher tiers of caste panchayats exercised social control not only over villagers but also over urban people belonging to their respective caste. The kinship bonds too extended far beyond the village, and most families living in traditional urban cultures had some relatives in the country side also.

Thus there have been traditionally established bonds between villages and towns in all important spheres of life. It has to be clearly seen that these bonds cannot be regarded merely outside influences on the society and culture of the village. They have been integral parts of the socio-cultural system of peasant civilization which included the rural and urban aspects as its dimensions. Traditional rural urban interaction has been radically different from the process of acculturation which a tribe undergoes as a result of outside influences. While the former is essential to the sustenance of rural culture, the latter is incidental and at times damaging. We have therefore to consider modern influences on rural society in terms of the basic change that the pattern of rural-urban relationships has undergone. Mere assessment of the impact of particular traits won't do. Just as the collection of data regarding the past of a village is no substitute for a broader historical background of the civilization of which the villages are integral parts, so also the study of the rural social change merely in terms of particular influences from outside would not be adequate.

This paper seeks to analyse briefly how the change that the rural-urban nexus has undergone in modern times may account for the patterns of change witnessed in various aspects of rural society and culture. For the sake of convenience the analysis is divided into economic-technological, political-legal, and cultural-ideological factors which are based on the essential dimensions of human action. An attempt has also been made to outline the prospects of a possible synthesis.

ECONOMIC-TECHNOLOGICAL FACTORS

For an adequate evaluation of the impact of modern economic and technological forces on rural society and culture attention must be paid to the changes undergone by the rural-urban nexus. Modern technology is exerting a profound influence on the rural way of life by effecting a basic change in this nexus. Not many factories have so far been established in rural areas ;

nor has agriculture been mechanised to any considerable extent. Yet the institutions and culture in villages have been changing rapidly not only now, but for several decades; and in this the part played by technological and economic factors is by no means negligible.

It is extremely significant that while the growth of industries in countries like U. K., U. S. A., and Japan induced people to give up agriculture in favour of industry, the consequences for rural India has been just the reverse. A look at the Census figures, from 1891 onwards would show that the percentage of total population dependent on agriculture increased from decade to decade.¹ Obviously, the pressure of population on land has been increasing all along. This is one of the results of change in the rural-urban relationship. Before the impact of modern socio-economic forces, Indian villages were marked by a balance between agriculture and industry. The urban centres were content to have from the villages a surplus of agriculture produce chiefly in the form of taxes. There was no compelling inclination on the part of pre-industrial city to sell its goods to the villagers. With the growth of industrialization in U. K. and other European countries, urban centres in India began to turn into supply centres of factory-made goods. Later on, some Indian urban centres also developed industries of their own. For the existence and growth of trade and industry in urban centres a growing demand for these goods in rural areas was vital. It was natural, therefore, that every effort was made by the urban centres to turn rural areas into true colonies. Villages were now expected to supply raw materials and labour to urban centres and provide an ever increasing market for the goods of mass production. Thus a basic change was effected in the economic relationship between urban centres and rural India.

The change in this relationship inevitably meant that the traditional balance between agriculture and industry in villages received a rude shock. The village industries began to decline because of their inability to face the competition from cheap factory-made goods. The policy of the Government also tended to make the competition too hard for the village industries. Consequently a large number of village crafts men had to give up their traditional occupation and to shift to agriculture. Thus the queer phenomenon of "de-industrialization" of Indian villages was only a consequence of the changed economic relationship between village and town. This change resulted into the decline not only of traditional cottage industry but also that of agriculture in villages. It also meant that the occupational structure in rural areas underwent a radical change and many traditional crafts began to languish. This affected not only the economy but also the aesthetic aspect of village life.

Change in the occupational structure of rural India was however not the only consequence of the transformation of rural-urban economic relationship. Another important aspect which is not altogether separable from the former,

was the connection of village economy to the world market. This meant that the village economy began to lose its subsistence character. It became more and more dependent on the world market. Thus the great depression of 1929-1931 broke the backbone of many village households by bringing down the price of agricultural products to an extremely low level. The misery of the farmer is well depicted in a Bundelkhandi folk-song :

The revenue is being collected,
Junahriya now sells at a maund for a rupee.
The Munshi came, the Patwari came,
And came the Tehsildar,
The attachment has begun,
Junahriya now sells at a maund for a rupee.
My *lahanga* has been sold, my shawl has been sold,
The blouse from my body has been sold,
Junahriya now sells at a maund for a rupee.
The turban of my lord has been sold,
The whole house has been put to shame,
Junahriya now sells at a maund for a rupee.²

The weakening of the subsistence character of rural economy cannot but have a profound influence on the whole way of life. The basic motivations of work are different in a traditional subsistence economy from those in an acquisitive, competitive, market economy. In the traditional village economy of India, use and not profit was the directing principle of production. An agriculturist household would usually try to grow in its own fields all types of eatables that it actually needed. It would like, for instance, to grow some sugarcane also to make *gur* for its own consumption. Even when the products were not for the consumption of household itself, they were meant usually for other neighbouring households which were bound with it through traditional *jajamani* bonds. Thus an agriculturist household would get throughout the year the services of traditional service castes and craftsmen, such as the Nai, the Dhobi, the potter, the carpenter and the ironsmith. And these latter in their turn would get a traditionally fixed part of the products of agriculture from the farmer at the time of harvest or during *rites de passage* and calanderic festivals.

The pattern of *jajamani* relationships was certainly based on reciprocity but neither work nor economic decisions were dictated by market forces. The division of labour was predominantly traditional; it was not governed by competition. Similarly, the exchange value or distribution were not determined by market mechanism. They, by and large, followed traditional pattern. The Dhobi would not compete with a Nai, nor would a potter

compete with an ironsmith. The remuneration that they would receive from different households was also determined by traditional criteria. Thus, production for maximizing of profit could not be the chief motive force of traditional rural economy.

The subsistence character of economy had deep implications for the pattern of social relationships and values. Cooperation and contentment rather than competition and desire for unlimited acquisition, marked the rural society. The material products too were characteristically different from the modern articles of mass production. As analysts of modern culture like Herbert Read have pointed out, in case of the latter the emphasis lies on marketability rather than on use and beauty.³ In acquisitive, industrial societies, just as work gets alienated from life so also utility tends to get divorced from aesthetic considerations. In the traditional rural economy however, even the commonest articles of everyday use combined beauty with utility. Moreover, because the craftsmen knew the person who was going to use the thing made by him, he would take special care not to be out of tune with the specific needs of the person and the occasion. For instance, a village cobbler would naturally try to show all his skill if he was making a pair for a bridegroom with whose family his own family had been related for generations. The craftsman usually made a whole object, and thus the nature of his work was very different from that of an ordinary worker in a huge factory. He had the opportunity to be an artist as well as a worker. In traditional societies, as Anand Coomaraswamy and Eric Gill have put it, the artist is not a special kind of man, but every man is a special kind of artist.

The changed urban-rural relationship, however, began to corrode this traditional character of rural economy and culture. With the decline of subsistence economy, money and profit motive are becoming more and more important as determinants of behaviour. The farmer is increasingly conscious of the market. In many areas there is understandably a swing in favour of cash crops. The transactions are more in terms of money. The incursion of machine-made products and modern attractions like cinema, enhance the thirst for cash. The increasing power of money in rural life often makes the villager more susceptible to exploitation by the money lender.

Emigration from rural areas has been a very potent lever of socio-cultural change in recent decades. In India and other developing countries of today emigration from rural areas has certain features of its own. The people who go out of the villages are actually pushed out from them because of dire necessity, rather than being pulled by the attractions of city life. Agriculture in the conditions of rural India is a very hazardous occupation indeed. Failure of crops due to drought or flood is a common event. In such an eventuality the villager is forced to leave the village in search of some employment in a city. Similarly when the debt to the money lender becomes too

heavy or a bullock dies, the villager has to go out in search of money. It is not often that the villager migrates to the city to enjoy urban life. He goes to the city to earn and accumulate some money to put his farm on a sound footing. He wishes to return to the village as early as possible. Even though early return to the village is not practicable in many cases this attitude among the emigrants has deep repercussions on urban as well as rural life. Even while the emigrant lives in an industrial city his outlook remains essentially rural.⁴ He is not motivated to become an integrated part of the urban proletariat. This is responsible for many unwholesome aspects of contemporary urban life in India and is an obstacle in the way of the growth of healthy labour movement.

But the consequences of this migration for rural life and particularly rural social change are no less important. The emigrant usually leaves behind other members of his family such as his wife, minor children and elderly parents. This on the one hand results in an imbalance of sex ratio in urban centres and on the other it leads to many kinds of tension in rural life. Many folk-songs describe pathetically the plight of women whose husbands have gone away to Calcutta or Bombay for employment. When the emigrant is slack in sending money to his village home tension in the family tends to mount. From the Bhojpuri speaking areas (eastern U. P. and western Bihar) this emigration has been going on for a long time. The Report of the United Provinces Banking Enquiry Committee of 1929-1930 says, "Twenty years ago it was commonly said that there was not a single family in Banaras division which had not at least one member in the provinces of Bengal, Assam or Bihar."⁵ The Bhojpuri folk literature provides ample evidence of the anxiety and tensions caused by this emigration. It was in response to these problems that a special type of folk opera, *Bidesia*, developed and became very popular in this area. The emigrant too feels terribly uprooted. A *Biraha* song depicts his feeling thus :

The watching of cows is gone,
The bath in the Ganges is gone,
The gathering under the *pakari* tree is gone,
God has taken away all the three.

The partial nature of emigration makes it even more effective as an instrument of socio-cultural change in rural areas. Since the emigrant leaves behind his family members and himself intends to go back to the village finally, he becomes a living channel of communication between the modern urban centre and his village. His visits to the village are not infrequent. Whenever there is a marriage or some other celebration in the family, he goes to the village. During festivals and holidays also, he likes to visit his home village. Through these visits he knowingly and unknowingly introduces many material and

non-material elements of modern culture in the village. Apart from articles like flash torches and transistors, he brings with him new ideas and attitudes. A man who has lived for many years in an industrial city is not likely to remain too impressed with the local high class and high caste people. He often learns to resist discrimination and injustice through collective action. His ideas tend to spread quickly in the village also due to the prestige acquired by him through travel and stay in the city. If workers went to city for good, with whole of their families, they could never have become so potent factors of social change in rural areas as they are when the nature of migration is predominantly partial.

POLITICAL-LEGAL FACTORS

The new political-legal forces now at work in the Indian countryside are also the result of changed rural-urban nexus. In pre-modern days the villages were undoubtedly connected with the towns in a political sense. They were integral parts of kingdoms and empires which had their seats of government in towns. The villages regularly paid revenue to these governments, and the latter in turn were supposed to protect them from external invasion and internal disorder. In practice, however, the villages were quite independent in the management of their internal affairs. So long as they continued to pay the tax, and there was no violent rebellion, the kings and their representatives showed no eagerness to interfere in their internal affairs. This was the general pattern in ancient times and it continued to prevail during the rule of Pathans and Mughals.

With the advent of the British rule, however, this situation began to change. The British were not satisfied with a portion of rural produce in the form of taxes. They wanted to exploit rural areas as suppliers of cheap raw materials and as markets for their factory products. The old political arrangement could, therefore, not suit them much. At the conscious level they felt an urge to do away with "medieval backwardness". They wished to push forward their judicial ideas and administrative system as far and deep as possible. It is the interest and inclination to bring about transformation in rural life, rather than the mere possibility of contact through modern means of transport and communication, that were really responsible for introducing basic changes in political-legal as well as economic spheres. In contrast to the earlier rulers, the British rulers did not accept the authority of village and caste panchayats. Otherwise also the form and content of the new legal system imposed by the British militated against the traditional functionaries and their power to inflict punishment. The rural people found the British administrative and legal system a force which had to be accepted as such, irrespective of their own opinions about its good or bad features. In due course the traditional organs of resolving conflict became too weak. What is more,

the villagers seem to have lost faith in their capacity of self-government. A survey recently carried out⁶ in rural areas of Rajasthan and eastern U. P. indicates that a high percentage of villagers in both these regions strongly felt that the State Government must exercise more strict control over the working of village Panchayats. Of course, the Panchayats in question are not the traditional ones but those introduced by the initiative of various state governments after independence. The spirit of dependence in political and administrative matters now prevailing in rural India is, nevertheless significant. This is in sharp contrast to the traditional self government of villages and castes in pre-British time.

Perhaps the most potent ferment which the British rule introduced in rural India was the creation of private property in land. There is some controversy regarding the nature of land ownership in India in pre-British times. While Sir Henry Maine, Karl Marx, Dr. Radhakamal Mukerjee, and more recently Professor Ramkrishna Mukerjee⁷ have held that land was communally owned by the traditional Indian village community, other scholars like A. S. Altekar do not subscribe to this view. Whatever be the actual ownership pattern, there can hardly be any doubt that in pre-British times land was not a commodity freely sold and purchased in the market. It were the British who turned land into an ordinary commodity. Infact, some early British officers recorded this as an achievement of their civilizing mission.

The creation of private ownership in land means that the traditional socio-economic hierarchy in a village can be threatened by any individual or group which has sufficient money to purchase land. F.G. Bailey, in an interesting study⁸ of social change in a village in Orissa has shown how an untouchable caste of liquor-sellers succeeded in raising its status considerably through the gains made in drink trade. It is also remarkable that the wind-fall profits made by this untouchable caste emanated primarily from the prohibition measures introduced by the government. The evidence furnished by Bailey indicates that it is usually governmental measures which make windfall profits possible and thus pave the way for changes in the socio-economic hierarchy of the village. It is also significant that Bailey regards extension of economic frontier as the chief source of change in the hierarchical structure of a village. These findings seem to underline further the need of scrutinising the changes in the rural-urban nexus.

For the last three decades or so, the administration is coming closer and closer to the villager for diverse reasons. The Second World War made the average villager familiar with administration through such measures as control and rationing. After independence various development programmes have taken administration almost to the doorsteps of the villager. Bringing about change in rural institutions and culture is the avowed objective of many of these programmes. It is not necessary to give here a detailed evaluation of

the success of these programmes. It must be noted, however, that the effect of these programmes never remains confined to the aspects selected for change or the direction in which change is sought to be introduced. There are many non-intended effects of programmes of induced social change. It is not impossible, for instance, that the establishment of an agricultural extension centre may lead more to adoption of modern dress and cosmetics than to that of modern techniques of agriculture.

In combination with the existing elements and processes in rural areas new social forces and movements often give rise to tendencies which are hardly intended. The most important case in point is that of the elections. Elections appear to be a normal feature of democratic life and their introduction could perhaps be expected to enrich democratic spirit. The introduction of elections, however, seems to have considerably enhanced the feelings of casteism and factionalism. Caste is based on the principle of ascription and thus it appears to be essentially opposed to democracy, which is more in tune with the principle of achievement. Yet on a superficial view, practice of democracy seems to have strengthened caste. A deeper analysis would, however, show that casteism is not the same thing as the caste system. In some ways the two are antagonistic. In the caste system the principle of hierarchy is universally accepted. Those on the lower rungs can in no way compete with those on the higher rungs. They belong to different levels and therefore the question of competition between them does not arise. Experience also shows that so long as the caste system was perfectly intact, persons belonging to the lower castes guarded the hierarchical principles of caste as zealously as those who belonged to the higher castes. With the ideas of equality and competition gaining ground the faith in ascribed hierarchy lost its hold. Consequently, castes began to be employed as pressure groups. Casteism thus is a compound produced by the interaction of caste system with modern ingredients of democracy and competition. It has some characteristics which are found in neither of the sets of components. Many new compounds of this nature are likely to emerge in the present state of interaction of modern forces with traditional rural institutions and values.

CULTURAL-IDEOLOGICAL FACTORS

In the cultural-ideological aspect also the key to the nature of social change in rural areas seems to be provided by the changed nature of rural urban relationship.⁹ As mentioned above, in pre-modern times the culture in the non-industrial urban centres was based on fundamentally the same assumptions and values as those on which the rural culture was based. Whatever differences existed were those of degrees of refinement and articulation. The two streams of culture could therefore co-exist without impairing each other. After the British impact, however, the culture and ideas in towns began to be

transformed. A new worldview based essentially on Western ideas of individualism, competition, and activism began to gain ground in urban centres. This worldview appears to be essentially opposed to the traditional worldview prevailing in rural areas. Naturally, as these ideas make intrusion in the village through modern type of education and modern means of communication, the very existence of the culture of the folk appears to be threatened. It will be noted that change is not a result of establishing contacts between rural and urban cultures for the first time. The contacts already existed, and perhaps on a deeper level than now. The difference lies in the changed nature of cultural ties.

With the spread of modern formal education in rural areas, the old balance of power in community, as well as in family, seems to be threatened. Formerly, almost all knowledge in the villages was derived through informal communication and personal experience. It was natural, therefore, to consider the older people as more knowledgeable. With the introduction of new sources of knowledge like books and newspapers, the greater knowledgeability of elders cannot remain unchallenged. In fact not unoften, the deviants from traditional norms are found to be more competent to tackle a new situation.¹⁰ Thus in many ways new cultural and ideological elements seem to be threatening the very existence of traditional rural culture.

POSSIBILITY OF A NEW SYNTHESIS

It is very interesting to note, however, that the peculiar circumstances of modernisation of traditional cultures of countries like India in the middle of the 20th century, may open up unforeseen possibilities of a synthesis between the traditional and the modern. A close look at the nature of contemporary social change in India and other newly developing countries would indicate the existence of such a possibility,¹¹ though it cannot be denied that a number of opposing forces are also at work and they may prove too strong for the emergence of such synthesis.

The feature of contemporary social change in India that strikes one first of all, is its fast pace. In fact this may be the basic characteristic out of which all of its other distinctive features and possibilities emerge. Countries like India had their renaissance and reformation, their industrial revolution and experiments with democracy and socio-economic planning—all in the span of one century. Movements in the areas of arts and literature have similarly been compressed. Naturally, there is a lot of overlapping. Before one era or movement has exhausted its possibilities and vanished, a number of successive forms enter the stage.

This situation may have interesting implications for the future of folk-culture. In the presence of certain economic-technological, legal-political, and ideological-symbolic factors that have come into being by the middle of

the 20th century, the folk culture may be able to develop in such a way that its survival is not threatened. The technological, economic and ideological forces that existed in Europe in the early phase of industrialization (approximately between the last part of the 18th century and the close of the 19th century) threatened the folk way of life and thought more seriously than the corresponding forces that exist now.¹²

The technology of the earlier phase was marked by the large size of machines and the utter neglect of aesthetic considerations both in the make up of machines and that of their products. Utility and cheapness were the watch words. Considerations of beauty were looked upon with disdain. The folk craftsman whose products displayed a balance between aesthetic and utilitarian aspects was considered backward. In this era¹³ coal was the chief source of power. Transport of coal is too cumbersome and costly. Industries, therefore, concentrated around coal mines. There was little possibility of their dispersal. To provide adequate labour force to the industries it was imperative to disrupt settled life in folk communities. The accent on low cost and marketability of products at the expense of quality and beauty made it impossible for the folk craftsman to carry on his trade.

Today, we are in a different technological era.¹⁴ The large size of machine is no more considered in itself a virtue. The trend is towards the reduction in its size. Small and portable but efficient machines are coming to the fore. New sources of power, petroleum and electricity, have made the dispersal of industry a practicable proposition. If electricity is carried to villages and small and medium size industries are set up in the country-side, it is not necessary to disrupt settled community life.

In the areas of economy, politics and ideology, forces are developing which may provide support to the folk mode of life. In the 18th and 19th centuries ideas of individualism, competition and activism had reached the peak of their influence. These ideas were clearly antagonistic to folk values of corporate life, security and contentment. The elite during the first phase of the modern era was definitely harsh towards the folk norms and mentality. It was proud of its rationalism and efficiency, and looked down upon the folk as superstitious and lazy.

Today, these ideas have considerably mellowed down. The limitations of rationalism are widely recognized. Numerous ideological movements emphasise the value of cooperation and security. This is not to say that modern elite is going back to values of the folk communities. They, however, do not harbour the self-righteous indignation which impelled their predecessors to combat and suppress traditional rural culture. Under these changed material and ideological circumstances, it is not impossible that folk forms may find certain avenues of survival and growth. Of course, they cannot hope to continue in the same form as they have been traditionally.

NOTES AND REFERENCES

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2. Devendra Satyarthi, *Dharti Gati Hai*, Delhi, 1948, Rajkamal Prakashan, p. 112.
3. Herbert Read, *To Hell with Culture*, London, 1941, Kegan Paul; *Art and Society*, London, 1936.
4. This is well demonstrated by the doctoral research work recently completed by Dr. Basant Dube, under my supervision. He found that all his respondents (emigrants from rural areas of eastern U. P.) were keen to go back to their villages. When he enquired about their low standard of living in Kanpur, even when their wages were not so low, they repeatedly said, "We have come here to earn, not to live". Basant Dube, "Emigrants from Eastern U. P. Working as Factory Labourers in Kanpur", Ph. D. Dissertation, Gorakhpur University, 1965.
5. *Report of the United Provinces Banking Enquiry Committee, 1929-30*, Vol. I, p. 30.
6. The survey was conducted under the direction of Indra Deva, for the research project on *Assessing the Degree and Depth of Acceptance of the System of Law in India in Terms of (I) Awareness, (II) Value Compatibility, and (III) Patterns of Adaptation*, sponsored by the Indian Law Institute, New Delhi, 1966-67, pp. 169ff.
7. Ramkrishna Mukherjee, *Dynamics of a Rural Society*, Berlin, 1957, Akademie-Verlage.
8. F. G. Bailey, *Caste and the Economic Frontier*, Oxford University Press, 1958.
9. This idea is adumbrated in a paper which appeared more than a decade ago. Cf. Indra Deva, "Modern Social Forces in Indian Folk-songs", *Diogenes* (organ of the International Council for Philosophy and Humanistic Studies, Paris), No. 15, 1956.
10. A very interesting illustration is provided by the short story "Panch-Light" by Phani-shwer Nath Renu, in *Thumri*, Delhi, 1967 (reprint), Rajkamal Prakashan, pp. 83-88.
11. Cf. Indra Deva, "Une Hypothese Sur L' evolution Sociale", *Diogenes*, Paris, No. 56, October-December 1966, pp. 82-101.
12. How far folk culture and folklore in Asian countries can continue to survive by striking a new balance with the contemporary socio-economic forces, has been analysed in some detail by Indra Deva in "Social Change in Asia and its Impact on Folk Culture and Folklore", *First Asian Folklore Conference*, Indiana, Bloomington, 1966.
13. Lewis Mumford calls this era, the "paleotechnic" era. This phase according to him extends roughly from the middle of the eighteenth century to the close of the nineteenth century. Cf. Lewis Mumford, *Technics and Civilization*, London, 1947, George Routledge & Sons.
14. Mumford has designated this era as the "neotechnic" phase. Lewis Mumford, *op. cit.*

H. R. GHOSAL

Our Rural Society in a Changing Environment

IN a country where the great bulk of the population lives in villages, and directly depends for subsistence on agriculture, the social pattern that has been built through the ages round the ownership of land is bound to survive in spirit and in substance despite sweeping changes introduced by recent legislation. During the century and a half preceding independence, the rural society in India had taken on a shape which was admittedly feudal in character. This was especially true of the Indian states. But even in British India, as distinguished from 'Indian India', the *zamīndārs*, *jāgīrdārs* and *ta'luqdārs* behaved as feudal lords and often exacted payments or services (apart from rents and cesses) from the tenants which were of the nature of feudal levies or services. Bankim Chandra Chatterji has in his *Krishnakanter Will* drawn the picture of a typical nineteenth century *zamīndār* of the permanently settled province of Bengal. Krishnakanta's remark about himself: "I am the Judge, I am the Magistrate" is not a fool's self-bragging, but a candid confession of what most *zamīndārs* felt about themselves. The picture will be clearer to us if we turn our eyes to Paran Mandal, the typical Bengal *ryot* of the time, sketched by the writer in one of his essays. Bankim Chandra's Paran Mandal, exposed on the one hand to the demands of the *zamīndār* and on the other to the rapacity of the money-lender can afford but one square meal a day which he takes at 3 o'clock in the afternoon, and which consists of the coarsest boiled rice. By day he is a victim of human vultures, the *naib*, the *karkun*, the *gumāshṭa*, the peons; by night he is a prey to deadly mosquitoes. Life for him is a dreadful drudgery.

There is little doubt that the institution and growth of hereditary land-

lordship, whatever may be the views of R. C. Dutt, was not conducive to the interests of the cultivating class. Among other things, it prevented the rise and development of a bold, independent yeomanry capable of exerting themselves confidently to enhance and improve production. Moreover, the *Haftam* and *Panjam* regulations, which followed in the wake of the Permanent Settlement in Bengal, gave the *zamīndārs* undue power over their tenants. Another important factor which contributed to the economic misery and helplessness of the *ryots* in Bengal and Bihar was the great growth of indigo plantation with all its attendant evils. Though the Rent Acts of 1859 and the implementation of the Indigo Commission's Report (1860) improved their position somewhat, it cannot be said that there was a marked change in their status and condition. Regarding the cultivators of Bihar in general, the Hon'ble Ashley Eden remarked at a later date that they were a most wretched and indigent class in human experience. It does not mean that the *ryots* outside the permanently settled territories were better off. The fact is that throughout India, the majority of the cultivators were stricken with poverty and constituted an oppressed class.

In the nineteenth century our society was dominantly landminded. Bestowing hereditary proprietary rights in the soil to the *zamīndārs* and *jāgīrdārs* was partly responsible for it. But it appears to have been due largely to the lack of opportunities to invest capital in industry. Indian capitalists are accused of having been shy of investing outside the agrarian sector. The fact is that they were unable to do so to an appreciable degree owing to their inability to face the unfair European competition. Whatever it was, the outlook of the higher and rising middle classes was for the most part rigid, conservative and agrarian. This was more so in Bengal, where the Permanent Settlement was in operation, than in the *ryotwari* tracts of the Bombay Presidency.

The colossal decline of the Indian cottage industries in the nineteenth century—an impact of the Industrial Revolution in the West—also went a great way to make our society what it ultimately became. It was responsible for appalling unemployment, devastating deaths, growing mendicancy and decay of numerous villages. The old industrial places were so many nerve-centres which sustained a considerable part of the country's rural population. With the abrupt decline of such centres, a deadly blight fell on the surrounding villages. The most striking example is afforded by Dacca, which by 1825 was a mere shadow of what it had been. The cotton textile industry was the first to succumb to the mighty blow dealt at our old economy by the mechanical revolution. In 1832 Lord William Bentick painfully observed: "Cotton piece-goods, for so many ages the staple manufacture of India seem thus for ever lost. The sympathy of the Court is deeply excited by the report of the Board of Trade exhibiting the gloomy picture of the effects of a com-

mercial revolution productive of so much present suffering to numerous classes in India, and hardly to be paralleled in the history of commerce". The same fate befell the other cottage industries afterwards with similar results on a lesser scale. The last to suffer catastrophic declension was the Bengal silk manufacturing industry, which fell at the beginning of the present century. Indeed the advancement of science and technology in the West was the bane of India's economy. Had the pace of industrialization in India been quick and on a considerable scale, as in England, the disruption caused by the fall of the old industries would not have been so tragic as it was. While our old economy was maimed, the western pattern of industrialization, which was initiated in the middle of the last century, proved far too inadequate for the vast country.

Before independence forces tending towards the break-up of the existing pattern of our rural economy had begun to work once again, but in a different way. During and immediately after the Second World War, the idea gained ground that the surplus agricultural product should be converted into capital for investment in industries. Chiefly with a view to this the Congress even before independence, appointed a Planning Commission; and the Congress Agrarian Reforms Committee was constituted later. A major recommendation of the Committee was abolition of exploitation of one class by another. This was too high-sounding an objective. However, the first significant step towards it was taken in the early fifties. Legislation followed in the shape of the U. P. Zamindari Abolition and Land Reforms Act of 1950, the Bihar Land Reforms Act of the same year, the Rajasthan Land Reform and Resumption of Jagir Act of 1952, the West Bengal Estate Acquisition Act of 1953, the West Bengal Land Reforms Act of 1955, the Punjab Security of Tenures Act of 1953, etc. Most of these measures were sought, in the first instance, to do away with intermediaries like *zamīndārs* and *jāgīrdārs*. In most states in Rajasthan, the *jāgīrdārī* system had prevailed to an enormous extent. Over eighty percent of the land in Jodhpur, for instance, had belonged to the *jāgīrdārs*. The Rajasthan Land Reform and Resumption of Jagir Act, amended in 1954, provided that all rights and titles of the *jāgīrdārs* should vest in the state. The *jāgīrdārī* system was abolished also in certain other states where it had long been in vogue, such as in Hyderabad. There *jāgīrs* were taken over after the passing of Jagir Abolition Regulation in 1949.

By the above legislative measures intermediaries were swept away wherever they had existed, and direct relations between the tenants and the state were established everywhere. The change, though apparently revolutionary in character, did not immediately bring about a marked improvement in the economic status of the rank and file of the cultivating class. In many places, the former landlords retained their position as big cultivators and con-

tinued to wield much the same influence as before in their localities, though numbers of them moved to the towns, and invested their capital in industries, contracts and electioneering. Nevertheless it will be wrong to assume that there was no improvement at all. Under the amendments carried out in the U. P. Zamindari and Land Reforms Act between 1952 and 1958, most of the former intermediaries became *Bhumidars* enjoying proprietary rights as peasants. But a section of the former peasants did succeed in purchasing proprietary rights. With all that the majority of the tilling class remained landless or, at any rate, without any security of tenure, the *Bhumidars* enjoying full proprietary rights over their private holdings, and practically no land being available for distribution to the landless. This was also the case in Bihar. There, some relief was doubtless given to the occupancy *ryot* by rent commutation and certain other measures. But the Congress government's agrarian legislation in that state was rather pro-landlord in character. This and the non-fixation of a ceiling on land in Bihar to a great extent defeated the very purpose behind land reform. In West Bengal, indeed, the Land Reforms Act of 1955 fixed a ceiling on all land at 25 acres. Homesteads, orchards and plantations, however, did not come under the operation of this Act, and former intermediaries were allowed 20 acres of non-agricultural land each. Moreover, the ceiling was imposed not on the entire property of a family, but on individuals. Ample scope was therefore left for retaining large properties in the hands of a family and thereby nullifying the very object of the Act. The Act formulated certain principles for the distribution of land which was expected to be made available through the imposition of the ceiling. Actually very little land was available, and the provision of the Act remained more a pious wish than a concrete achievement.

Without perplexing the present essay with further details on this point, it may be said that except for the fact that post-independence legislation made an end of the *zamindars* and *jagirdars* as partners with, or agents of, the state for the realisation of the land revenue, there has been no basic alteration in the pattern of our rural society. Indeed it is difficult to avoid the conclusion arrived at by Professor Baljit Singh that 'the land reforms have obviously not brought about any institutional change in the structure of cultivation'. On the other hand, it is striking that capitalist farming has gained a momentum since independence, and particularly after the introduction of the land reforms. Under the old mode of production it had been the usual practice to lease out lands to tenants. But it had failed to provide the necessary incentive to production. Under the new mode hired labourers have been employed by the owners for cultivating their lands in preference to the practice of leasing. In other words, the owners have found it profitable to keep lands under their personal cultivation and supervision. Modern technological facilities, such as the use of tractors, and the increasing opportunities

of irrigation have given an encouragement to this process. It may be seen that in most parts of India self-operated cultivation with the aid of hired labour has for the most part displaced the custom of leasing out. In Gujarat, which is one of the most productive regions of India, in respect of the cultivation of such cash crops as cotton and tobacco, it may be found that the farm-owners have made adequate use of well irrigation and pumping machines wherever required. No wonder that in canal irrigated areas the progress of self-cultivation should be quicker still.

The ultimate effect of the rapid growth of capitalist farming is bound to be revolutionary in the sense that mechanized cultivation will require fewer hands than the primitive method of tilling. It will produce somewhat the same effect in agriculture as the introduction of factories and machines have had on cottage industries. Already this change is visibly at work. It has made the landless labourers go in largely for urban employment, even for urban habitation. The increased scope for factory employment in the post-independence era has materially helped the exodus to the towns. But this process cannot yet be said to be quite rapid. And that is because the Indian rural population is still dominantly conservative and home-sick. To give an example, quite a good proportion of the village folk of Saran district in Bihar go out to the industrial areas of West Bengal for work, and a considerable part of their surplus income is often invested in land. In five to seven years' time many landless labourers have turned out small peasants, and they hope for larger purchases in future. On the other hand, instances are not uncommon of labourers from Saran, Muzaffarpur, Shahabad, Monghyr and other districts of Bihar starting as coolies in the tea-gardens and eventually settling down to some trades. Many such families may be found in Siliguri, Cooch Behar and the northern and central districts of Assam. But even in their new homes they have not neglected to purchase cultivable lands. The point is that the outlook of the bulk of the rural population in India is still land-minded which is no surprise if we remember that the country is yet predominantly agricultural.

The growing contact with urban life has quite naturally affected the rural population. Among other things, it has enhanced their appetite for wealth and made them restless. The desire to improve their economic status and the operation of political forces have made them conscious about themselves and injected a belief in the majority that they have for ages suffered exploitation at the hands of the upper ranks of the society. This class-consciousness has indirectly encouraged the disintegration of the rural society. Although occupation based on a caste bias is still the order of the day, time is not far off when it will be relegated to the background, if not disappear altogether. The wide spread of education among the lower classes since the late 'thirties' and especially after independence, has created a distaste among

them for their hereditary avocations which in the long run is likely to disrupt the social structure, while it has already disturbed the even tenor of life in the villages as well as in the towns.

Broadly, our rural society consisted till lately of three classes, namely, the landed aristocracy, the peasantry and the landless labourers. Within each class, of course, there were sub-classes according to differences in their economic conditions. For example, some of the land-owning peasants enjoyed a better economic status than many small *zamīndārs*. Again, not all landless labourers were equally miserable. Those that could supplement their income from outside were in many instances better off than petty little peasants. The position now is somewhat altered. It should be noted that it is altered somewhat only, and not profoundly. The *zamīndārs*, *jāgīrdārs* and *ta'luqdārs* are gone. But the three-fold division still remains. At the top now are the capitalist farmers or big peasants as we choose to call them; at the bottom are the landless labourers; and in between are the ordinary peasants. We do not, in this class structure, include the mendicants and beggars who have always formed a certain proportion of the Indian population. The capitalist farmers may be called the rural counterpart of the mill-owners and other big businessmen of the towns, with this difference that the opportunity of profit-making in agriculture is comparatively limited.

After independence the conception of a 'socialistic pattern of society' has frequently been emphasized by our political leaders. Those who talk of it are perhaps not quite clear in their minds as to its exact meaning. In the broadest outline, in such a society there will be the minimum of inequalities and privileges, whether on the economic or sociological plane. That being so, there is a general agreement that land must be distributed among the land-hungry. So far, as we have already stated, attempts in this direction have not succeeded well enough in spite of the enforcement of land ceiling in some states. Vinoba Bhave's *Bhoodan* movement, too, has failed to make much headway. The result is that a very large percentage of India's rural population is sunk in abject poverty, and will continue to be so for years to come. Besides those that are literally landless, the number of families owning just an acre or so of land is very large indeed. If there are four able-bodied male adults in a family, two of them must of necessity go out into the towns for work, sometimes far away from their villages. Basically, therefore, Indian society, looked at from the economic stand-point, has not changed much. On the top of everything, the unusually exorbitant rise of prices has hit the poor very hard.

The emergence of a new educated class in the villages is a striking feature of recent times. By that we mean that within the last thirty years or so, there has been a phenomenal expansion of education, that is, of the modern type of education as distinguished from classical learning. This new educated

class includes persons from all the three classes noticed above. They do not form a separate unit economically or otherwise. Nevertheless, they are important because they are most susceptible to modern forces and influences, and also because it is through them that new ideas percolate to the masses. Not all of them can be employed either in the public or private sector. Some of them take to independent professions or business some find work as contractors or sub-contractors, and some succeed in getting into the public services. When all possible avenues of employment have been exhausted, a good percentage of educated youngmen remain workless; and for them 'back to the villages' is the only course left. The mounting unemployment among the youth has already created a problem for the society. Already in some states the unemployment figures have reached almost a staggering height. The range of occupational possibilities being limited, the situation worsens from year to year.

Basically the social structure remains what it was in the nineteenth century or the early years of the present century, though symptoms of breakdown are, well marked. Our society is strongly caste-ridden even to-day. Caste conflict, especially a rift between the upper and lower castes, is pronounced in the south, and by no means absent in the north. The caste bias is naturally stronger in the villages than in the towns. Marriages outside the caste, or even the sub-caste, though not unknown, are certainly frowned upon. The continuation of the caste system is no doubt a perpetuation of inequality in a society striving to be privilege-free and modern in the Western sense. There is, however, hardly any society in the world which is privilege-free. Looked at from this standpoint, the continuation of caste is perhaps not so potent an evil as it is often supposed to be. What really counts in a society where money is the chief determining factor is whether economic privileges have been minimized or not. The higher caste's inborn contempt for the lower castes, particularly for the untouchables, in the past—a survival of the Vedic Aryans' habit of scoffing at the non-Aryans—was partly due to the latter's indigence. Now that they are coming up on the economic ladder, there is much less bias against them. And a day will come when the higher caste Hindus will give the depressed classes the same status which their ancestors gave to the Sakas, Yuchchis, Hunas and Gurjaras in course of time.

This has slowly been under way for some years. The unsophisticated village elders clinging to time-honoured customs may not relish it; but they have to tolerate it. Before their very eyes a new generation is emerging which, in its attitude and outlook, is different from theirs—a generation agnostic but liberal, revolutionary rather than conservative. In other words, our society is tending towards flexibility; and a certain amount of flexibility is necessary for the functioning of all social systems. Diverse forces have

been working, for example, for the break-up of the joint family system. The abolition of *zamīndāri* rights, the imposition of the land ceiling, the exodus to the towns, the spread of education—all have contributed directly or indirectly to this change. Property division is in many instances now not a question of choice, but something forced by the land-reforms. The old regard for traditional institutions has not died out; it is in the process of decline. The desire to move along the long-beaten track is still quite strong in the villages. But urban influences are equally strong on the young generation. Moreover, religion has to a large extent lost its grip on the society. In the older days religious differences counted for a great deal, and sectarian prejudices were powerful. Now also religious clashes, such as between Hindus and Muslims, do occur at times. But it is more an outburst of fanatical fury than anything else. Politics has slowly but surely been taking the place of religion, and ideological differences are becoming pronounced. Members belonging to same family sometimes are affiliated to different political parties or, at any rate, have different party prejudices and partialities. The general run of people, however, are as yet unattached to politics; and this is especially true of the village folk. The inference may be drawn from observations of concrete behaviour that political interest can be roused in the Indian masses during General Elections, elections to the village *panchāyats* and such other occasions. On such occasions the Indian social order is temporarily affected. But the tempo dies down in a short while, and the characteristic social behaviour asserts itself.

But political conflicts between one group and another or between two or more parties accentuate to some extent the social cleavage inherent in the people on account of economic differences and caste distinctions. Political parties themselves go a great way to exploit popular sentiments in their own interests. During the last forty to fifty years men in the lowest grade have been continually reminded of their wretched lot, which they had accepted as something ordained. The result is that they have manifested a spirit of revolt against the higher castes or upper classes. Though the idea of a secular state embodied in the very Constitution of India does not yet find ready acceptance in the country, the common belief that in the name of religion one section of the people has long been exploited by another is there. In the villages men are politically less conscious than in the towns, but they are certainly not immune from urban influences. Normally rural behaviour is sober, though not always polished. Yet those of our rural folk who are in close contact with urban life and ways sometimes excel the town people in showing a contemptuous disregard of conventional standards.

Nevertheless, the perpetual unrest which has become a normal feature of the urban workers life to-day does not find an exact parallel in our rural economy. There have been agrarian movements in the country in the past.

But a strong movement presupposes a strong, well-knit and wide-spread organization. What is lacking in our agricultural folk is not the desire for betterment, but their too much dependence on the government. The landless class wants the initiative in all things to be taken by the state. The Indian masses, especially those of the villages, have not yet been able to shake off fully their traditional fatalism and inertia. Occasionally they are roused into action, but by fits and starts than in a sustained way. As for the small peasants, they have not yet quite appreciated the value of cooperative efforts in agriculture. The cooperative movement in India is now almost half-a-century-old. Yet it cannot be said it has progressed well. Whatever has been achieved in this field is state-initiated and state-sponsored, rather than the result of voluntary private action.

The overall picture that we have of our present rural society is depressing. The abject dependence on nature, the frequency of floods and scarcities, the growth of the population at a terrific speed, improper education and training, the limited capacity for work and indifference to improvement are obstacles to an immediate rise in prosperity in general. There has undoubtedly been, since independence, a perceptible elevation in the standards of living in the villages as indeed in the cities and towns. But great differences of wealth, power and social prestige persist to this day. These differences are often looked upon more as individual differences than as class differences. However, class awareness does exist; and forces are working on the rural plane which are eventually likely to lead to the existence of two classes instead of three—the upper and the lower. A neo-feudal society based primarily on economic differentiation is slowly in the process of emergence. As yet there is not much convincing evidence that the middle and working classes in the villages have developed a systematic conception of belonging to a definite class set against an opposing class. But it cannot be said to be entirely absent. And the upper class by its action is almost sure to contribute indirectly to such a development. Meanwhile the three-angular class struggle will, it appears, continue for sometime.

BELA DATTA GUPTA

Urbanisation in Bengal and Changing Rural-Urban Interaction Pattern

TODAY, hardly any other subject is more engaging and more interesting than that of urbanisation. All over the world the process of urbanisation is manifest and the rapid and accelerated increase of the urban population today has made many a man wary. It is not unusual even to hear something like "The urban crises" in the backdrop of modern urbanisation process. In California, U. S. A., one speaks about the SLURBS—the sloppy, sleazy sloverly slipshod semi-cities. In the developed as well as in the developing countries, problems appear in the social, physical and economic field and also in the field of public administration. The problems of urbanisation do not remain confined and limited to the urbanised and urbanising areas alone. They affect rural areas too and rural-urban interaction pattern leads to a new pattern in the rural life. It is proposed, in this paper, to make an attempt at the study of the development of urbanisation in Bengal during the intercensal period and to assess the rural-urban interaction pattern consequent upon urbanisation.

Like "Population Explosion", "Urban Explosion" is also a subject to be countered with by sociologists, demographers, economists and town planners in India. In *The Statistical Summary of the Social and Economic Trends in India (In the inter-war periods)*, Government of India Publication, 1945, S. Subramanian pithily remarked, "It is not generally realised that although India has for long been called a land of villages, the fact is that a silent but a steady process of urbanisation has been going on in the country during the last twenty or twenty-five years and the pace of urbanisation has been particularly rapid during the thirties". The decennial rate of increase of urban population has been still higher since.

By definition, urbanisation means the emergence of centres of concentrated populations and the process of urbanisation means an increase in the proportion of such population to the total population both by way of increase in the number of urban centres and increase in the size of those centres. This implies that there is a movement of people from rural to urban places of residence and also the movement of the people from agricultural to non-agricultural work. The process of urbanisation thus involves a geographical or territorial shift. And Kingsley Davis is of opinion that this territorial shift is the most crucial factor in urbanisation. According to him about 60 per cent of the population of a country must move from the countryside to the cities and, if rapid economic development is to be achieved, the territorial shift must also take place rapidly.¹ In India, urbanisation and territorial shift have gone together. Among the reasons for this shift one may posit importance on (a) a general economic denudation of the rural population consequent upon an increase in the number of landless peasants, (b) industrialisation, which tends to produce large aggregations, (c) the attractiveness of the city life to the middle class people, and (d) the availability of the best education only in towns. To these more points might be added, for example, general insanitary conditions in the rural areas and lack of availability of proper medication. The Burdwan Fever menace in the early part of the century still haunts many a memory.

Growth of urban centres and geographical shifts are not enough. Urbanisation gives rise to 'urbanism as a way of life'. People may become urbanised in their thinking and behaviour although they may not move to a town or city. They may become urbanised and not change from agricultural work to industrial work. Or they may become part-time farmers, although behaving and thinking like city people. Thus, urbanisation is much more than simply the growth of cities, although such growth is definitely part of the process. It leads to a major change in the social institutions and central values of a society. Urbanisation, it has been remarked, tantamounts to social revolution, so widespread, deep and lasting are its consequences.

In spite of the development of urbanisation in India since the thirties of the century, a comparative study of urbanisation in India with other countries of the world presents, however, none-too-bright a picture. Comparative analysis of urbanisation in India, the U. S. A., England and Wales and Japan have revealed that India was far behind the U. S. A. in 1951 than she was in 1901. In the U. S. A. the number of urban places increased from 33 in 1880 to 4741 in 1950 and the percentage of urban population to total population increased from 6 in 1880 to 59 in 1950. Similarly, the rate of urbanisation in India was lagging behind that of England and Wales, where the rate nearly approximated that of the U. S. A. In England and Wales, the number of urban places having more than 50,000 people was only 37 in 1871 but the number

increased to 157 in 1941. During the same period the percentage of population living in such urban places to total population increased from 36.5 to 52.6. The official Hand Book of Britain 1964 has it that entire population in the United Kingdom is now predominantly urban. In comparison to Japan, which shows the fastest growth rate, India's slow pace becomes even more marked.

Rural-Urban Ratio in India and Japan

India			Japan		
Year	% of population		Year	% of population	
	Rural	Urban		Rural	Urban
1901	90.2	9.8			
1911	90.6	9.4			
1921	88.7	11.3	1920	81.9	18.1
1931	87.9	12.1	1930	75.9	24.1
1941	86.1	13.9	1940	62.1	37.9
1951	82.7	17.3	1950	46.5	53.5
1961	82.0	18.0	1955	43.7	56.3

Not only has the All-India estimate in urbanisation been low in international comparison (even a small country like Puerto Rico showed a figure 25.8% in her urbanisation in 1940), the inter-State differential in urbanisation in India has also been very significant. The reasons for this difference have been many. It does not necessarily depend on the rate of industrialisation or the level of economic development. More often it reflects cultural tradition and old settlement patterns, or natural, including climatic difference among the States.

Urban and Rural Population by States (1961)²

States of the Union	Population in million			Proportion of urban to total population %
	Total	Rural	Urban	
Union Territories	7.9	4.6	2.7	34.2
Maharashtra	39.6	28.4	11.2	28.2
Madras	33.7	24.7	9.0	26.7
Gujarat	20.6	15.3	5.3	25.8
West Bengal	34.9	26.4	8.5	24.5
Mysore	23.6	18.3	5.3	22.3
Punjab	20.3	16.2	4.1	20.1
Andhra Pradesh	26.0	29.7	6.3	17.4
Jammu & Kashmir	3.6	3.0	0.6	16.7
Rajasthan	20.2	16.9	3.3	16.3
Kerala	16.9	14.3	2.6	15.1
Madhya Pradesh	32.4	27.8	4.6	14.3
Uttar Pradesh	73.7	64.2	9.5	12.9
Bihar	46.5	42.6	3.9	8.4
Assam	11.9	11.0	0.9	7.7
Orissa	17.6	16.5	1.1	6.3
India	439.2	359.8	78.8	18.0
West Bengal excluding Calcutta Metropolitan District	28.4	25.8	2.6	9.3

From the above table it appears that the pace of urbanisation in Bengal has been much quicker than in the adjoining areas of Bihar, Orissa and Assam. Even when the Calcutta Metropolitan district is excluded, Bengal has a better urbanisation development than the three regions mentioned. The reason for this better response to urbanisation process in Bengal is to be sought in her socio-economic history. Some of the highlights of the economic development are establishment of the first cotton mill at Fort Gloster (Howrah) in 1818, opening of the first power driven jute mill at Rishra in 1859, the first railway line in the country connecting Howrah with Raniganj coal fields in 1852, the first machine made paper at Titagarh in 1870, and the first large scale iron works (Bengal Iron & Steel Co.) in 1875. That economic opportunities afforded by the modern economic life constitute the main attraction drawing

migrants to the cities is well borne out by the table below :

Growth of Cities 1921-1931, According to Occupational Composition in 1931

Occupational Composition 1931	Number of cities	% growth 1921-1941 (unweighted average)	% growth 1921-1941 (weighted average)
A INDUSTRIES ONLY	34		
I. Cities with more than 40% of all workers in industry	16	74.7	60.8
II. Cities with 30-39% of all workers in industry	9	64.4	79.8
III. Cities with less than 30% of all workers in industry	9	55.6	75.8
B INDUSTRY TRADE AND TRANSPORT COMBINED	87		
I. Cities with 70% or more of all workers in these occupations	15	83.8	65.0
II. Cities with 60-69% of all workers in these occupations	28	58.2	67.4
III. Cities with 50-59% workers in these occu- pations	27	48.5	66.6
IV. Cities with 50% or less of all workers in these occupations	17	43.6	55.8

The table shows that the cities with the greatest proportion of workers in industry, or in three occupations combined tended to grow faster than the cities with the smaller proportion. In Bengal too, the growth of new urban centres, large and small, during 1901-1951 and 1951 have shown a clear pre-

ference to the geographical location in the Calcutta industrial region along the Hooghly river. But, though "urbanisation has been spreading during the last few decades in the areas of larger urban clusters and in bigger population 'nodes' rather than around small centres", in Bengal a new factor in the urbanisation process intervened, that is immigration from East Pakistan in lakhs.

URBANISATION IN BENGAL

Over the last few decades the census definitions of cities and towns in India have not remained uniform. This has definitely hampered the correct assessment of the urban growth in Bengal and this, in turn, put difficulties for the urban sociologist to gauge the effects of urbanisation in the area. In Bengal, for example, a place which has a population of 5000+, is regarded a town. But this has not been strictly followed in the delineation of towns in different censuses. Certain municipalities with less than the prescribed population have gone in for towns. Further, according to the Bengal Municipal Act III, 1884, it is expected of municipal towns that "three-fourths of the adult male population are chiefly employed in pursuits other than agriculture". In respect of municipal towns in Bengal this was very infrequently fulfilled. Sometimes, again, certain towns which are administrative headquarter of the district or the sub-division of the district have proved to be the overgrown villages. Cities and towns, nevertheless, tended to show an increase during the intercensal years, starting from 1872. Taking 100,000+ as that of the city, we find that the number of cities increased from 1 in 1872 to 4 in 1941 and towns increased from 58 in 1872 to 156 in 1941. The rate of growth of cities and towns during each decennial from 1872 to 1941 will be visualised from the table below :

Growth of Cities and Towns in Bengal 1872-1941

Census year	Number of cities	Number of towns
1872	1	58
1881	1	80
1891	2	106
1901	2	122
1911	3	124
1921	3	135
1931	3	143
1941	4	156

and the increase of urban population in the intercensal period was like this :

1872-1881	+ 134,327
1881-1891	+ 231,546
1891-1901	+ 375,780
1901-1911	+ 369,082
1911-1921	+ 243,064
1921-1931	+ 500,636
1931-1941	+ 22,71,350

and this increase in urban population, if expressed in terms of percentage of the total population in Bengal, can be tabulated as follows :

Population of Cities and Towns as Per Cent of Total Population

Year	Calcutta	All cities	Towns	Total urban population
1872	1.82	1.82	3.53	5.35
1881	1.65	1.65	3.73	5.38
1891	1.71	2.00	3.58	5.58
1901	1.98	2.34	3.72	6.06
1911	1.93	2.55	3.97	6.52
1921	1.91	2.57	4.18	6.75
1931	2.34	3.05	4.21	7.26
1941	3.43	4.59	5.14	9.73

From the table above, it appears that the percentage increase in urban population between 1872 and 1941 is nothing spectacular. If this is a fact, then the increase in urbanisation has not been commensurate with the increase in population. Proliferation of towns has been due to factors other than demographic. Indeed towns were created for administrative expediency right from 1895 onwards. Sub-division of municipalities led to the emergence of new towns. In 1891, there was one town of South Barrackpore ; in 1895, Titagarh was separated from it, and in 1900, Panitali. In the census of 1901, there were thus three towns in place of one before, although the area remained unaltered. In 1916, there was a further fragmentation of already truncated South Barrackpore into Khardal and Barrackpore. Now there were four

towns in place of one. From this proliferation of towns one thing comes up very clear that the number of towns does not truly reflect the establishment or development of new urban areas.

Whatever might have been the story of 'creation' of urban centres of population prior to 1930s, urbanisation assumed a different trend since the thirties. Since this period the number of cities of 100,000+ increased on an all-India basis. And during the last two decennium (1941-1951 and 1951-1961) there has been unprecedented proliferation of urban centres in Bengal of both higher (20,000+) and lower (5000+) orders. Socio-economic causes of such growth are to be sought in the phenomena like the Famine of Bengal of 1942 which sucked population from rural areas and pumped it into urban areas, the Second World War and its theatre of operation in Eastern Zone offered opportunities for urban employment and last but not the least, the partition of the country resulting in a territorial shift without any precedence whatsoever. The decennium of 1951-61, therefore, has shown an increase of towns and cities not hitherto visualized. The number of cities with a population of 100,000+ has increased from 5 to 8 during 1951-61. They are Kamarhati (125,457), South Dum Dum (111,284), Bally (101,159), Baranagar (107,817), besides Howrah, South Suburbs, Garden Reach and Bhatpara. The number of 'major towns' has gone up from 9 to 10 during 1951-1961. They are Titagarh, Barrackpore, Naitali, Kanchrapara, Halisahar, Panitali, Chinsura, Chandernagore, Serampore and north Barrackpore; majority of these ten towns are factory towns absorbing a large influx of industrial population from far-flung areas. The number of 'ordinary towns' has increased from 13 to 16 during the same period. They are Budge Budge, Panchur, Nangi, Dum Dum, North Dum Dum, Khardah, Garulia, Bhadreswar, Champdani, Baidyabati, Rishra, Konnagar, Kotrung, Uttara para, Bansberia, Bally (N. M.). Of these 16 'ordinary towns' 3, including Panchur, Bally (N. M.) and Nangi, were non-urban areas as late as 1951. Urban status had to be accorded to them as there was a heavy inflow of refugees to these places after 1951. There was also an emergence of 22 "semi-towns" with population less than 10,000. The number of such towns was only 1 in 1951. A more significant phenomenon in the urbanisation process during 1951-61 has been the sprouting of 6 urban clusters or 'town groups' comprising 26 small towns with population below 20,000 within the folds of Calcutta industrial region. Of these 26 sub-towns and semi-towns, 24 are new developments; only two were there as urban centres in 1951. The following table will show the six Town Groups with their towns of different population load :

Town group	Towns with population load		Total number of towns
	10,000-20,000	Less than 10,000	
1. Ulberia Town Group	Ulberia*, Chengail, Fort Gloster	Bauria, Barui Khali	5
2. Kasba Town Group	Kasba	Sontoshpur, Rajpur Bansdroni, Garfa, Godavpur, Purba-putiari	7
3. Sankrail Town Group	Sankrail, Sarenga	Manikpur, Andul, Ghorehat, Banupur	6
4. Domjur Town Group	None	Mahiari, Nibra	2
5. Kalyani, Kataganj & Gokulpur Govt. Colony	Gayespur Govt. Colony	Kataganj & Gokulpur Govt. Colony, Kalyani	3
6. Jargachha Town Group	None	Sant-ragachi, Unsani, Jugachha	3

*indicates towns were in existence as urban centres in 1951.

Most of these clusters of townships are refugee settlements. Since 1951, there has been a continuous flow of refugees from East Bengal and they have been accommodated in these town groups. Of these, Kasba Town Group and Kalyani, Kataganj and Gokulpur Colony Town Group are the best, 'shock absorbers' in respect of refugees. Sankrail and Jagachha Town groups have had the mushrooming growth of towns during the last decade owing to a constant flow of wage-earners and industrial migrants to the Hooghly valley industrial belt. Of the three other new semi-towns with population less than 10,000, the first (Nabagram colony) is a township of the Hind Motors, the second (Dum Dum Aerodrome Area) is a residential colony around Calcutta airport, while the third (Kalyani) is a State-sponsored planned town.

Another urban complex proliferating from 1951 onwards is to be found around Asansole-Raniganj area. Besides the Greater Calcutta Region, this constitutes a new 'Population-cum-industrial node' and registered 9 urban centres in 1951. They include Asansole (76,277), Kulti (31,363), Raniganj (25,939), Burapur (18,487), Chittaranjan (16,162), Neamatpur (11,756),

Barakar (10,440), Disergarh (7842), Ondal (4288). The combined population load of this urban complex in 1951 was 202,554.

A third zone showing signs of progressive urbanisation is the western region of West Bengal, specially the district of Birbhum. In the place of only one urban centre, Suri (8692) in 1901, four more came up between 1901-1951 including Rampurhat (15,144), Bolpur (14,829), Dubrajpur (12,205), Sainthia (8707). Three of them emerged during 1931-51 and they are Bolpur, Sainthia and Dubrajpur.

From what has been said it is evident enough that there has been a continuous multiplication of different urban components in Bengal during 1951-61. The most significant feature about the urban growth has been a progressive sprouting of newer and newer urban nuclei around the municipal limits of Calcutta consequential to a constant flow of low-income group families and displaced families from Pakistan. Urbanisation during the decennium 1951-61 might then be called a 'refugee-incentive urbanisation'.³ An over all picture in Bengal, therefore, is one of steady urbanisation whatever might be the generating forces. And the rural areas are having the influence of urbanisation felt in their social structures as well as in their organisations.

URBANISATION AND RURAL-URBAN RELATIONS

"The rural-urban dichotomy is untidy, a sociological concept in India as it is elsewhere in the world" (Richard D. Lambert).⁴ It is very true indeed and the census authorities are much to be blamed for their blurring of the two concepts. Moreover, as Lambert further holds "in India the web of society is out by so many cleavages and composed of so many distinctive strands that the separate grouping of urban centres as contrasted with rural areas is considerably less efficient for the purposes of social analysis than many other ways of partitioning the society. This becomes apparent the moment one begins to deal variables such as occupation or industries". Mr. Lambert has shown that of 88 sub-divisions of the Indian census economic classification only 13 have less than 25% of their work-force in the rural areas and that none of the 13 employ a total work-force as high as 500,000 workers. Also, even those economic activities which are normally considered to be urban activities, viz. textile manufacture, metal work, construction, the manufacture of chemicals and fertilisers, electric machinery and supplies, cement wholesale and retail trade, etc.—have large segments of their labour force in rural areas. Activities normally classified as rural are not absent from the largest cities either. Even a metropolis such as Madras had 32 persons per thousand engaged in primary industries (cultivation and live stock tending) in 1951; Allahabad with a population of 332,295 in 1951 had 71 per thousand engaged in primary industries.

The overlapping of rural and urban areas is discernible in other spheres

as well. *Report on a Preliminary Inquiry on the Growth of Steel Towns in India* by Vithal Babu reveals that the entire area around the Asansole industrial complex, villages as well as towns, might well be considered one unified urban area as rapid industrialisation turns the hinterland of each large factory into dormitory settlements for its workers. Dormitory settlements are also flourishing very much today on the basis of bus services and electric train services from both the railway termini (Howrah and Sealdah) of Calcutta. The two conurbations of Howrah and Hooghly have also a strong spill-over effect between rural and urban settlements of the area. This spill-over effect may very much obviate the contention of one of our noted anthropologists, the late Prof. D. N. Majumdar. Prof. Majumdar in his *Caste and Communications in an Indian Village* (Asia, 1958), writes, "An Indian village is not merely a way of life, it is also a concept—it is a constellation of values and so long as our value system does not change, or changes slowly and not abruptly, the village will retain its identity and so it has done till today. The continuity that one finds in other parts between rural and urban living—a 'continuum' as a noted anthropologist has described it—does not necessarily exist between village and towns in India. There are two distinct constellations of values and there are sharp dividing lines between the two levels of living and experience. Even villages situated on the out-skirts of towns have maintained the value system and thus our villages do not become townships". The extraordinary proliferation of town groups and new towns in the periphery of old ones seems to question the validity of the contention of the late Professor. Inroad of urban values into the rural areas can hardly help 'villages situated on the outskirts of towns' maintain their value system.

Overlapping of the rural and urban areas and the spill-over effect become much more manifest when we take the concept of UMLAND into consideration. The term UMLAND has a German origin, meaning 'surrounding area'. 'Omland' in Swedish has got the same connotation. Since the publication of the work on UMLAND by Von Thuenen and Christaller in Germany there has piled a mass of literature on the question of town-country functional relationship.

The concept of the UMLAND is an important consideration in the study of urban settlements. The UMLAND is a region which is linked economically and culturally with the town. The town is not a self-sufficient unit either; it has to depend on the surrounding country-side. It is beyond one's perception to draw the limit of UMLAND of a city. Some geographers have attempted to determine such boundaries taking retail and whole-sale trade, newspaper area, daily supply of milk, fruit and vegetable into consideration. In 1948, F. G. Green submitted to the Institute of British Geographers that analysis of bus service areas might prove an important guide in the determination of urban hinterlands.

For a proper assessment of rural and urban functional relations in India the concept of UMLAND, I feel, should be released from its geographical matrix and might be put to more successful sociological uses. Since there has been an unprecedented proliferation of urban areas in Bengal during 1951-61 and rural-urban contacts are also in abundance, the claim of a rural-urban dichotomy in values seems a bit tall. On the contrary, rural areas are caught in that unique process which Karl Deutsch describes as "social mobilisation". According to Karl Deutsch it is "the process in which major clusters of old social, economic and psychological commitments are eroded and broken and people become available for new patterns of socialization and behaviour". Some of the main indices of "social mobilisation" *a la* Deutsch are to exposure to aspects of modern life through demonstrations of machinery, buildings, consumer goods etc. response to mass media, change of residence, urbanisation, change from agricultural occupations, literacy, growth of *per capita* income etc. (Karl Deutsch, "Social Mobilisation and Political Development" in *American Political Science Review*, September, 1961).

A silent social revolution stemming from the urban area is indeed reaching the rural sector of the country. The gap between the rural and the urban areas is really diminishing. Sophistication, which so long had been considered an urban trait, is gradually getting hold of the rural people. Demonstration effect in respect of clothing, footwear, leisure time activities is very much palpable. My own experience during village surveys in West Bengal is my best guide for this study of rural-urban interaction pattern. Tea has become a household thing in the rural areas; a loaf of bread is more preferred to fried rice or any other conventional snacks. Cigarettes have replaced biris, hawaii chappals replaced wooden slippers (Kharams), trousers and bush-shirts, pyjamas and T-shirts are common sights in the villages today. Transistors, bicycles with women on pillions are not something new in the villages. The villager is no longer a tame a-political animal either. The community development projects, extension services and the panchayati raj have opened before him a long vista for achieving status in the society. Modern education and urban contact have gone a long way in undermining the traditional type of leadership. One can no longer claim leadership in a village merely because he is the oldest man or he belongs to the oldest family in the village. Consequently, the self-styled leaders far exceed the traditional leaders in the rural set-up today.

Urbanisation is a double edged weapon. Just as, through urbanisation, a new leadership could be generated in the village, the villages could be deprived of leaders too following an exodus of them to the cities. The exodus of the intelligent and educated persons from the rural areas to far-off big cities is an established fact. And this gives rise to a leadership vacuum in the rural areas. Second rate leaders come to the fore. If the village is within the

community distance of the central city, these leaders try to keep abreast of the socio-political situation of the country and their contributions in politicizing the rural people have proved none-too-bad. This is how the city impinges on the village politically.

Technology is breaking down social barriers. Demand for an egalitarian living and a good life is writ large in the villages of Bengal. A few years back Prof. N. K. Bose, the noted anthropologist, expatiated on the subject of such changes in village-Bengal in some of his articles. Referring to the effects of urbanisation he writes that the demand for schooling among all castes including the suppressed Dule castes was one significant development in rural areas. He also writes that the villagers have shown a penchant for clubs, cultural associations, theatrical organisations. But these theatrical organisations are of a new *genre*. Villagers no longer feel kindly to the *Old Yatras*, they have on the contrary, showing a preference for urban type of stage performances. More and more dependence on dramas published in Calcutta, particularly at Battala and Garanhata is to be envisaged among these histrionic elites.

Another important development of the sprawling urbanisation on the rural areas is the emergence of "New Youth". They are, unlike their peers in the former days, more vocal. Unquestioned acceptance of anything is a thing of the past. They question, they quip, they banter. But their intransigence has not yet jeopardised, as far as my personal experience goes and as other also hold, the integrity of the community life in the village. The cities thus do have a dynamic role in the cultural transformation of the rural areas that surround them. Bert Hoselitz aptly observes: "The primate cities of Asia are the most important centres of cultural change, specially in those fields which vitally affect economic development: advanced education, new forms of business organisation, new administrative practices and last but not the least, new technologies find a fertile soil in them, their intermediate position between East and West, their contact with world markets of commodities and ideas, their lack of many traditional bonds make them into eminently suitable vehicles for the introduction of new ideas and new techniques. If economic development is associated with modernization, the mediation of new, 'more modern' forms of social action through the primate cities of Asia is an indispensable part of this process".⁵ That Calcutta is a primate city at the present moment has been amply borne out in the most able study of Prof. A. Ghosh of Jadavpur University.⁶ Effect of urbanisation on the rural family, on the *purdah* of women, on social mobility in general and caste strictures, are far too obvious to be incorporated here. There are quite a few readable and useful monographs on village Bengal published by the census authorities. J. Sarma's article on a Bengal village in *India's Village*, M. N. Srinivas (ed.), is a substantial pioneering contribution. The Tribal Welfare Department of the Government of West Bengal is also engaged in some kind of research work about the urbanisation

process in West Bengal. There is scope still for further researches on urbanisation in Bengal.

I may sum up saying that the westernization, sanskritisation, modernisation and urbanisation have all moved hand in hand in the process of waking up of the 'great giant' that India is.

NOTES AND REFERENCES

1. Kingsley Davis, "Urbanization in India", in Roy Turner (Ed.) *India's Urban Future*, p. 7.
2. *Regional Planning for West Bengal*, CMPO, 1965, p. 73.
3. Instead of 'immigration incentive urbanisation' I call it 'refugee-incentive urbanisation' because immigrants in West Bengal are not new. They have been pouring in here since the second half of the last century, specially with the opening of the Calcutta Port.
4. Richard D. Lambert, "Impact of Urban Society upon Village Life", in Roy Turner, *op. cit.*, pp. 117 ff.
5. Bert Hoselitz, "Urbanisation and Economic Growth in Asia", *Economic Development and Cultural Change*, October, 1957, p. 43.
6. I express my gratitude to Prof. A. Ghosh as he kindly showed the Mss. of his study. The study was sponsored by the R. P. C. and is just published.

CHANDRA MOWLI

Socio-Economic Change in the Tribals of Andhra

*“Olaba irba onji! angalba irba onji!
Tabangba irba onji! batiba irba onji!
Baraba irba onji! Kambraba irba onji!
Basidba irba onji! marissaba irba onji!”*

(Go ye, children all in a queue,
Leaves to gather and fuel to hew.
Go ye, children, get ye please,
Tender shoots of bamboo trees.
Go ye, children, from your cages,
Toil and moil for your wages.
Get ye, mushrooms as ye find,
Mind ye, pluck the edible kind.
Get ye children ! as ye start,
Salt and chilli from the mart).

THIS is a Savara tribal poem which mothers generally sing almost every day ; it summarises their trials and tribulations over the past one century nearly, in which, their economy did not make any progress in the modern sense, except in the past two decades of the post-independence period. This is generally true of all the tribes in India, but for certain specific reasons, which need sociological enquiry, more true of the Northern Circars in Andhra Pradesh and also of the adjoining tribal tracts of Orissa and Madhya Pradesh, especially in the Bastar, Koraput and Parlakimidi areas bordering Andhra Pradesh.

AREA AND INHABITANTS

The largest concentration of Scheduled Tribes in the country is found in nine States including Andhra Pradesh. The extent of the Agency area in Andhra Pradesh is nearly 11,350 sq. miles which form 11 percent of the total scheduled area in this country and 10.7 percent of the total area of this State. It is largely covered by the Godavari, Visakhapatnam and the Srikakulam districts which have huge hinterlands of hilly tracts where the tribals live. The song cited above is a song of the Savaras (also pronounced as Soras). They were originally called Sabaras, from whom the old lady who offered fruits to Sri Rama somewhere in the Bhadrachalam valley, namely, Sabari is supposed to have hailed. The Sabaras have been referred to, in ancient Sanskrit literature from the very early times, in the *Atreya Brahmaṇa*, the *Rāmāyaṇa*, the *Mahābhārata* and the *Kaṭha Sarit Saḡara*. Pliny referred to them as Suari and Ptolemy called them the Sabrae. The *Purāṇas* described them as 'Vindhya Maulikas' meaning the aboriginals of Vindhya mountains. They belong to the same family of pre-Dravidian Australoid aboriginal tribes which include the Mundas, the Santals, the Bihods, the Juvaras, Hos and some others in Central India, and the Ghonds, the Parengs and the Remos in Southern Orissa. The present home of the Sabaras lies to the north of the Parlakimidi in Orissa and extends from the Parvathipuram Agency in Andhra Pradesh northward towards certain areas of Madhya Pradesh. Their estimated population all over India is nearly 2½ lakh today. The Sabaras of the Northern Circars in Andhra Pradesh have preserved their language, their religion, their traditions, and their customs and manners. In addition to the Sabaras, the Srikakulam district has in its Agency areas, the Khond, the Jatapu, the Mukadora, the Gadaba, the Koya and the Ghond tribes. The Godavari and Visakhapatnam Agency areas are inhabited by the Koyas, the Kondareddis, Kondadoras, the Kondakapus, the Bagatas, the Valmikis, the Paidis, the Koliyas, the Korgas, the Phuliyas, the Komaras, the Ojas, the Mulias, the Oginbes, the Ronas, the Kodulus, the Kummaries, and the Gowdus also, in the hilly areas.

Out of the total population of 8 lakhs of tribals in Andhra Pradesh, about 5 lakhs of tribals live in the scheduled areas, while the remaining live in the non-scheduled areas. More than half of them live in the Northern Circars. The population of the Scheduled Tribes is roughly 2.5 percent of the total population of the State. Of all the tribals enlisted above, the Sabaras, the Jatapus, the Gadabas, the Koyas, the Bagatas, and the Kondadoras are the most predominant, in the size of population as well as in their socio-political consciousness. The most backward of the tribes in Andhra Pradesh are the Lingadhari Koyas, the Chenchus and the Yanadis, according to the Scheduled Areas and the Scheduled Tribes Commission (October 1961). Following are the population figures as per the 1961 Census.

Tribes in Northern Circars

Koyas	..	2,20,146	Gadabas	..	21,840
Savaras	..	68,185	Mukadoras	..	9,965
Jatapus	..	62,794	Porjas	..	9,350
Bagatas	..	53,154	Mannedoras	..	8,476
Kammaras	..	24,629	Gonds	..	8,392
Valmikis	..	22,354			

The district-wise tribal population figures in the Northern Circars are:

Srikakulam	..	1,92,276
Visakhapatnam	..	2,13,820
East Godavari	..	1,00,343
West Godavari	..	44,058

The literacy of Scheduled Tribes population in Andhra Pradesh is only 4.4 percent. West Godavari district in the Northern Circars stands first with regard to the literacy of Scheduled Tribes. The total literate and educated tribal population consists of 48,698 males and 9,655 females. Most of them are under the age-group 'below 14'.

THE KOYAS AND THEIR PAST

The Koya land comprises of an approximate area of 3,200 sq. miles. The Polavaram *ta'luq* on the west band of the river and the Chodavaram, Yellavaram, Bhadrachalam and the Nugur *ta'luqs* on the opposite bank of the river, form part of the Koya land within Andhra Pradesh. The Koyas trace their origin to the Bastar district of Madhya Pradesh. Their population is estimated to be more than three lakh in India at present. There have been frequent movements of the Koya population from Bastar to Bhadrachalam all over the Godavari and the Sabara valleys. It is not a question of migration from one State to another but it is a movement within their own land. It is noteworthy that the Koyas have suffered from the misfortune of having their lands divided up amongst five or six, separated and widely differing administrations, throughout the last century. The idea of the sufferings through which the Koyas have passed can be obtained by a peep into the history of Bhadrachalam and its neighbourhood in the first half of 19th century. Until the Bhadrachalam *ta'luq* was handed over by the Nizam in 1860, the local *zamāndār* maintained a troop of Rohillas who received no pay, but lived on looting the Koya country. The *ta'luq* was divided into Samutus, each theoretically comprising 25 Koya villages, and each village had to supply for a month without pay or 'beta' a hundred Koyas to carry burdens and a hundred Madigas to act as horse-keepers. The whole land was at the mercy of the

indisciplined Rohillas. A. Ayyappan, in his report (1948) on the aboriginal tribes of this area quotes Mrs. Caine, "All was grist that came to their mill—even the clothes of the poor Koi women who are frequently stripped and then regarded as objects of ridicule. They could never lie down to rest at nights without feeling that before morning their slumbers might be rudely disturbed, their houses burnt and their properties carried off. As a rule, they hid their grains in caves and holes in large trees. The last great plunder was in 1859 near Parnasala". The Koyas were controlled by an extremely democratic organ "The Kula Panchayat". The village was the unit of administration and over it was a Pinna Pedda. This office was hereditary, but a democratic principle used to be applied to it. When a member died, his heir was usually elected in an assembly of village leaders, but if the heir was not fit due to minority or incapacity, villagers elected a regent to officiate for him. Above him was the Kula Pedda or the Patel who is recognised by the Government. The post was hereditary, corresponding to the village munsiff. The Government also appoints Thalyaries, but since they are few in number, i.e., one for 7 or 8 villages, each village appoints and pays for its own 'vetti'—a multipurpose village-servant. A group of 10 or 12 villages forms a Samutu in the Koya country. Over the Samutu, presides the Samutu Dora (known as the Kula Dora or the Pedda Kapu) almost like a Chairman of the Council guided by the opinion of his colleagues. All the disputes in the villages are settled by the Kula Pedda (village munsiff). During the last century, the Pedda Kapus have occasionally been tyrannical, at times levying heavy fines and appropriating most of these funds for themselves. The Koya villages on the hills are usually known as the Guttas, and the river-side villages are invariably known as Gummas. Due to the immigration into the agency areas of the plainsmen, the occupational patterns have slowly been introduced during the century into the Koya land and there has also been a slow infusion of the non-tribal blood amongst the tribal populations. The sub-divisions of the Koya community and the sub-castes are mostly known after the occupation of the particular sects, for example, 'Gampa' for blacksmithy, 'Musara' for brass workers, etc. The *koyas* are known by their social functions like the Vaddikoya (a priest), Pattidikoya (a beggar), etc. All these Koyas speak the Koya language with dialectical differences. Particular professions crystallised into castes, and each caste spoke the Koya language in its own way of intonation and pronunciation giving birth to myriad dialects divided by meandering mountain walls. The Koyas do the urnburial, and kill a buffalo at the funeral, and eat it, and leave its tail on the tombstone. Amongst all the tribes, child-marriages are very popular, even to this day. Despite the efforts at education, countless cases of young widows and widowers below the age of fourteen, can be seen. Re-marriages for both the sexes are, however, permitted. The Koya language is a dialect of Telugu spoken with a characteristic hill-accent. Mrs. Caine, a missionary lady, devised

a script for the Koya language for the Koya people and published books in the 1870s. The Koyas are all mostly Hindus. It is worth-mentioning here that in spite of very zealous missionary efforts in the nineteenth century, the Koyas remained unyielding, due to their natural conservatism. All forms of marriage, including elopement, recognised by the ancient Hindus obtain among them. Marriage-rites are done on the Hindu lines. The dowry system is not in vogue, but the 'Oli', or the bride-price, is paid by the bride-groom's party. Elopements are recognised after a successful staying together for more than three days. No marriage is allowed to take place, if the girl does not consent to it. The Koyas take to many professions, including agriculture and cattle-breeding. Their cattle are badly bred and poorly fed. During the past one century the Koyas have been so poor that they could not afford to wear more than a cloth for the head in addition to a loin-cloth. Generally, they take gruel and the roots and barks of some trees. Toddy forms part of their food. They eat lizards, the flesh of rabbits, wild boar and buffalo. During obsequies they kill cows also, but preference is given to old animals. Generally, meat is taken by them only during ceremonies. The Koyas are ignorant and find themselves unequal to the forest-contractor and the merchant. They are honest but lazy. They are a hard drinking lot. They drink juice of the palmyrah, the sago-palm and also the *arrack* distilled from the 'ippa' flowers.

THE SAVARAS AND THEIR CULTURE

The Savaras consist of two different classes—the primitive race living on the hills and the more civilised sections inhabiting the foot-hills. The Savara men use long lion-cloths, hanging down in front and behind, like tails. They wear a crown of white crane's feathers in their cone-shaped red turbans. They also carry bows and arrows adorned with peacock feathers. The women dress is one short cloth with a broad red border round their waist and nothing above, except brass wire and bead necklets a foot deep, which almost prevent them from turning their heads. Amongst the Savaras also, there are certain occupational sub-divisions. Unlike the Koyas, there are no totemistic sects amongst them. Unlike the Koya language, the Savara language has a distinctive individuality of its own. A famous anthropologist, by name Gidugu Seethapathi, studied their language, collected their poetry and gave them a script. The Savara temples are symbolized by a stone under a big tree. Sacrifices of goats to these way-side deities are common. The Savaras perform great annual sacrifices to their departed ancestors on a full moon day in the spring at which, a buffalo is given for every death during the year. Savara headmen are called Gomangas. Unmarried Savara girls invariably shave their heads even to this day, in order to make themselves unattractive to the amorous approaches of adolescent boys. The Savaras have a strange habit, in certain areas, of cohabiting only in the day time, only on the prescribed days of the

month. The Savaras are very famous for their soothsaying and magical powers of mesmerism and miracles, as well as the medicinal systems of the Ayurveda.

BRIEF HISTORY OF OTHER TRIBE

Gadabas:—Gadabas are palanquin-bearers and cultivators by profession, and are split into six sub-divisions. They dress like the other hill-people, but the women of this tribe have perhaps the most extraordinary garb. Round their waist they tie a narrow cloth, woven by themselves on the most primitive loom of which the warp is the hand-spun fibre of some jungle-shrubs but the woof is cotton, dyed at home with indigo and arranged in stripes of red, blue and white. Marriage usually occurs after puberty. As amongst the Savaras, a man generally weds a girl from outside his family.

Jatapus:—The Jatapus are in large numbers in the Northern Circars of Andhra Pradesh. They are mostly concentrated in the Parvathipuram and Palakonda *ta'luqs*. Generally, the Jatapus are much cleaner than the Savaras and other neighbouring tribes. A Jatapu village consists mainly of two rows of huts on either side of a single lane. The villages are very neatly maintained and their huts are built of black clay, and ornamental designs of flowers are painted in white powder on the walls of their huts. Unlike the Savaras and Koyas, there used to be no village panchayat holding sway over the village commune. The Nayudu is the head of the community and there is one hereditary Nayudu for each village to decide all the social and other disputes. Almost half of the Jatapu population still speak the Jatapu language which has a script of its own, but it has not been developed. All the Jatapus are conversant with Telugu. The superstitious belief among the Jatapus is that unless the festival is celebrated with sacrifice of goats and pigs, and a lot of drinking, before the harvest of every crop, their gods would endanger their life and fail the crop. Amongst all the tribes in the Northern Circars, such beliefs are responsible for a heavy drain on the tribal resources. Generally, the Jatapus are not addicted to drinking as much as the Savaras and the Koyas. All forms of marriage are recognised among the Jatapus including elopement and also 'Illattam' which means "a son-in-law got by the service-method". The children born of all these methods are recognised as legitimate. Divorce, widow-marriage and levirate are recognised. The Jatapus cremate their dead like the Savaras.

Bagatas:—Unlike most other tribes the Bagatas are not scattered in several districts. They are found only in the Visakhapatnam district. The Bagata land comprises the hilly tracts in the Mudugula, Narsipatnam, Chodavaram and the Anantagiri *ta'luqs* extending over nearly 2,000 sq. miles. The Bagatas were originally a soldier-caste, and appear to have been the devoted soldiery of the kings of Golkonda, who, in appreciation of their loyalty, called them 'Baktas' and granted lands on the plateau to them as 'Mokshas'. The head of

a village in this area was called 'Padal'. Over a number of padals is the Naik or the Raju, and over the Rajus is the Dora who is the modern Mokshadar or popularly known as the Muttadar. There used to be no village panchayat amongst the Bagatas. The Kula Redda used to try the offender and fine the guilty. All the Bagatas speak a dialect of Telugu. They are addicted to drinking, opium and also to gambling. Unlike the other tribals, the Bagatas do not eat beef. Their hygienic standards have not been high and the surroundings are not sanitary. They do not inflict any form of inhuman punishment on anti-social elements. No criminal propensities are noticed amongst the Bagatas. Unlike the Koyas, who desire a secluded life even from the rest of the Hindu community, the Bagatas mix with them freely. Amongst the Bagatas, there are fishermen who are said to be very expert at catching fish with a long spear. On the 'Dasara' day, they worship the fishing-baskets and also the trident (or the Trishul). Girls are married either before, or after puberty. "Menarikam", the social custom compelling a man to marry the maternal uncle's daughter, obtains as a general rule. Marriages are performed in the presence of elders and *purohits* are also employed. As a substitute for the bride-price, the girl is presented with jewellery. As in the case of all the other tribes, their income is only seasonal; they resort to supplemental sources such as gathering and selling of forest produce like honey, soap-nut, myrobalan (gall-nut), tamarind, 'adda' leaves, etc., which, all the other tribes also collect and market for the plainsmen. Just like the other tribes, the Bagatas also do the 'podu' cultivation.

DECADES OF DEVELOPMENT

During the past century (*circa* 1870-1960), the geographical and ethnic factors governing the tribal life in general, have not changed much, except in the last two decades. The foregoing account of the social life is still largely true of all those tribals mentioned above. But their economic life has undergone an extraordinary change due to great transformation of their environments. The 19th century tribal society has thus received a rude jolt from the several programmes and schemes, which have effected the Agency areas during the past twenty years following Independence. Taking, for example, the town of Visakhapatnam, one observes that within a radius of 70 miles, there are nearly five rivers: the Varaha, the Thandava, the Sarada, the Champavathi and the Gostani. Across every one of these rivers, there is a project planned and some of the dams are already under execution. The Muchkund project and the Sileru hydro-electric scheme were planned and executed in the heartland of the tribal world. Different afforestation and irrigation schemes have uprooted tribal villages, and rehabilitation schemes are undertaken to stabilise the normal tribal life in the newly constructed villages by means of land-colonisation schemes. The D. B. K. project, the high-altitude broad-gauge railway-

line in Asia linking the Vizag port with Dandakaranya, Kiriburu and Bolangir in Orissa State, going through the tribal areas, has brought new sources of employment amongst the tribal population. There are nearly 80 tunnels on this railway line which is undertaken with the Japanese collaboration. It has been opened for goods-traffic recently, and the economic consequences of this railway-line as an artery of commerce and tourist traffic would bring about a great transformation of tribal life in this part of the Northern Circars. The Araku Valley Development Scheme in Andhra Pradesh, and the Dandakaranya project in the adjacent Orissa State, have already wrought a slow and silent socio-economic revolution in the life of the tribals in this area. During the past two decades, the political consciousness of the tribals has been very great, with the introduction and strengthening of the Panchayat Raj system in Andhra Pradesh. Today only a tribal can contest the panchayat elections for the Samiti presidency. The general elections have brought about a spirit of cohesion and unity amongst all the tribes, so far scattered without inter-communications amongst the hilly areas, divided by distance and deep ravines.

But inasmuch as modern life has brought to the tribals some ready remedies for their economic ills such as their poverty, their illiteracy and their ill-health, there is a great and gradual disappearance of ancient ways and traditions. The Sabara and the Jatapu dialects are slowly being forgotten by the children of today, being educated in Telugu schools. Their language and script are not being preserved either by the government or by their own elders. Their cultural history reveals, especially amongst the Savara, the existence of some musical instruments, the famous amongst them being the 'Adavi Jangan', a primitive form of lute. From a study of the Savara lutes, collected from different parts of India, especially in Madhya Pradesh, Orissa and Andhra Pradesh anthropologists have discovered the many missing links amongst the similar musical instruments of Australoid and kindred tribes found from Madagaskar to New Guinea. Their songs and dances are slowly yielding place to those their children learn from the new films of today. No serious efforts are being made by even their few educated elders to collect and preserve their songs, their poems, their folklore and their dances. In this respect, the tribal life of Northern Circars is fast getting modernised. Big reservoir schemes, such as Vottigadda Dam, in the Parvathipuram Agency, and the Champavathi scheme in the Andhra Agency, are likely to bring settled cultivation to regions once inhabited by nomadic tribes. With regard to communications, the recommendation of the Report in March 1960 considered that in places where the transport of produce is essential to the economic development of the tribal tract, and where an all-weather road cannot be built with the financial resources available, the possibility of funicular railways should be investigated. According to the report, they are relatively cheap and the maintenance cost is very little although they are very slow. There are fairly long railways of this type used in mines,

providing cheap transport of non-perishable commodities over distances upto 30 miles. There are, of course, in view of the import restrictions, some difficulties about this, but the matter deserves consideration. Any discussion on health services takes us to the question of basic education and its impact on the tribal population in the field of health and hygiene. In areas where the villages are small and widely separated from one another, there is scope for transforming some of the schools into inter-village schools or Ashram schools. There are some successfully functioning Ashram schools in almost all the Samiti areas in the Northern Circars of Andhra Pradesh. A very much felt need of this area is the spread of knowledge of current affairs in the world beyond the tribal areas by means of photographs, slides and films. Not much is done in this field in many of the Samitis because of the lack of electrification. Of late, there has been a decline of tribal industries. The difficulty is that although the tribal people are of artistic temperament, their arts and crafts have largely perished due to a number of enemical factors. Poverty has been the main reason for the decline of arts and crafts. The lack of raw material, the restrictions of forest laws, the decline of demand for some of their fine cane-and-bamboo works in certain nearby urban centres, where competitive artificial fibres are making great progress in local markets, and above all, lack of patronage and encouragement to market the tribal produce on a commercial basis, have been the main reasons for the decline of the tribal arts and crafts. Fortunately these restrictions are being progressively reduced by the unstinting efforts of the Andhra Pradesh Scheduled Tribes' Corporation. It has been making excellent efforts towards marketing of tribal produce in the Northern Circars of the State.

FROM FEUDAL MONARCHIES TO GRASSROOT DEMOCRACY

The little legislatures of Panchayat Samitis have made the tribal population extremely alive to their aspirations and needs, rights and responsibilities. The tribal democratic leadership whenever it is not misguided by the non-tribal merchant-classes from the plains, is generally of a honest and sacrificing type. The tribal leaders have strict loyalties to the Rajas who once ruled them. The recent General Elections revealed that several Rajas contested as tribals from the reserved constituencies. The Yuvarani of Jeypore was elected as Member of the legislature from the Madugula tribal constituency in the Visakhapatnam district. The Raja of Chinna Merangi was elected from the Parvathipuram reserved constituency of the Srikakulam district. The history of the past century reveals that although some of these royal households have remote beginnings as rich tribal families, they, by inter-marriages with many other royal houses in Orissa, Bihar and Rajasthan, have become very eclectic and modern in outlook. Most of these Rajas called themselves Konda Doras and their hold over the tribal populations is almost magical. Traditional

beliefs bind much of the tribal populations in the Northern Circars to five or six royal households which were mostly *zamīndārīs* under the Raja of Jeypore (on the highway from Waltair to Jagdalpore). These royal households have played an important role amongst tribal areas as the only windows of contact for the tribals with the modern world outside their hills, till as late as 1950.

TRIBAL REVOLTS AND FREEDOM STRUGGLES

The history of this century reveals that the tribals have always resisted any political interference with their ancient systems of socio-economic life. There have been tribal revolts against the British dominance over these areas. Andhra Pradesh had its first revolt in 1803 in Rampa agency in East Godavari district. In 1862, the Koyas attacked their tyrannical muttadars who supported the British Government and rackrented them by levying a number of exactions on them. The tribals picked up their bows and arrows against the muttadars and the British in 1879, and later on, in 1880 under the leadership of Tammandora. Rampachodavaram shot up to prominence again as the arena of these troubles although a far larger area became the scene of numerous skirmishes and long-drawn battles between 1922-1924 under the able leadership of Alluri Seetharama Raju, of whom Mahatma Gandhi wrote in *Young India* dated 18th July 1942: "During the recent tour, I was presented with a portrait of a young man as that of a great patriot. Upon enquiry, I was told many stories of his exploits. I thought them to be interesting and inspiring as an instance of sustained bravery and genius, though in my opinion, mis-directed. Though I have no sympathy with and cannot admire, armed rebellion, I cannot withhold my homage from a youth so brave, so sacrificing, so simple and so noble in character as young Seetharama Raju". Koraput, an area adjacent to Northern Circars, witnessed the revolt of Lakshman Naik leading the tribals as late as 1942. In order to put down such 'fituries', the then British Government established centres of armed reserve police in the agency areas and the tribals dreaded this reign of terror till independence.

POST-INDEPENDENCE PROBLEMS

For the first time after independence, the tribals here have become pacific and there have never been any major disturbances in the tribal areas for the past twenty years except some leftist-communist activities in the Parvathipuram area. In the days of the British Government, there was only official leadership to look after the tribal needs and answer their genuine demands in terms of transport, roads and communications, land-assignments, forest-permits, employment, and drinking water supply. In this respect, the Andhra agency areas were particularly lucky in that the Sub-Collectors and Special Assistant Agents who governed the Narsipatnam, Vizianagaram and Parvathipuram tribal areas were invariably devoted civilians who trekked to tribal villages, concentrated

on the digging of wells at the foot-hills and assessed and documented the potentialities and problems of the terrain and the tribal people. Mention must be made of R. S. Malayappan's Report on this area, and K. N. Anantaraman's work in the Parvathipuram agency. After the introduction of the Panchayati Raj the tribals needed little training in democratic decentralisation. They have been observing the conventions of the Panchayati Raj in their own way all over the centuries. The tribals fitted themselves into the Panchayati Raj set-up as the fish take to water. The impact of independence has not been inconsiderable on the village-leadership of the planning period during 1951-61. During this decade, the tribals marched to polling booths to elect their leaders to panchayats and to State legislature. Although their political life is stable and settled to a remarkable degree their economic condition is yet to be ameliorated. Politically speaking, the tribals have had little inhibitions and self-restrictions. There have been able women-leaders including Panchayat and the Samiti Presidents and even lady members of the Legislature. The tribal areas have enjoyed a period of peaceful political activity for the past twenty years, when contrasted with the exploitation and semi-starvation, bloodshed and violence, that marked the pages of their history before independence.

ADMINISTRATIVE ANSWERS TO ECONOMIC QUESTIONS

The three major problems of the tribals in the agency areas are with regard to indebtedness, land and forests. The tribals, therefore, need three forms of protection—from the exploitation of money-lenders, from expropriation of their agricultural land and for the protection of their rights in the forests. Poverty, wasteful expenditure on marriages and ceremonies, and their habitual traditional laziness left the tribals in perennial debt. The non-tribal, who slowly penetrated into the agency areas from the plains became rich money-lenders. They hold the tribals under indebtedness and recover their dues along with high interest under intimidations and threats of legal action. The Dhebar Commission found amongst the causes of indebtedness, meagre income due to unfertile soil, ignorance of fair prices, adherence to panchayat decisions regarding fines, for fear of ex-communication, and lastly, large-scale social celebrations and festivities like marriages and deaths. In order to mitigate the tribal indebtedness, there have been legislative enactments such as the Agency Debt and Bond Labour Abolition Regulation (1946), the Andhra Pradesh Scheduled Tribes' Debt Relief Regulation (1960), the Andhra Pradesh Scheduled Areas Money Lenders' Regulation (1960) and the Madras Agricultural Debt Relief Amendment Regulation (1963). The Regulation for the abolition of bonded labour has not been altogether effective since the system of "Vetti" and "Gotti" forms of bonded labour still prevail in some parts of the agency areas. The Debt Relief Regulation of 1960 provides for the scaling down of debts contract-

ed by the tribals before 1-1-1961 and is being effectively implemented in the tribal areas. The Debt (Amendment) Regulations, 1963, provide that while granting a decree against a tribal debtor, the court shall not order the detachment and sale of immovable properties or the dwelling houses of the debtor. Special establishments have been sanctioned and appointed under the Regulation. The Money Lenders' Regulation of 1960 controls the business of money-lending in the scheduled areas in the Andhra region.

THE TRIBAL LANDS : AGRO-ECONOMIC PROBLEMS

Eighty per cent of the tribals in Andhra Pradesh depend on agriculture and their per capita holding comes to 0.66 acres. The tribal is not able to retain even the small extent because of the manoeuvres of the merchant-classes from the plains. The problem is to prevent their lands from passing permanently out of their hands. The government, therefore, enacted the Scheduled Areas Reduction of Estate Management Regulation (1961), the Madras Scheduled Areas Estates Abolition and Conversion into Ryotwari Regulation (1951), and the Andhra Pradesh Scheduled Areas Land Transfer Regulations (1959). The first two Regulations are of a protective character—one giving protection against rack-renting and the other against transfers. The Agency Tract Interest and Land Transfer Act of 1917, which prohibits the tribals from transferring their lands to non-tribals except under certain conditions, proved ineffective, and hence it was replaced by the Land Transfer Regulation of 1959. Under this new Regulation, alienation of land by tribals to non-tribals is prohibited except with the prior permission of the Government authority. Government have powers to set aside transactions made in contravention of this regulation and to restore the land to the tribals.

However, there is no effective machinery at the lower levels for implementation of this regulation on a larger scale. In the Andhra area of the State, there is no legislation regarding the allotment of land to the members of the Scheduled Tribes. Under the normal rules, the tribals should be given priority in land allotment in the Agency areas and also in respect of lands found surplus under the Land Ceilings Act. As the Renuka Ray Committee has pointed out, "The extension of the rule of law in the field of land-rights in the agency areas has resulted in the progressive extinction of the original rights of the tribals by virtue of their first occupation". As suggested by the Elwin Committee, the rights of the tribal communities in their lands should be restated and *pattas* granted to them. The centrally sponsored land colonisation schemes at nearly a dozen places in the Northern Circars have rehabilitated many tribal families on the government-lands. Under these schemes, the tribals are supplied with bullocks, ploughs and carts. In the Report of the Study Team on Social Welfare and Welfare of Backward Classes (July 1959), the welfare and development programmes for the scheduled tribes

are discussed briefly, as also the office of the Commissioner for Scheduled Castes and Scheduled Tribes. According to this Report, the over-all order of priority should primarily be economic development, including communications, education and public health. These three major programmes should receive not only a higher priority than the rest, but should also receive simultaneous attention, for success in each one of them is dependent upon the progress in the other two spheres. The Report also laid emphasis on a carefully integrated programme of development of the tribal economy, the pace of programme implementation in agriculture, forestry, handicrafts and village industries. The exact degree of emphasis on each of them should be determined on a systematic survey of the needs and possibilities in each area. It is an imperative need of the tribal areas that cultivable land should be surveyed and a plan of land-allotment to the tribal-village communities should be undertaken and gradually carried out. It is significant that many portions of the agency tract in the Srikakulam district have not yet been surveyed. Tribals are by nature a closely-knit entity, where co-operation for common tasks has been, for centuries, a part of their social order. Encouragement of cultivation on co-operative lines is likely to be successful amongst the Savaras and the Jatapus of the Srikakulam district. Co-operative cultivation is permitted in certain land-colonisation schemes where the land is sufficiently available in a contiguous stretch. The tasks given to the settlers should be adequate so as to enable the tribesmen to derive maximum benefit out of the allotted land. Subsidiary occupations should also be provided in order to supplement the earnings from cultivation. Subsidies should be given for soil-conservation measures on individual and community holdings, and the tribals' contribution should be accepted in the form of labour. Prohibition or regulation of cultivation on higher slopes should be linked with schemes for cultivation of cash crops which have proved successful in experiments; for example, tobacco cultivation is very popular in the Andhra region of the Pachipenta agency area and sugarcane is slowly being introduced in the Kurupam agency tract in the Srikakulam district. But in all the cases of colonisation-schemes, land-allotments and housing-schemes preceded the irrigation schemes, for example, Kedarapuram colony was completed long before the Simalguda Anicut, which was planned to be main source of water-supply to the colonists and their lands, was completed in the Srikakulam district. For similar instances of lack of perspective planning, we need not go far to seek. In the same district there are several instances of incomplete irrigation-works and the lack of adequate water-supply to the residents and their lands, at some of the land-colonisation schemes. The Kambagadda Anicut was completed quite recently, as late as June 1966, long after the Kuddapalli colonisation scheme was established. At the Jatapukotapadu colonies of the Bhadrageri agency in Srikakulam district, the lands have not yet been cultivated although land-allotments have been made nearly five years ago. In short,

each colonisation scheme has a lesson from experience in the proper technique of perspective planning. The land-availability, the water-supply, the housing-schemes and the colonisation, as well as the provision of gainful occupation for the residents should be simultaneously developed. Any lopsided development will only make the tribal go back to take to his erstwhile nomadic ways. Research and experimental farms should be set up on a regional basis. Demonstration farms should be established locally, and some practices may have to be demonstrated actually on people's own holdings. Individual cultivators should be consulted, who aided with equipment, seeds, and technical guidance in improved agricultural programmes, would undertake the application of research findings. Scientific "jhum" ing has not been introduced yet on a large scale in the agency areas of Coastal Andhra Pradesh. The 'Nefa' method of 'half-plot' system of keeping side by side on two portions of the same plot, the old ways of 'Podu' cultivation and the new methods of modern agriculture have also not yet caught the imagination of the agriculturists in the agency areas. However, cashewnuts, coffee, fruits like pine-apple and even cocoa, have been slowly introduced in the agency tracts of coastal Andhra Pradesh. In the field of animal husbandry, tribals, who have a traditional love of cattle should be chosen to develop the practical methods of upgrading the livestock. The 'care-not-for-the-morrow' approach of the tribal makes him eat even the good animals supplied to him rather than using them for upgrading the existing stock. However costly it may be, the most certain way of ensuring proper upgradation of the Agency species of livestock will be to keep mobile units of artificial insemination-centres periodically visiting the interior villages. A close supervision and guidance should however be provided to explain to the tribals to take better care of cattle and to realise the importance of the use of animal power in agriculture.

CATTLE WEALTH

In many of the land-colonisation schemes, the cattle distributed by the Agriculture Department have been eaten by the tribals and because of the lack of irrigation facilities, the tribals had to return to their nomadic ways of living. In many cases, the tribals have eaten even the milch-cows. Quite recently, an economist from New Zealand, Mr. P. D. D. Glover of Wellington, pointed out that the cattle in India are not only peripatetic fuel-supply but also an efficient biological rubbish-disposal-unit. Professor H. J. Bhabha has calculated that of the 130 crores of kilo-watts representing India's total requirements of primary energy in heat, power and light, not less than 100 crores kilo-watts were obtained by burning the cow-dung. *The Economist* observed that until India can produce adequate power resources capable of economic distribution, the system must endure. Indians are too poor to buy, burn and cook on any other fuel such as coal, and the wood resources are fast being depleted. A solar stove

costing £ 6 is too expensive where the per capita income is only £ 18. The above analysis is very true of the agency areas in the Northern Circars where there has been no remarkable progress in cattle-wealth whereas there has been a considerable depletion of wood and timber. If only the tribals had attached some sanctity to their cattle-wealth, their economic condition would have been much better. It is a well-known fact that many of the unwanted cattle from the plains are sent to the hills for grazing and also for disposal of useless heads of cattle, and the tribals have taken to eating this cattle in certain agency areas, and this has given rise to the leather and tanning industry in the hilly tracts of the Northern Circars. Merchants dealing in skin and hides come to the hilly areas of Northern Circars for collection of these hides, and also 'beedi' leaves, yet another field of commerce in which there has been great exploitation of the tribal economy by rich merchants coming every year from the neighbouring states like Madras and Orissa. The tribals undersell the 'beedi' leaves, as well as the 'skin and hides' of the cattle. Quite recently, certain tribal blocks have introduced training centres for tanning and processing of leather. Much is yet to be done in these two important fields of commerce and industry to make the tribal economy receive its due returns in terms of money, for its valuable exports of skin and hides, as well as 'beedi' leaves, from the Northern Circars towards the South.

FUTURE OF THE TRIBALS IN THE FOREST SETTING

The Dhebar Commission has suggested that the sons and daughters of the jungle should have a share in the profits of the forests by providing them with employment opportunities and also some share of the earnings from the forest-produce. The tribals should be recruited as forest guards and retained for protection service. They should be recruited for soil-conservation work and afforestation-schemes. These suggestions are, by and large, being implemented by the forest department. Certain privileges have been conferred on the tribals in the Northern Circars such as free grazing in the reserved and unreserved forests, hunting on a small scale, permission for restricted 'podu' cultivation in allocated areas, free supply of timber for building and agricultural purposes, free fuel for domestic use and collection of minor forest produce. The Government of Andhra Pradesh set up a Scheduled Tribes' Co-operative Finance and Development Corporation Limited in 1956 with headquarters at Visakhapatnam, the first of its kind in Asia for the benefit of the tribals. The Corporation collects the minor forest produce and the surplus agricultural produce from the tribals at a fair price and supplies to them their daily domestic requirements by opening depots at convenient centres in the agency areas and also at their traditional *shandies*. Important items of minor forest produce sold to the Corporation are 'adda' leaves, tamarind, honey, myrobalan, hill-brooms, etc. The Corporation has monopoly rights of purchase. It acts as

the agent of the government for procurement, supply and distribution of agricultural and other produce in the agency areas. Twelve primary co-operative marketing societies are affiliated to the Corporation covering the entire tribal area in the Andhra agency. These societies are also issuing short-term loans to the tribals for a variety of purposes after enrolling them as members. During the year 1965-66, stocks of forest produce worth about Rs. 27 lakhs were purchased by the Corporation. Ten years ago, the value of such produce was merely to the tune of Rs. 17,000. During the year 1965-66, the value of sale of the forest-produce by the Corporation amounted nearly to Rs. 33 lakhs. There was a gross profit of Rs. 5 lakhs during the year 1965-66 for the Corporation after deducting all over-heads, forest-rentals, expenditure on vehicles, sales-tax, etc., except establishment and contingent charges met from the Corporation's funds. Apart from the net profit-and-loss accounts of the Corporation as perceived from its balance-sheet, the services rendered to the tribals at its D.R. depots by the Corporation have been quite phenomenal. Salt, match-boxes, clothes, rice, dried fish and other food products are being sold at fair price to the tribal villages by means of the Corporation vehicles. Even if the Corporation does not answer the needs of the tribal areas completely and satisfactorily, the system of services introduced by the Corporation into the tribal areas has made familiar to the tribals the fair prices of commodities and considerably reduced ruling prices of the erstwhile blackmarketeers in the agency areas. Quite recently, during times of drought the Corporation has undertaken distribution of coarse rice and milo in the tribal areas, and thereby reduced the problem of civil supplies in the tribal *taluqs*. The Sub-Collector or the Sub-Divisional Magistrate is the ex-officio chairman of each of the Primary Co-operative Marketing Societies in his division and the Collector of the concerned district is a director of the Corporation. Non-official tribals have also been represented on the Board of the Corporation from the tribal areas. The Fifth Member of the Board of Revenue is the chairman of the Corporation with the Collectors as directors and some non-official tribals as nominated directors. "Forest Department generally considers the tribals as the first enemy", Says the Elwin Report. The friendly attitude of the Forest Department can harness the tribal communities to the fostering of the forests. No afforestation programme can succeed on most of the bare hills of the Eastern ghats in the Srikakulam district without the co-operation of the tribal communities. The forest department should, as far as possible, employ only tribals in the forests in tribal areas. Suitable training should be given to employ them in higher levels. Steps should also be taken to introduce the system of guided management whereby the tribals and their representative bodies will be progressively associated in the management and exploitation of the forest areas. However, the shrub-jungles for domestic use should be carved out and placed under the management of the tribal village councils. The entire revenue from the village

forests should be given to these councils and should be used for the development of their villages. The wages for the tribals should be partly paid in kind and the balance in cash by the government departments. Commercial exploitation of the forests should be entrusted to forest labour co-operatives rather than to contractors. The societies should be either sponsored by the official or non-official organisations and coordinated by the State Governments. Co-operatives on the same lines should be set up to exploit minor forest produce. Only nominal deposits should be demanded from these co-operative societies. In most cases substantial loans will have to be advanced for the co-operatives to launch the initial exploitation of the forest on a profitable scale. Transport and marketing facilities should also be provided for their co-operative societies.

These are the ideal lines suggested by the Report of the Study Team, as early as 1959, for the tribal self-development. Andhra Pradesh is the only State which put into practice immediately the system of exploiting the forest resources, especially the minor forest products, without exploiting the tribals. The Andhra Pradesh Scheduled Tribes' Finance and Development Corporation, shortly called the 'Girijan', was the first of its kind in Asia at that time. Subsequently Madhya Pradesh and recently Orissa are constituting similar Corporations in their States based on the experience of the functioning of the Andhra model.

TOURISM IN TRIBAL AREAS IN NORTHERN CIRCARS

The tribal world of the Northern Circars is the only area in India where tourism has been thoroughly neglected, and not much of the tourist traffic is also being reported, in spite of the fact that there are places in the Araku valley which have great potentialities as summer-resorts. There are Buddhist and Jain monuments all over this region from Saligundam in Srikakulam district down to the Bora caves in the Anantagiri Agency area in the Araku valley. These calcified caves are most unique geologically and archaeologically speaking. When the D. B. K. railway is opened for passenger-traffic, the tribal areas will afford ample opportunities for comfortable travel. There are places with an altitude of above 5,000 feet in the Srikakulam district near the Orissa borders on the Mahendra Giri range of hills. There is an over-concentration by the Government on the development of summer resorts on the same old British models in Chittoor district at Tirupathi, Horsley Hills, etc. in the South. Very great potentialities are available for the development of summer-resorts and tourism on the Mahendragiri range of hills especially because the place has a breath-taking view of the Bay of Bengal. Just twenty miles away from the coast, at an altitude of above 5,000 feet, it presents to the tourist a panoramic view of the rising sun on the sea in the mornings and of the orange disc sinking into the dark grey valleys at dusk in the west. On the Mahasivarathri day, the tribals go by foot to the top of the Mahendragiri to worship

their traditional gods. From the top of this hill, the confluence of the river Mahendratanaya and the ancient port of Barua at the estuary of this river, are also visible. Another need of this area is to locate a Girijan college, somewhat on the lines of a Girijana Viswavidyalaya for the development of the tribal languages, arts and crafts. Kedaripuram, a village on the border of Orissa, on the Parvathipuram-Gunupuru road is an ideal central place for such an institution. There is already a boarding school with 100 tribal students staying at that institution in the village of Gummalaxmipuram nearby. Another interesting possibility is to open up, for the colleges at Kakinada and Visakhapatnam, certain places in the agency areas, particularly for picnics and educational excursions. These places are likely to become tourist centres later on. The concerned Zila Parishads should also think of starting some zoological parks, and constructing bathing ghats near the beautiful water falls, for example, in the Addatheegala and Yeleswaram Agency areas, in the East Godavari district, in order to encourage tourist traffic from the plains and also employ the tribals for the preservation of the wild life as well as the scenic beauties.

THE MUTTADARI SYSTEM

The Report of the Committee on special multi-purpose Tribal Blocks (1960) has highlighted the short-comings in tribal administration. The most important of these short-comings is to be traced to the history and nature of the Muttadari tenure. J. P. L. Gwynn has presented in his report, the problems facing the present administration within the agency areas caused by the traditional system of the Muttadari. At the end of his essay, he concludes that he does not propose any change in the Government-muttas until the survey and settlement operations in the agency areas are completed. Even to this day, there are large extents of unsurveyed lands in the Northern Circars and the settlement operation is not yet over in many of the tribal areas. The Muttadari system is very peculiar to the East Godavari and Vizag Agency Areas. A large number of tribal villages are constituted into a Mutta which is managed by an intermediary called the Muttadar. These Muttadars, who are allowed to deal with the Government directly, were granted Sanads by the British Government during the 'fituris' or tribal revolts. It was stipulated in the Sanads that the fixed amount of rent should be paid to the Government and that the Muttadar should conduct himself loyally and peacefully, rendering every help to the Government in maintaining law and order. If he violated these conditions, his mutta would be resumed by the Government. The Muttadars thus act as intermediaries to the Government in collecting land revenue and in helping to maintain law and order. In return, they enjoy a good part of the revenues they collect. Taking advantage of the tribal ignorance, the Muttadars began their exploitation of the tribals over the best

part of the last century. Gradually, the tribals were expelled from their lands which they have been traditionally cultivating. The Muttadars leased these lands to the non-tribals coming from the plains. Reporting on the Muttadari system in 1957, R. S. Malayappan, Special Agency Development Officer, observed "The Muttadars, or at least some of them, are still enforcing 'Vetti' or forced labour and appropriating to themselves the best lands in any village. So long as they exist, they will not allow the tribals to come up". Realising this, the State Government decided to abolish the Muttadari system and to introduce ryotwari system but no decision has still been taken so far although ten years have elapsed. In the meantime, the Muttadar continue to enjoy their holdings, and their hold over the tribals.

PROBLEMS OF PUBLIC HEALTH

Apart from this economic burden of the Muttadari system on the tribals, there are some noteworthy problems pertaining to this area in the field of health and hygiene. Due to the national small-pox and malaria-eradication programmes, these two dreaded diseases have become very rare in these areas; but the tribal areas in the Northern Circars are highly endemic in yaws and leprosy. Nearly 30 percent of the India's victims of leprosy are in Andhra Pradesh and nearly 50 percent of the cases in Andhra Pradesh are found in the Srikakulam district, mostly in the tribal areas. There are at present three voluntary institutions working in the Parvathipuram division for control and cure of leprosy—one by the Lutheran Mission, second by the Gandhi Mission and the third, chronologically speaking, by a Danish organisation. Even these voluntary organisations have overlooked the tribal areas in Parvathipuram *taluk*. An administrative report for leprosy-control in this area, prepared by the Sub-Collector, Parvathipuram, in February 1966, revealed on the basis of the random sample survey done in the Kurupam area that the percentage of endemicity is more than one, and that the effective incidence is not less than four percent. The problem of drinking water supply has been quite acute in some of the villages on the hill-tops in summer months. In some of the tribal areas in Orissa, and in the Araku valley in Andhra area, advantage has been taken of the gravitational flow of the hill-streams to bring water to villages through bamboo pipes. Similar efforts have yet to be extended to the rest of the tribal regions. With regard to health services, tribal India offers a unique challenge and unparalleled opportunities of experience and service to our doctors and nurses. Nevertheless, even in certain developed tribal blocks in the Northern Circars, enough doctors are not available at some of the Primary Health Centres. The reason is, mostly, the unwillingness of doctors to come and serve in these areas. The only way of solving this problem is to select on the basis of representation for each tribal area, candidates for medical courses under the Government loan-scholarship schemes on the condition that the

students selected from those areas for such schemes would serve for a period of 5 years in their own areas. This suggestion is worth-pursuing even in the field of para-medical personnel such as nurses, midwives, health-visitors, etc. for whom there is dearth of personnel in the agency areas. It is highly desirable to select tribal candidates for such courses at every district hospital on scholarship schemes sponsored by the tribal Samitis themselves. At present, there is no such scheme being suggested or implemented in any tribal Samiti.

A SPOTLIGHT ON THE PADERU PROBLEM

With regard to the big block of Paderu Samiti in the Visakhapatnam district, it can be confidently stated that thanks to the D. B. K. project as well as the effective impact of democratic decentralisation, there is a great deal of activity and enthusiasm in this area. It is now possible to reach a very large number of routes by fair weather roads. Communications and irrigation schemes are quite impressive. The words of Dr. Verrier Elwin, "The agricultural administration and seed multiplication farms are some of the best I have seen. There are, however, certain schemes which seem to be uneconomic and unnecessary, such as the housing scheme in areas where many of the tribals have excellent homes of their own. There are, however, schemes the money for which could have been used more profitably. The cottage-industry schemes also seem to be of rather doubtful economic utility. In particular, the pottery-scheme is extremely expensive and could have obtained the same result at a quarter of the cost". Besides this, there are other criticisms common not only to a Paderu Samiti but to all the Samitis in this area, in general. Really poor tribals living on the hills get very few of the benefits of their development schemes, whereas too much is going to the well-to-do folk especially those near the Samiti headquarters. There is insufficient touring on foot by the officials and most of the bridle-paths of the British period are being neglected for lack of funds. In spite of the many warnings, the Samitis have not desisted from overwhelming the people with too many schemes, for example, in the Paderu Samiti, there are proposals to start a jack-fruit-canning scheme, a gooseberry-canning scheme, to make a mechanical device for winnowing. There are many similar proposals, most of which, though good in themselves, will be a heavy burden on the tradition-bound tribal population.

LESSONS OF EXPERIENCE IN TRIBAL DEVELOPMENT

In the field of tribal development, certain important practical problems should be borne in mind. Before an area-planning is envisaged and the block-budget is formulated, an initial period of pre-planning, say of six months, should be undertaken. No unwilling worker from a remote place should be posted as Block Development Officer in an Agency Samiti. The development of the tribal areas should be suitably adapted, keeping in view the requirements of

public health and utility. In the selection of staff, services of suitable tribal candidates should be utilised, to the maximum possible extent. The non-tribal candidates should be encouraged to learn one local dialect. There should be some extra-allowance for the staff working in the agency areas and for learning the tribal dialect also. The accepted principle of imparting instruction at the primary level in the mother tongue of the child should be extended to the tribal children as well. Wherever there are minor variations in the dialects of the different tribal communities residing in contiguous tribal areas, the main tribal language should be chosen as the medium of instruction at the primary level. Regional and national languages should be introduced only at the secondary stage. As for the script of the tribal dialects, the Devnagri script should be introduced as far as possible, except in the areas where the prevailing script of the regional language is more easily adaptable and acceptable. Little has been done in this regard either in the Jatapu or in the Savara dialect in coastal Andhra Pradesh. Thanks to the tireless work of scholars like Gidugu Sitapathi, the Savara dialect has been well-preserved, and publications have been made on its philology, and yet no attempt has been made on the part of the government to preserve these dialects in coastal Andhra Pradesh. There should be some assessment of the help rendered to the tribal areas by the office of the Assistant Commissioner for Scheduled Castes and Tribes in the State. This report should contain individual cases where such speedy redressal of grievances was effected, and there should be an official enquiry or follow-up conducted by the District Magistrate of the concerned area at least once in five years, to estimate and evaluate the quantum of useful work turned out by the office of the Assistant Commissioner for Scheduled Castes and Tribes in the field of tribal development.

In March, 1960, the Report of the Committee on Special Multipurpose Tribal Blocks was made available. The famous anthropologist Dr. Verrier Elwin observed in his 'letter of transmittal': "It is difficult to assess a situation that is rapidly changing, and though most of the blocks took a long time to get into their stride, the tempo has now greatly increased almost everywhere, and while we have been critical of some of the things that have been done or not been done, we feel that the experiment has succeeded sufficiently". The Ministry of Home Affairs provided a sum of Rs. 6.45 crores during the second five year plan for the establishment of 43 special multi-purpose blocks at Rs. 15 lakhs each in addition to Rs. 12 lakhs each provided in the budget of the Community Development Ministry. These blocks covered 23,540.58 sq. miles. Their total population is nearly 17 lakhs, of which 12 lakhs were tribals. The overall coverage for each block works out at 182 villages each, with a population of nearly 40,000, spread over an area of 548 sq. miles roughly. There were three such blocks established in Andhra Pradesh of which two were located in the Visakhapatnam district, viz. Paderu and Araku. Dr. Verner Wilton was

of the opinion that we should not allow matters to drift in the tribal areas, or just not take interest in them, and in the world of today, that is neither possible nor desirable, but at the same time, we should avoid over-administering these areas, and in particular, sending too many outsiders into tribal territory. The fundamental principles of tribal development should be self development through the traditional tribal genius in arts and culture, tribal ownership of the lands and forests in the tribal areas, education and training of tribal candidates to administer and develop the tribal areas, building up potentialities for future, enlightened tribal leadership as in some areas of Assam, and above all, a fiscal and sociological planning instead of purely financial or statistical planning in the tribal communities. Any over-administration of the tribal area will only lead to eventual destruction of tribals as an entity, of his language as a distinct dialect, and his potentialities as a human being towards the historical evolution of individual tribal cultures. We do not know of a single responsible person in India today who has the desire to hold back the tribal development in order to preserve the tribals for an anthropological study or his regions as a picturesque enclave in our rather drab modern world. But fortunately this desire is still a dream. This dream will never and should never come true. It is perhaps a transitional hangover from a nineteenth century British outlook. Even if any one wished to do so, it would be obviously impossible under the present circumstances.

Even in such a sensational reform as prohibiting 'podu' or the Jhum cultivation, it is desirable not to go too far. It is well-advised to infuse some confidence into the tribals by instructing them to develop the shifting cultivation on scientific lines instead of admonishing them to give it up completely. "Taungia" cultivation, which has proved successful in parts of West Africa, as well as in the Garo and the Mikir hills of Assam, is a method of transforming the tribal areas into regular forests. The cultivator is induced to plant seedlings in his "podu" plots when he has done with it, for growing a plantation at a very small cost. But this does not improve the hill-side cultivation but brings it to an end and can be only practised where there is plenty of land available. This system is yet to be introduced in the Coastal areas of Andhra Pradesh. The late M. S. Sivaraman, I. C. S., a well-known agricultural expert and one time Adviser to the Planning Commission, made many suggestions to improve the fertility of the "Podu" land and produce more food, to shorten the paddy cycle, and thereby enable larger areas to be cultivated in a year to help grow the pulse crop of 'archar', cowpeas, etc., while the land is allowed to recuperate. The malaise of soil-erosion, caused by the cutting of trees, should be set right so as to enable the raising of a 'rabi' crop and finally to convert the paddy lands into the areas of stabilised permanent cultivation. The Renuka Ray Committee has given emphatic support to the main problems of tribal agriculture, viz. the preservation of land rights of tribal communities,

the introduction of scientific shifting cultivation and the improvement of agricultural practices for more and better food production. One of the greatest difficulties facing the developmental work in tribal areas is the existence of a number of tax-rules which have come down to us from the British times and are not yet adjusted to modern conditions. In the old days there was no problem of serving officials requiring fuel. There were no schools for which timber was required. There was no development of cottage industries with its consequent demand for raw-materials. For example, in the Paderu Agency under the present rules, no fuel can be sold by the tribals to others till recently when the Paderu Co-operative Marketing Society, an adjunct of the Andhra Pradesh "Girijan" Corporation was established. The quantity of Nistar, i.e. the right of the tenants to the use of certain forest products is not receiving what we might call a rational treatment. On the one side, there are number of highly exaggerated complaints from the public, while, on the other, there is a certain lack of imagination on the part of the revenue and forest authorities.

EPILOGUE

Flowers and fruits play a vital role in the daily life of the Andhra tribals. They worship their gods with flowers. They collect honey during the annual seasons and market the produce in the plains. During the past two decades of community development the Panchayat Samitis have set up here and there, in the tribal villages some apicultural centres where "bee-hive-boxes" are being distributed freely to the tribals. Pomiculture also deserves great attention. Pisciculture has made some progress only in the Godavari districts. The "Girijan" Corporation sends its employees far into the agency areas to collect the honey, and arrangements have been already made to market the bottled honey from the Northern Circars at the Super Bazar at Hyderabad at Rs. 5/- per kilogram. In the Araku, Paderu and the Koraput regions, during the festive month of Bisaki, the Savara girls mob the tourists, offering them flowers. There is a Government Fruit Research Station at Rampachodavaram near Rajahmundry. There is a Central Research Tobacco Institute at Katheru near this place. Immense potentialities of extensive cultivation of various kinds of fruits and different types of tobacco, suited to the soil of the agency area, for the economic betterment of the tribal population, are being envisaged. To conclude in the words of U. N. Dhebar, "the economic integration of the tribals is not merely providing them with some kind of occupation, we have to decide which occupation and at what level. That is another problem, and as far as I can see, the Tribals want a place in the Sun of Industrialised India".

CHITTAPRIYA MUKHOPADHYAY

Growth Pattern of a Rural Town (1851-1961) A Case Study

DURING the latter half of the nineteenth century, the pattern of urban growth that was taking place in India (and more particularly in Bengal) had two different streams. The “factitious stimulus”, provided by the Army and the Court, “to the excessive congregation in the capital, of professions and industries”,—“a state of affairs that was fatal of course to the growth of the smaller towns”,—was, “not likely to continue under the plain utilitarianism of the British system of government”.

On the other hand, “the stimulating presence of the foreign element in the centres of trade”, which was “turning the scale in favour of the middle classes”, was promoting the growth of “the sea ports, the manufacturing centres and the great produce markets in touch with the coast”. Side by side, “the spread of railways and other means of communication and the general development of the trade of the country” fostered the growth of new marts and ‘market towns’.

At this time, just at the “great city of Murshidabad” which once was “graciously pleased to allow Calcutta to exist, but forbade it to grow” was reduced to no more than a “large village”, so were many earlier population centres along trade routes and rivers which began to decline in importance.

At this stage of the emergence of new population centres, when occupational pattern as well as class composition of the inhabitants in these places were undergoing transformation, there was, quite naturally, the difficulty “to decide what places should be treated as ‘towns’. The title of ‘town’ as it was then felt, was “conventional in most countries”. As “population standard” was liable to be “as delusive as the constitutional test”, various norms

based on "purely statistical" considerations or on "purely social and economic comparisons" were tried in order to ascertain which of these places had "a really urban population".

After about a century a large number of population centres are there, which, as in 1891, still present considerable doubt about their categorization as 'towns'. In most of the cases, as Mrs. Ruth Glass observes, "the precision in the distinction between 'urban' and 'rural' places and people, made in, and taken over from, censuses, is more apparent than real".

On the eve of her massive industrialisation programme, which would accelerate urbanisation, India has before her "a variety of problems of spatial implication". In the years to come, just as our country would have to decide on "how much urbanisation and where", she would also have to keep in view that "the many model cities, exemplary city districts and redevelopment projects do not keep pace with the growth of the 'tin-can cities' and the slums...Calcutta, now the world's largest concentration of misery and sorrow, will be the ever-recurring city type of tomorrow. A turn for the better may be expected at best for the day after tomorrow".

With Calcutta holding a predominant position, possibly the position of a 'Primate City', in West Bengal, the high proportion of urban population of the State obscures wide zonal variations in respect of rural population, and so also in respect of occupational pattern and the level of income.

The district of Birbhum, suffering during the last century from famines, epidemics, occasional floods etc., had a very feeble growth in its natural population. Before the partition, it was not amongst the districts where 'available means of sustenance' had attracted people from other districts or from other States of India.

With its southern end a little less than a hundred miles from Calcutta by rail, the district of Birbhum (like the other districts of the Western Agricultural Zone, Midnapore, and Bankura), is a predominantly agricultural region. Recent improvements in communications, and a steep rise in population during 1951-1961 have no doubt hastened the pace of urbanisation in the district. But, with six urban centres (covering only about 7 per cent of the district population) and more than two thousand two hundred villages, Birbhum has a much larger ratio of village to town than either West Bengal or its neighbouring district, Burdwan. So again, while the ratio of rural to urban area in West Bengal is 51, it is 31 for Burdwan, and at the other extreme, as wide as 98 in Birbhum.

In this paper, an attempt has been made to throw sidelights on some

aspects of the growth pattern of an area of Birbhum that is predominantly rural and agricultural and has, in its centre, a 'town' that was, till recently, just an 'over-grown village' and a market place. As a consequence of the partition, and so also of a combination of various other forces, it is coming up to figure prominently in the map of West Bengal.

Having a pattern of its own as the focal point of several hundred villages within the region defined in the census of 1951 as Rural Tract 10 (covering about 450 square miles), the place under study, Bolpur, has another characteristic feature that has fostered its growth; it has grown and is growing side by side with 'Bolpur Brahmacharyāśram', now the seat of the internationally known, Visva-Bharati.

With no place in the historical records prior to the opening of the Sahibganj Loop Line through the district of Birbhum in 1859, and a population of about 4500 at the turn of the century, Bolpur became a 'town' under the census definition in 1921. After being declassified in 1931, it was enumerated, again, as a 'census town' in 1941 and acquired the status of a 'municipality' in 1950. As an inevitable effect of the partition, Sahibganj Loop Line came to prominence and consequently did the Bolpur station. During the decade 1951-1961, the place had a steep rise in population.

It was a mere coincidence that Maharishi Debendranath Tagore, father of Rabindranath, made frequent trips to Raipur, the home of the then famous landlords, the 'Sinhas', even before the opening of the railway line, and decided to purchase from the Sinhas a plot of land in 1863 at the spot where the Visva-Bharati is now situated. Subsequent growth of the Visva-Bharati, synchronising with, or running parallel to, the growth of the town, has had its tangible and intangible impact on the way of life in the entire region around it.

In describing 'tentative stages in the development of a city with a population over 50,000', Griffith Taylor mentions that in the first stage of growth "the first nearby villages become submerged by the growing city. University colleges are founded..." Growth of the towns connected with old universities or the newly established universities (such as Kalyani), is to some extent, different from what is observed in the growth pattern of Bolpur.

While the economy of Bolpur is largely enriched by the considerable amount of 'imported' money that the University spends in the locality, the rice-milling industry, and also the marketing centre of the town depend on, and are considerably sustained by, the large number of people inhabiting the 'hinterland'.

Several offices of the government, the Munsiff's Court, Police Station, Registration Office, Health Centre, and others, have been serving the area since the seventies or eighties of the last century. Additional offices like Food and Supplies Department, Irrigation Department, Block Development Office,

Road Construction, Land Settlement etc., have been located in recent years, in and around this town.

Thus, two streams, one emanating from the Visva-Bharati, the other in the town itself, have been contributing to the growth of Bolpur.

To this may be added the influx of a large number of East Pakistan 'refugee' families, which infused a new tone in the life of the town and adjoining places.

There are again, other factors largely arising out of the developmental programmes of the State. Of these, of course, the Mayurakshi canal system is the most important. A road-bridge across the river that separates the districts of Birbhum and Burdwan, has brought Durgapur-Raniganj-Asansol area, the 'Ruhr' of West Bengal, much closer to Bolpur than to some other towns of the district. Telephone and electricity, while reaching other towns as well got a sort of priority in Bolpur mainly because of the needs of the Visva-Bharati. Construction of a Tourist Lodge or a Youth Hostel, similarly, received more urgent attention of the State due, to a large extent, to the growing importance of Bolpur as the 'urban adjunct' of the Visva-Bharati. Tourist income consequently is much larger in Bolpur than in other towns of the district.

In the field of educational facilities also, which in the near future will be a "major factor...determining... rural to urban migration", Bolpur town is building up its own record of progress; the impact of the Visva-Bharati in this respect is particularly high. The overwhelming influence of the Visva-Bharati in the field of education and in the various fields of hitherto unknown rural reconstruction work (which incidentally, covered Bolpur as well), particularly since the early 'twenties' was felt in the area that was considered backward even by the standards of other districts of undivided Bengal. Recognition of the Visva-Bharati as a Central University in 1951 brought in its trail a tremendous spurt in its developmental activities; these in their turn continued to exert immense influence on the local economy and on the pattern of life.

The present comparative advantage of Bolpur over some of the other neighbouring towns of the district which are served by railways and had almost the same level of population about two or three decades ago, has no doubt arisen out of, amongst others, revival and modernisation of some of the important routes connecting earlier population centres. Its proximity to commercial centres and roads of earlier days has also its share in hastening the growth of the town. The other obvious explanations are, of course, the rapid growth of the Visva-Bharati, and also the numerical superiority of rice mills.

Consisting predominantly of 'upper caste' Hindus who shifted their venue of trade from the earlier commercial centres of Surul, Supur of Ilambazar, (and who still continue to have considerable interests in agriculture), Bolpur

town has about a fourth of its population which is classified as 'scheduled caste'. Chronic poverty and disease in the rural areas during the latter part of the nineteenth and the early part of the present century, led to the inevitable 'push' from the villages, of those 'scheduled caste' and landless people who were 'spill overs' from the rural areas. The employment that was available to this class, though not more remunerative than that in the villages, was essential for, or the natural concomitant of the trade that flourished in the town. While this group of 'urban' residents, socially fragmented, economically depressed, and physically weak, still carries on all sorts of unskilled and manual work of the town, sturdier 'up country' men have been steadily taking up the petty trades and all those sundry items of work that hardly call for manual labour. 'Migratory labour' from other States is also on the increase. Simultaneously, as trade in rice is gradually assuming importance and is requiring investment of larger volume of working capital, local millers, often former landlords, lawyers or petty businessmen with small capital, prefer leasing out or selling the mills to wholesale grain merchants of Calcutta (mostly immigrants from other States), and are investing their limited capital in trading. Similarly, again, with gradual, and perhaps inevitable, slackening in the conventions regarding transfer of tenancy rights in land to immigrants from other States, the share of these immigrants in the sale and purchase of land in and around the urban area is steadily on the increase.

If the "unpopularity of town life among the people of Bengal" in the earlier decades of this century, was not a possible "reason for the decay of those towns which are now called residential or "country towns", the present decline in the number of 'local' people in various economic activities (that require either business acumen or physical labour...) in so small, and a growing town like Bolpur (or for that matter, in other towns of the district) seems to require to be explained in some other way.

Side by side, Bolpur town, like the other towns of the district, is leaning more towards the functions of wholesale or retail distribution of industrial goods, produced in the larger, industrial cities, than towards any effective industries. While the "social motivations" in the policy pronouncements of the government with regard to 'rural industrialization' programme, are, according to William Brado clearly laid out, "it is not clear" according to him, "to what extent the government has taken economic consideration into account". If the 'terms of trade' between agriculture and industry need a balancing, there is the imperative necessity for a reappraisal of both 'social' and 'economic' motivations underlying the idea of dispersal of some industries or of 'regional development'. It is true that "a lot of little towns", cannot "accommodate and generate the same amount of development at the same pace, as

one large city with the same sum total of population, it is at the same time correct to assume that, the programme of a balanced regional growth would have to be carried through some of these small towns which are considered to be "economically ready for growth".

Simultaneously with the growth of trading functions in the town, secondary sector occupations in the villages around Bolpur, particularly during 1951-1961, have perceptibly been on the decline.

Villages around Bolpur have a high proportion of the Santhal, the predominant group of 'scheduled tribe' people in the district. But the town has only a very small number of them. Except those who live on the fringes of the urban area, others have much remoter contacts with the town as compared to other groups of people of the hinterland; the process of 'acculturation', or that of 'detrribalization' of the Santhals is much slower than is the case with several 'semi-aboriginal' tribes of the area who have been 'Hinduised' earlier. Muslims, only a few in number in the town, form a substantial segment of population in some regions of the Rural Tract 10; their better health in general is reflected in their performance in agriculture and allied functions involving heavy manual work and dexterity. In spite of their smallness in number in the urban area their participation in various activities in the town is quite pronounced and is, as all evidences suggest, more than what the number warrants. The new settlers in the region, the migrants from East Pakistan, though obliged to settle mostly outside the 'urban' area, have been contributing effectively to the changing pattern of life of the town.

With growing importance of Bolpur, it has received the attention of the State and will naturally receive more in the years to come. So far, however, 'departmental myopia' of the various departments, apathy of the 'elite' society of the town, as also the inadequacy of funds and restricted authority of the local-self government organisation have not only stood in the way of a comprehensive town-planning, but have created some problems for the future as well. In the meantime new problems are being created, both by the ever-increasing number of residents and by the flow of 'day time' population from surrounding villages.

Amidst contrasts that characterise the stratified life of a 'semi-urban' society, Bolpur of today is undoubtedly quite different from what it was when large-scale absorption of 'evacuees' from Calcutta at the peak of the Second War, a boom in the rice market during 1942-43, the reverberations of the Quit India movement and so also the excitements and expectations over the construction of an air-strip (a scheme abandoned half-way) near the town stirred up life in this small, placid market-town. The chain of socio-political upheavals that followed during the next two decades, many of which brought,

as elsewhere, a 'revolution in expectations', need not be recounted here.

With all the changes that have come to the town during the last twenty-five years or so, it largely reflects the pattern of rural life that surrounds it. Even now, the literacy level amongst workers and non-workers of both sexes is particularly low; industrial and commercial establishments are diminutive in size, seasonal in character, and predominated by 'self-employed' and 'family workers'.

About two-thirds of households have an extremely low level of income; and so also mud-built thatched houses, with extreme congestions in some sectors, predominate the landscape of the town. Water scarcity is still an acute problem with inevitable outbreak of epidemics on occasions; so also is there the problem of water-logging due to indiscriminate construction of houses. With the influx of large number of people from nearby villages, and from other places, land price is soaring high and the land-use pattern is devoid of all considerations for the present, and even less so for the future. Social tension, that invariably generates in a place where a motley assembly huddles together with least consideration for a corporate life, is evident in Bolpur as well, though softened to some extent under the impact of the Visva-Bharati.

Located very near Surul—the 'head factory' of the East India Company during the late eighteenth and early nineteenth centuries, Bolpur had, according to Settlement Survey maps of Captain Sherwill (1851-52) only 163 'kutcha' or mud-built houses. Together with the three other villages that now form 'urban' Bolpur, there were, in this area, only 332 'kutcha' houses. Surul, on the other hand, had as many as 744 houses (of which 14 were "pucca" or masonry buildings. Situated either on the side of the river Ajoy or by the side of the three 'trunk roads' that crossed near, or connected Surul with (i) Sonamukhi in Bankura district and Berhampore in Murshidabad district (ii) with the district headquarters, Suri and Burdwan, and (iii) with Katwa, there were, according to Hunter, several 'well-built' villages with silk, sugar or indigo factories, *ābkari* outposts, or government offices like Munsiff's Court or the Police Station.

Just on the north, north-west of Bolpur, an area now largely covered by the Visva-Bharati, there was, as Hunter wrote in 1876:

"...a patch of high gravelly soil, which is hopelessly sterile. It occupies an area of 4424 acres (i. e. app. 7 sq. miles) in the western portion of the Pargana (Barbucksingh) and extends as far as Soorool, a large village situated close to the high ground and near the ruins of an old commercial residency of the East India Company".

With the commercialization of agriculture that followed the setting up of the railway network in the country, trading activities of Bolpur, and so also

in other places along the railway line in the district, centred around rice, the staple crop of the area. As rice became important, cultivation of other crops, indigo, mustard, grams, cotton etc., gradually declined.

In 1876, Hunter made the following reference about the growing commercial importance of the "villages" in the vicinity of the railway stations".

"Bolpur, Ahmadpur, Synthia and Mollarpur; railway stations on the loop line of the East Indian Railway. These villages have rapidly risen in importance within the last twenty years, since the opening of the railway and have attracted a great deal of trade which formerly went by river to Katwa and other trading towns of the Bhagirathi and Hugli".

The process of shift, during the initial stage was somewhat slow. Superiority of railway over river-borne trade or transport by road was not immediately established and the earlier seats of population, particularly those having influential *zamīndārs* or landlords, as in Surul, continued to hold on to their position of strength for some time; this however continued for a few decades only. With the decline of the river-borne trade, many of the villages of Birbhum, thriving on the side of the river Ajoy were, like Katwa and similar other big towns, depopulated. One such important trading centre in Birbhum was Ilambazar.

The inevitable structural change in the trading pattern of the district is reflected in the following report of the General Department of the Burdwan Division for 1876-77.

"Silk, lac, indigo, are chief manufactures but the former two are declining and latter cultivated on a small scale... The trade in rice is reported to have been unprecedentedly large and the cart traffic is said to have poured the rice far faster into the depots at Sainthia, Ahmadpur and Bulpore than the railways have been able to carry".

The effect of the glut of rice in the export centres, as can be guessed from this Report (and as is also indicated by other contemporary records) was naturally not quite favourable to the producers. This trading pattern of the new 'marts' of Birbhum, as many subsequent studies indicate, is more or less the same now as it was in the seventies of the last century. The only material difference, since the end of the First War, is the concentration of the processing of paddy (the only major 'industry' in Bolpur and in other towns) in the rice mills of these centres. In the District Gazetteer of 1910 we come across only a passing reference to weaving as an industry, amongst other places, in Bolpur also. Other contemporary records indicate the existence of trade in export of hide and hand-pounding of tobacco-leaf.

According to the Census of 1951, "Bolpur was on the fringe of the 'Burdwan Fever' area in 1872, but lost density heavily between 1881 and 1921 for other reasons". There were, however, as we have stated earlier, a little over

4500 persons in 1901, in the four villages now constituting 'urban' Bolpur, which had, in 1851, only 332 houses. A comparison of the number of houses in 1851 and the number of inhabitants in 1901 in the villages neighbouring Bolpur indicates that, inspite of the extremely insanitary conditions prevailing in Bolpur also, there was considerable inflow of population mainly from places situated within the present jurisdiction of the Bolpur PS area (Police Station area, administrative and revenue boundary). The sex-ratio in these places, in 1901 and 1911, again suggests that, apart from distress immigration, large number of the 'upper caste' trading communities shifted their place of work and left their families in villages. Other records also confirm that the early settlers in the town, still retaining considerable interest in land, and gradually changing their profession and so also the order of precedence about their 'principal' home, were mainly weavers; many of them had settled earlier in Surul, Supur and other places during the days of flourishing trade by the East India Company. . . . The "practice of keeping up two establishments" that was observed in respect of migration from 'rural' to 'urban' areas during these years, was evident in Bolpur also, which, however, was not a 'town'. Other places in Birbhum on the railway line also indicated similar variations in sex-ratio vis-a-vis that in 'ruralized' villages away from the railway line. Unlike the business communities of other States, considered to be ethnically different, and migrating in numbers to these small towns in latter years, the early settlers had a preference for trading, rather than for industries.

It was only during the decade 1951-1961 that Bolpur had some amount of 'population mix'. Proportion of population in the town, enumerated as 'born in Birbhum', declined during the period from 85 percent to 71 percent, and so again, the percentage of population born in other districts of West Bengal moved up from 3.6 to 11.3. Immigrants from other States of India covered 2.7 percent in 1951 and 10.9 percent in 1961.

During this decade, Bolpur crossed over to the size-group III (20,000-49,999) and thus acquired a level of population which, as early as 1891, was "selected as being about the smallest that may be presumed to have any considerable influence on the rural tract of which it is the centre".

Within the 130 square miles (Bolpur PS area) around Bolpur, however, shift in population towards Bolpur during 1851-1951 was quite pronounced.

Admitting possibilities of difference in the definition of 'houses' in 1851 and 1951, and also taking into account some of the available assumptions about persons per house in Birbhum, a comparison of the number of houses in all the 155 *mauzas* of the present jurisdiction of Bolpur PS shows, among other points of interest, that density of houses per square mile in the entire PS area was almost static at 128.6 in 1851 and 129.1 in 1951. Having the full blast of the 'Burdwan Fever' during the decade preceding 1872, Bolpur PS maintained a particularly low density (much lower than the district average)

during 1872-1921. Evidently, the PS area, which had quite a few populous villages in 1851 had, at that time, a level of population that was about the same as was attained again in 1951.

A closer look at comparable figures for different village-clusters (regrouped for our analysis according to the 'Anchal Panchayats') suggests that concentration of houses in and around Bolpur town in 1951 was at a much higher peak than what had prevailed in the prosperous village clusters in 1851. Distribution of population was evidently more even in different parts of the PS area than what is observed in 1951. Compared to the highest density of 240 per sq. mile (when the lowest was 58) in 1851, that in 1951 in Bolpur was 592 (rising to 856 in 1961), while the area with lowest concentration in this year had density of only 87 houses per square mile. From what is available from these figures, it is observed that the pull of the 'town' on the surrounding villages during the one hundred years was considerable.

With varying rates of growth during the six decades 1901-1961, and displaying in the earlier decades a rate of urbanisation to some extent different from what was observed in the rest of the country, Bolpur had a population of about 16,000 in 1951 and about 25,000 in 1961. Immigration from villages within the Bolpur PS was relatively high during earlier decades, while people from the 'outer ring' of the hinterland, the three other PS areas of Rural Tract 10, came in larger numbers during the latter decades. Other sources, confirm that, with recent improvement in roads and in means of transport, while there has been steep increase in the 'day time population', wealthier cultivators of remoter villages have, in larger numbers, renewed setting up 'urban wing' of their establishment in Bolpur. Educational and medical facilities, freedom from the feeling of insecurity in remoter villages, facilities for investment of surplus funds in petty trades and landed property, and added to all these, the air of 'urbanity' in Bolpur, have been encouraging 'selective' migration of the 'upper class' villagers.

Transfer of government offices from their old sites started from about 1870 and by the end of the last century, the process of shift was almost complete. This centralization, a part of the general policy of the time necessitated by better communications along railways, in its turn caused further pull on the local population.

Existence of once-prosperous business centres, and administrative centres in the vicinity of Bolpur provided an initial advantage over adjacent population centres along railway line.

Awareness about the likely effect on growth of population due to location of government offices encouraged residents of such centres to make representations for shift of an office from Bolpur. Leaving aside the possibilities of some

decisions turning out to be wrong or influence by 'pressure groups', the role of the government in fostering the growth of a region was certainly not very insignificant during this period. Under quite different conditions now, when the 'readiness' of a locality to expand and to serve its hinterland is considered, the part that the government can play in promoting the growth or retarding the unhealthy features of growth of a locality assumes further significance.

In recommending the transfer of the Munsiff's Court at Amdahara, a village on the road from Sonamukhi (Bankura dist.) to Berhampore (Murshidabad dist.), the District Judge, who had to reach the place "through the fields and over hedges and ditches from the railway station at 'Bolepore'" wrote in 1867, "Bolepore is greatly increasing in importance and requires a commodious court..." About a decade later, when land for the court in Bolpur was purchased "at Rs. 40/- per bigha" the District Judge mentioned about the 'bazar' which was "thickly populated" and was of "some commercial importance".

Surul, taking pride in its past glory, and still being stated by the Inspector General of Registration as having the "advantage of being situated on the trunk road from Burdwan to Sooree, and the centre of a number of prosperous towns and villages", was able to have the 'rural sub-registry office' in 1873. The inevitable pull of the new 'town' of Bolpur led to the shifting of the office there in 1876.

Because of the "central position (of Surul) with regard to several villages which have now become important from the fact of their being situated near the railway station at Bulpore" the government approved, in June 1876, the proposal of the Inspector General of Police, "regarding the transfer of the Police Station of Kusba to Soorool..." But in December 1876, an order was passed "sanctioning the transfer of the Police Station at Kusba to Bulpore instead of to Soorool". Obviously, the same set of considerations, proximity to the railway station, which favoured shifting of the registry office, prevailed in the present case also.

More or less at this time, educational facility, yet another important factor promoting growth of a town, was extended to Bolpur. The English High School was opened at Bolpur in 1878; as elsewhere, this was accompanied by decline of the 'vernacular schools' in the smaller villages.

Much before the opening of a dispensary by the state in Bolpur (1894) when "condition was precarious owing to unusual prevalence of fever in the locality", and when "a local missionary stirred up interest in the institution and lent a small pucca building for its location", the Methodist Episcopal Church, had opened a centre in Bolpur (1878).

Closely following the centralisation of various offices in Bolpur, postal services were shifted from its former zonal office at Kusba to Bolpur. As late as in 1870, Bolpur was not connected with other places by any one of the 13

'district lines' but was served by one of the five 'short' lines.

There is an old saying, "if you would be known, and not know, vegetate in a village; if you would know, and not be known, live in a city". With its added advantage of being the 'urban adjunct' of the Visva-Bharati from the days of its 'infancy', Bolpur remained till recently one such 'rural' town. In its agrarian setting Bolpur was, as Spate has put it, "little more than a large market village, with some very local administrative functions added..."

In the mid-sixties Bolpur, with its plague spots, ruralised 'pockets', wide economic and social stratifications, and a predominating proportion of people without literacy, has become a place where, people from hundreds of villages daily come not only to carry on a wide range of functions connected with their livelihood, but also, as it is said, "to breathe the air of freedom". A re-orientation in the approach of the State to all that is understood by 'regional development', can make it a better place to live in and a more useful agent for dissemination of culture, and implementation of its rural development programme.

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HAMEEDA KHATOON NAQVI

Industrial Towns of Hindustan¹ in the Eighteenth Century

THE Great Mughals had, since 1556, worked most assiduously towards establishment of peace, economic prosperity and greater urbanisation of the region. The monetisation of land revenue had gone a long way in the multiplication of markets both urban and non-urban.² Stimulus to augmentation in the volume of manufactured goods was provided by means of ready markets and ensuring the availability of raw material whose cultivation was specially encouraged by the Mughal Emperors.³ New crafts such as weaving of carpets were introduced, sometimes by obtaining foreign experts. Further, by virtue of abolition of custom dues within the Empire and on the Kabul-Qandhar routes, relative security of the roads, greater facility of travel, care and protection afforded to the internal merchants and traders, and the concessions accorded to the foreign merchants had all resulted in a steep rise in the economic activities of the region. Thus the urban craftsmen had full-time job in satisfactorily meeting the growing demand for manufactured goods, just as the cultivators had their hands full in providing raw materials and provisions for the enlarging orbit of the urban consumers. Similarly, the merchants, traders, *sarāfs*, brokers and so on grew in number or expanded their operations as intermediaries between the producers and consumers. Evidently all these non-agricultural activities were located in towns which became the productive centres of the Empire.⁴ The *kotwāls* with their assistants and retinue looked after the proper civic administration in general. Under these favourable conditions the growth in urbanisation in respect of both the number of towns and the expansion of the existing ones in the region under consideration became marked.⁵

Though all the towns during our period embodied the usual all round character of administrative, commercial, industrial, educational, religious centre to a varying degree, some of them had gradually acquired greater significance in one respect or another. Thus, for instance, Delhi, Agra and Lahore were the chief administrative centres of the region; Lahore, Agra, Benaras and Allahabad were noted for their commercial intercourse; Lahore, Samana, Delhi, Agra, Lucknow, Khairabad and Benaras for their manufactured goods; Lahore, Delhi, Lucknow, Jaunpur, and Benaras for learning; while Muthra and Benaras continued to flourish as centres of Hindu pilgrimage. Quite frequently we also find that a single town may have had more than one important sector in its life; indeed the size and endurance of individual towns depended largely on the number and proportion of their significant activities. A purely industrial, commercial, educational or administrative town was liable to succumb much more easily (as Kara, Fatehpur Sikri, Biana or Samana) than a town deriving its importance from more than one source such as the capital towns or Benaras. Since the latter category had several modes of income it had a more solid base enabling it to exercise greater resistance.

The eighteenth century was, however, a stormy century for Hindustan, blowing away all peace and prosperity leaving behind its trail only desolation and destruction. Almost each successive decade saw the collapse of a good portion of the carefully built up structure of the Great Mughals. Emperor Aurangzeb's successors passed through precipitous decay so that by about the middle of the century they were no better than impoverished *zamīndārs*, though they still retained the crown and occupied the throne. External and internal foes crowded the region not to gain rulership but merely for the sake of bloodshed, booty and extension of their own usurped property. From around 1730 to 1770 was the period of the most violent clashes, battles, incursions and general disorder. By 1770, Hindustan lay altogether exhausted unable to raise even a finger to defend itself. It was at about this stage that all the erstwhile constructive achievements of the Great Mughals had been washed away, only some resilient though scattered and unprotected vestiges appeared from time to time speaking of the past glory and present ruin.

The progress of urbanisation was as seriously shaken by the 18th century chaos as was the general economy of the region. Trade came to a standstill, artisans had to flee from the affected towns, civilian service personnel sought service in vain and imperial urban administration gradually disappeared. Under these circumstances the urban citizen was left with three alternatives, migration to the towns lying east of the Ganges, enlistment in the armed forces of any of the chieftains enrolling levies or also to turn towards the villages. Perhaps the number of those migrating to villages was considerable as while the urban output of manufactured goods in the western region had

apparently declined the period is marked with no scarcity of agricultural commodities. It is also likely that not all the urban artisans after reaching the villages gave up their crafts, though now much less profitable, they might have preferred continuing it even after the change of place. This feature would, to a certain extent, explain why since about the later part of the 18th century Hindustani crafts have generally been regarded more as a rural rather than urban phenomenon.

It is in this perspective that we have to view the towns of our region where industries still managed to flourish during the 18th century. But before we proceed further it is better to point out some of the basic handicaps with which the student of pre-British days suffers. The material relating to the non-political aspects of the period is widely scattered and extremely fragmentary. Moreover, even this scanty material still lies buried in obscurity no doubt because of our king-and-battle orientation of Indian history. Again, independent Persian works on many subjects such as industry, industrial organisation, metallurgy, urban economy or its inner functioning, commerce etc., being rare, we have to look for them in other sources. But in this process a further difficulty is added by our unawareness of the classification of subjects by Persian contemporary authorities. Thus it is hard to say at the outset where exactly the data for a particular subject are likely to be found. Except through experience one, for instance, could not have imagined that the medicinal treatises could occasionally contain important bits of information pertaining to some industries or that the periodical *Fatāwās* throw useful light on some of the organizational aspects of industries and business transactions.⁶ Such instances show that the classification of non-political topics in the medieval world was distinctly different from the present form of arrangements. Finally, there are no statistical details relating either to the towns, industrial output or to the commercial intercourse which could have helped us in making our study less vague. Therefore, we have to confine ourselves to the fragmentary, widely dispersed and incidental documentary notices contained in the contemporary literature.

The data relating to the industrial towns of the eighteenth century, collected from the available sources may be seen from the table appended at the end. A column of evidence with regard to the period prior to 1700 has also been included in order to provide the background of our towns and enable us to assess the trend of their progress.

A glance through the table given at the end shows that as the new century was ushered in, the capital towns of Lahore, Delhi and Agra were by far the largest manufacturing centres in regard to both the variety and quantity of goods produced. Amongst the remainder Benaras, primarily a commercial centre, leads. Jaunpur, Sirihind, Lucknow and Thaneshwar may be placed next in order, while Samana, Kalpi, Khairabad, Shahzadpur and

Ghazipur do not seem to have acquired higher level of production in more than one or two crafts at a time. Considering the general density of urban and also non-urban population in Hindustan we may perhaps reasonably infer that the progress in number and size of urban industries was determined by the size of internal market. Or in other words, the principal source of stimulus to urban industrial output was furnished by the growing demand from within the zone under survey. Surplus goods were certainly exported but only after meeting the local requirements as we do not as yet come across evidence of shortage in the supply of manufactured goods. The same factor (rising local demand) may also at any rate to some extent explain the rise of such towns as Sirihind, Samana, Thaneshwar and Kalpi in the manufacturing world. By virtue of proximity to the capital towns these manufacturing centres could always be sure of a ready and not too far off a market for their produce.

After the first decades of the eighteenth century when these western towns fell victim to the political disorders, the trans Gangetic industrial towns came into the forefront. As a matter of fact this century is marked with the gradual movements of industrial town from west to east. Whereas Lahore, Delhi and to a much lesser extent Agra declined in population and industrial progress to a varying degree, Farrukhabad, Lucknow, Khairabad, Jaunpur, Shahzadpur and Benaras gained in both, population and manufactures. Of course much seems to have been lost in transit as these towns say in *c.* 1760, were in no way comparable to their western counterparts of a century earlier, notwithstanding the rise in population in the intervening decades. This fact would again suggest that a part of this loss in the urban manufactures had found its way to the villages.

This loss to the urban manufactures could have to some greater degree been retrieved, had the new emergent principalities since *c.* 1720 in the east of Jamna had any chance to survive. But these were precariously held and succumbed to their more powerful neighbours often almost immediately after the death of their founder. Consequently, only Farrukhabad and Lucknow acquired some industrial significance. By virtue of being the capital of a larger principality which enjoyed longer lease of independent and still longer subordinate life, Lucknow certainly multiplied its manufacturing output. Several new industries are mentioned here as being practised during this century. This industrial prosperity was, however, impeded on account of its subjugation to the English in 1764. Further, the location of town is not at all the most convenient one for riverine traffic, so vital during the period. While it certainly ensured relative security, it did not encourage commercial intercourse to the extent to which the banks of Ganges or Jamna could have done. Jaunpur too may have similarly suffered, though in this case the early occupation of the English who were altogether indifferent to the Hindustani urban industries must have been the primary reason for its decline.

With a good record in the preceding centuries, the location of Benaras was well suited for its industrial progress. Well away from the disruptive forces of the west it could continue in its manufacturing career in relative peace. The establishment of a semi-independent rule further improved the chances of carrying the existing industries to higher order or for introducing new ones. When the town passed into the hands of the English, it gained from their protective attitude since it was their western outpost, without immediately losing much owing to their general indifference to the urban manufactures. Indeed, Benaras was one of those few Hindustani towns where the industrial progress throughout the century was not marred.

Looking at the table from the point of view of the manufactures, we find that upto 1700, the production of cotton goods carried to some significant degree was universal. The smaller towns of the west where production of cotton goods was their sole economic activity proved much more vulnerable to the political upheavals than the larger towns in which it had occupied the position of one amongst other sources of income. After 1700, when the western points receded into background eastern centres of piece goods production assumed relative prominence. It is, therefore, evident that as long as political tranquility obtained the production of piece goods was adopted by the Hindustani towns as their principal industry. Since the main varieties of cotton produced in our area were of medium and coarse grade, it helped the industry to retain its market of middle and the lower class consumers. This stability of market coupled with the continued supply of raw cotton enabled the eastern urban weavers to take up where the western ones had left off. It is nevertheless, possible that some of the western weavers had moved into the eastern towns adding to the number of local urban weavers, catering to the demand of a rising population and augmenting the volume of output.

Carpet weaving had originated in towns, several towns had acquired proficiency in the craft and its total output was high enough to allow a sizable volume for export. The impact of the confusion of the new century may be observed in its almost disappearance of production on any considerable scale from Lahore and Delhi. Therefore, in the absence of any categorical statement even if we assume its continuous manufacture at Agra and Jaunpur, it would undoubtedly reflect a certain reduction in their total output in the area. And yet so far there has not been any notice in the sources as to its high prices or non-availability in the market. This as well as the fact that cotton carpets were needed by ordinary men would indicate that the industry had been pushed into the interior of rural security.

Production of woollen and silken textiles was even before 1700, not very frequent. But during the 18th century when the western points of these goods declined, Lucknow and Benaras took up the manufacture of silken, and luxury material. Woollen goods are not listed in any of the Hindustani towns

except Lahore, as being produced during the 18th century.

The allied crafts of dyeing and printing certainly registered a decline since the earlier times. Out of five major centres of dyeing, printing or dyestuffs making only Delhi and to some extent Sirihind seem to have retained their positions while Farrukhabad and Lucknow emerge as new dyeing centres on a lesser scale. This throwback may have been occasioned by the curtailed output of cotton fabrics in the western region and also the serious harm done to the cultivation of the delicate plant of indigo (and other dyeing agents?). During the eighteenth century, Delhi excepted, but other centres like Biana, Lahore and parts of Ajmer *suba* disappeared as indigo producing areas. The eastern districts that took up, extended or continued its cultivation seem to have been largely exporting it as may be gathered from the E. I. Co. Records of the Lucknow trade. The sparing use of this dye in the 18th century dyeing industry is also borne out by the contemporary compilation *Nuskha Khulāsatal Mujerrabāt* and subsequent writings.⁷

There is a greater scarcity of material in regard to the manufacture of weapons, armours and general military equipment. Because aside from the vast imperial requirements the demand from the general public could not have been inconsiderable since no restriction was placed on carrying arms. By about the beginning of the 18th century by virtue of the political chaos the requirements of these goods must have gone up enormously for both the offensive and defensive purposes by numerous chieftains as well as by private individuals. In the earlier period only Lahore and Sirihind are noted here as producing these commodities while in the later century Delhi, Kalpi, and Lucknow are added though Sirihind is no longer mentioned. Evidently these are only few centres of this industry as noticed by our sources; the majority of them are as yet not known.

From amongst the remainder of the industries, copper and brassware, oil and perfumes, leather goods and paper had, apart from general production, gained special places in some of our towns. Since most of these goods were of common urban consumption, the progress of their decline was not yet perceptible.

Finally, sugar making was the most resilient product of Hindustan. In the eighteenth century Lahore is no longer stated to be producing sugar, the eastern towns seem to be doing more than making up for the loss. Indeed, even the centres located on the west bank of Jamna continued their flourishing industry. No doubt it was on account of the rural nature of the manufacture, the canes were grown and processed in the villages. But as all our various sources invariably regard it as urban product, it is possible that the refining and other finishing touches were given in the towns which also happened to be its chief market.

Thus to sum up, the best efforts of the urban artisans during the 18th

century were directed to adjust themselves to the changing conditions and carry on the old tradition of working in the towns on the established pattern. In fact they had succeeded to the extent of maintaining some of the earlier manufactures alive and even introducing others on a larger scale in newer places. Nevertheless, theirs was a losing battle. Obviously the main trend during this period, owing to the political shift from peace to anarchy, was more towards the ruralisation of whatever industries remained rather their continuation in the urban centres.

TOWNS WITH THEIR INDUSTRIES IN THE 18TH CENTURY HINDUSTAN

Town	Manufactures	Remarks	Source pre 1700	Remarks	Source from 1700-1800
1. Lahore	Cotton goods	Cotton fabrics	<i>Haft Aqlim</i> , I, 146a		
		Ormesins	Pelsaert, 9		
		<i>Āljahs</i> & white fabrics	Manucci, II, 424	—	—
		Embroidered stuffs	Ibid., Thevenot, 85		
		Printed fabrics	Thevenot, 85		
	Carpets	All kinds of carpets	<i>A. A. I.</i> 57		
		Superior quality woollen ones	' <i>Ajā'ib</i> ', 182 b; also see <i>E. F.</i> 1618-21, 167-68		
		Silken, cotton, mixed, plain & flowered ones	Manucci, II, 424		
	Woollens	Twenty varieties for sale at Agra	<i>A. A. I.</i> 95-6		
		More than a thousand <i>karkhānas</i> of shawl weaving	<i>A. A. I.</i> 98		
Coarse varieties		Manucci, II, 424	Coarse blankets	Griffiths, <i>Early Euro- pean Accounts</i> , 93	
Silken goods	Brocade & velvet with gold ornamenta- tion	<i>A. A. I.</i> 92, 93	Its revival may be inferred during the last decades from the import of raw silk from Bengal	<i>B. B. of Rev. & Misc. Peds.</i> Range 98, vol. 22	
Bows, arrows, swords	—	Manucci, II, 424	Bows & arrows	<i>Bahjat</i> , 64	
Ships	—	<i>A. A. I.</i> 280	—		
Boats	—	Manucci, II, 424	Boats	<i>Ibratnāma</i> , I, 44	
Indigo	—	<i>E. F.</i> 1618-23, 326 ; Pelsaert, 32 ; <i>E. F.</i> 1665-67, 5, 270 ; <i>E. F.</i> 1668-69 ,pp. 180, 194	—	<i>Pamphlet on Indigo</i> , 10	

1	2	3	4	5	6
	Sugar	"Best in all Hindustan"	Thevenot, 85; also see Pelsaert, 31; <i>E. F.</i> 1637-41, 134; <i>Khulāsat</i> , 110	—	—
2. Delhi	Cotton goods	Cotton fabrics chintzes	Manrique, II, 180 ' <i>Ajā'ib</i> , 181 b; Manrique, II, 180; <i>E. F.</i> 1637-41, 134	—	—
		Dyeing of cotton goods	' <i>Ajā'ib</i> , 181 b; Manrique, II, 180	—	<i>Mir'at</i> , 462-63
	Brass & Copper utensils	Brass	' <i>Ajā'ib</i> , 181 b	Copper utensils	<i>Punjab Dist. Gazt.</i> V A. 1912, 146-47
	Leather ware		Bernier, I, 258-59	Shoes (circumstantial evidence)	<i>Seirul Mutakherin</i> , I, 263; <i>Punjab Dist. Gazt.</i> V A. 1912, 194 and 150
	Arms etc.	—	—	Swords, shields, guns etc.	G. Md. Khan, 38 b; <i>Rozenamchah</i> of 1857, p. 84
	Indigo	—	Manrique, II, 180; Thevenot, 68	—	—
	Sugar	excellent variety	Thevenot, 68; Bernier, I, 283	Best, refined	<i>Chamanistān</i> , 51
3. Agra	Cotton goods	Large quantities, best kind of stuffs	R. Fitch, Ryley, 99; <i>E.F.</i> 1618-21, 61, 76, 83; <i>E. F.</i> 1624-29, 93; <i>E. F.</i> 1634-36, 206; <i>E. F.</i> 1637-41, 51, 278 etc...; <i>Dutch Records</i> , 1629-34, Vol. IX, p CCCXVIII, 3	—	—
		Abundance of white cotton fabrics	Manucci, II, 424	—	<i>Haqiqat</i> , 42a; <i>Hadiqat</i> , 161
		Quilts	<i>E. F.</i> 1618-21, 46, 108, 161, 178	—	—
	Gold & silver laces mixed with silk		Manucci, II, 424; <i>Khulāsat</i> , 23	—	<i>Hadiqat</i> , 161; <i>Haqiqat</i> , 42a, also see <i>Ahwāl</i> , 55

	Silk stuffs	—	—	was also being exported	—
	Dyestuffs	—	<i>E. F.</i> 1618-21, 261	—	—
	Sugar	White, good, in large quantity	<i>E. F.</i> 1618-21, 261; <i>E. F.</i> 1618-50, 255; <i>E. F.</i> 1655-60, 118	—	<i>Chamanistan</i> , 51
	Scents & perfumes	also perfumed oil	<i>A. A.</i> 11, 190; <i>Tuzuk</i> , 3	—	<i>Hadiqat</i> , 161
	—	—	—	Iron goods (circumstantial evidence)	<i>Delhi Akhbārāt</i> , 1761-88, p. 185
4.	Sirhind	Cotton goods	An assortment of goods	<i>Manrique</i> , II, 182	<i>Mir'āt</i> , 460; also see <i>Bahjat</i> , 64; <i>Hadiqat</i> , 146
			Red <i>Salu</i> and chintz	<i>E. F.</i> 1637-41, 134	—
			These two varieties in large quantities	' <i>Ajā'ib</i> ' 186a	—
		Leather goods	shoes, sandals etc.	<i>Monserrate</i> , 102	—
		Bows & quivers	—	<i>Monserrate</i> , 102	—
5.	Samana	Cotton goods	Chintzes & other fabrics	<i>Withington</i> , <i>Foster</i> , 227; <i>Roe</i> , II, 447	—
			Varieties termed as 'Semianos'	<i>E. F.</i> 1618-21, 58, 93, 161, 168, 178, 337; <i>E. F.</i> 1622-23, 9; <i>E. F.</i> 1624-29, 93, 127, 149 etc.	—
6.	Thaneshwar	<i>Nausādar</i>	from salammoniac pits	<i>W. Finch</i> , <i>Foster</i> , 158; <i>De Laet</i> , 49; <i>Manrique</i> II, 182; <i>E. F.</i> 1637-41, 134	—
		Fruit conserves	from mango, <i>har</i> , (myrabolan) & ginger etc.	<i>E. F.</i> 1637-41, 134	—
7.	Kalpi	Cotton goods	—	—	in several varieties
		Sugar	Excellent quality & in large quantities	<i>Haft Aqlim</i> , I, 163a; <i>A. A.</i> II, 192 <i>Khulasat</i> , 25	<i>Bahjat</i> , 65 <i>Bahjat</i> ' 70; <i>Hadiqat</i> , 171
		Arms & ammunitions	—	—	<i>Āftābnuma</i> , 269b
8.	Farrukhabad	Cotton goods	—	—	Circumstantial evidence
			—	—	<i>The Bangash Nawabs</i> , 280, also see <i>Shujāud-daula</i> , II, 369
			—	—	printed cotton goods
			—	—	<i>Liotārd</i> , 132; <i>Hoey</i> , <i>Trade</i> , 85

1	2	3	4	5	6
		Paper	—	Circumstantial evidence	<i>The Bangash Nawab</i> , 280
9. Lucknow	Cotton goods	—	W. Pinch, Foster, 176; <i>E. F.</i> 1637-41, 278; <i>E. F.</i> 1646-51, 299; <i>E. F.</i> 1655-60, 270	A special variety called Sallam •	<i>Persian Correspondence</i> , V, 378; Hoey, <i>Trade</i> , 28
	Silken & golden stuffs	—	—	printed stuffs Delicate, bright coloured, gold embroidered, abundantly produced of various kinds	Hoey, <i>Trade</i> , 85 <i>Auzā</i> , 128-29
	Gold & silver laces	—	—		<i>Auzā</i> ', 129
	Fancy goods	—	—	e. g. decorated <i>huqqa</i> or <i>palki</i> , at times jewelled ones	<i>Auzā</i> ', 129
	Copper utensils	—	—	of all shapes & sizes in very large quantities since earlier times	Hoey, <i>Trade</i> , 27, 198-200
	Bows & Arrows	—	—	a very detailed description*	<i>Aftabnuma</i> , 269b Hoey, <i>Trade</i> , 128
	Paper	—	—		
	Sugar	—	<i>E. F.</i> 1651-54, 71, 112	—	<i>Aftabnuma</i> , 269b
10. Khairabad	Cotton goods	—	<i>E. F.</i> 1642-45, 6, 7	—	<i>Hadiqat</i> , 154
11. Daryabad	Cotton stuffs	—	<i>E. F.</i> 1937-41, 312; <i>E. F.</i> 1642-45, 208; <i>E. F.</i> 1646-51, 2, 78; <i>E. F.</i> 1651-54, 52; <i>E. F.</i> 1655-60, 40	—	—
12. Jaunpore	Cotton fabrics	turbans, girdles, plain white calicoes	W. Finch, Foster, 177; Plasaert, 7	<i>Jhona</i> variety	<i>Haqiqat</i> , 44b
	Cotton carpets	coarse ones and in very large quantity	<i>E. F.</i> 1618-21, 195; Palseart, 7	—	—
	Perfumed and sweet scented oil	—	W. Finch; Foster, 177	—	<i>Aftabnuma</i> , 244a
	Sugar	—	—	during the last decades of the century	<i>East India Company's Report</i> for 1793

13.	Shahzād- pur	Paper	Great store of best paper	P. Mundy, II, 98	—	—
		Cotton goods	—	—	tents and the like	<i>Hadiqat</i> , 126a
14.	Ghazipur	perfume & rose water	—	—	—	<i>Hadiqat</i> , 125a-b
		sugar	—	—	in large quantity during the last decades of 18th century	<i>East India Company's Report</i> , for 1793
15.	Benaras	Cotton goods	In large quantity	R. Fitch, Ryley, 103; Pelsaert, 7; Manrique, II, 146; ' <i>Ajā'ib</i> ', 185 b; Tavernier I, 118	—	Mrs. Kinderseley, 105; G. Md. Khan, 53a
		Silken goods	—	—	of fine quality	<i>Shah 'Ālam Nama</i> , 70-71; ^a also see <i>B. B. of Rey. and Misc. Pcds.</i> Range 98, Vol. 15
		Brass ware and also copper utensils	—	Pelsaert, 7	—	—
		Sugar	—	—	—	<i>East India Sugar Report</i> for 1793
		Opium	—	—	In vast quantity	See <i>Bengal General Journal</i> , Range 176, Vol. 43, p. 216 and other volumes

*The volume of paper manufactured may be gauged by the fact that here waste paper was used regularly for further manufacture.

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1. Hindustan here stands for the region lying between Lahore and Benaras.
2. See the last chapter and also Chapters II & III of the author's Book, *Urban Centres and Industries in Upper India, 1556-1803*, Asia Publishing House, 1968.
3. *Ibid.* Chaps. IV, VII.
4. *Ibid.*, Chaps. II, III, VII.
5. H. K. Naqvi, "Progress of Urbanisation in United Provinces, 1550-1800", *Journal of the Economic and Social History of the Orient*, Leiden, July, 1967, pp. 81-98.
6. For information obtained from *Fatāwa i Alamgiri*, see *Urban Centres and Industries etc.*, *op. cit.*, pp. 135, 150, 153, 158.
7. See, H. K. Naqvi, "Dyeing of Cotton Goods in the Mughal Hindustan, 1550-1800", *Journal of Indian Textile History*, VII, Ahmadabad, 1967.
8. Ghulam Ali Khan wrote his *Shah 'Ālam Nama* in c. 1770. I have not found any earlier reference to the manufacture of silken stuffs at Benaras in the available sources. It, therefore, seems a reasonable inference that when, by about the second quarter of the 18th century, the general condition at Akbarabad became untenable this industry too like that of cotton goods was transferred east-wards. From the point of view of relative peace, transport facility, closeness to rawsilk producing Bengal and existence of efficient weavers Benaras was the best choice.

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PRANABRANJAN RAY

Urbanisation in Colonial Situation: Serampore—A Study in Method

FEW social institutions have received such contradictory evaluation as cities. They have been held responsible for moral degeneration of man and for degeneration of relationship between man and man on the one hand¹ and on the other eulogised for being the source of finest expression of man's creativity and for being "natural habitat for civilized man".² For the last one and a half century or so years in which industrialization has come to be regarded as an axiomatic means of economic development, everyone has at the same time come to tacitly assume that this is essentially bound up with increasing urbanization. While it is largely true that the industrial growth leads to urbanization, yet the converse, i.e. urban growth is not necessarily connected with industrialization. There have been kinds and kinds of cities; some developed as centres of trade in handicraft products, some in agricultural products, some grew by being religious and some others by being administrative centres. But so far as the cities of last two kinds are concerned Henri Pirenne³ would have us believe that even they had some sort of economic function, which sustained them.

In the popular association of urbanization with industrialization, economic-cum-technological factors get a high priority. In fact apart from a few writers giving top priority to ecological factors, most other sociologists and social historians who have attempted to develop any systematic theory of urban growth have given primacy to economic factors. Adna Ferrin Weber,⁴ Georg Simmel,⁵ Henri Pirenne⁶ and Max Weber⁷ all sought to find answers for different types of cities and their growth in terms of their economic function. Even the 'transportation' theory of C. H. Cooley and 'communication'

as the determinant variable of the character of 'city' of Le Corbusier⁸ are in the ultimate analysis economic factors. The closest approximation to a systematic theory of urbanism however had been attempted by Max Weber in his *The City*.

According to Max Weber, to constitute a full urban community the settlement has to represent a relative predominance of trade-commercial relationship within and outside the settlement, as a whole displaying the following features (1) a fortification or a definite boundary, (2) a market, (3) a court of its own and at least partially autonomous laws, (4) a related form of association, (5) at least a partial autonomy and autocephaly, thus also an administration in which at least a good number of the citizens have a direct or indirect say.

Any community, including an urban community, is not an unstructured congeries of activities, but a distinct and limited pattern of human life. Around these activities are formed different interest groups. Distribution of economic and political powers between these groups determine the force structure of the city at a given time. The interest-cum-status groups occupy different positions in a vertical scale according to powers and privileges they enjoy; economic and political activities of those at the top for the time being determine the character of the city and they fulfil the leadership roles. There is always some sort of communication going on in the scale between the strata, and as the power and privileges are unequally distributed there remains some tension in the relationship between the different status groups in the field of the dominant economic activity. And social change occurs when the negatively privileged status groups bring about rational economic technology for the betterment of their power position.

Little by way of loopholes can be discovered in Weber's analysis of city and its basic institutional set-ups, characteristic functions of city and roles of principal actors on the city stage. But so far as growth, development and transformation of cities are concerned his theories are quite inadequate, even though they provide some guide lines. In fact, sociologists and social historians who have so far endeavoured to build up any systematic theory of urban sociology have kept themselves busy with either functional or structural or structure-functional analysis of urban situation at a given time. Only recently some of them like Robert Redfield, Milton Singer, Kolb, Davies, Hertz, Lampard, Vinning, Bert Hoselitz⁹ and others have turned their attention to the dynamics of growth and structural and/or functional changes in urban situation. Happily, all of them have felt the necessity for a systematic theory of changes in urban situation from the recent experience of development of urbanism due largely to industrialization and such other structural changes in the economy of hitherto underdeveloped countries. In order to build up a general theory of urban growth and change most of them have

adopted this or that of the well recognised theories of social change with certain modifications and sophistications. Though scholars like Redfield, Singer and Hoselitz would like us to believe that the theories are really of general character as far as urban growth and changes are concerned, yet in one important respect growth and change of cities in colonial domination differ significantly from those that have grown and changed from interaction of indigenous factors. Regimented acculturation have resulted in a totally different sort of urban situation in colonially administered areas.

Indian cities which have grown up and/or have changed their characters—both structurally and functionally—in course of last two hundred or so years can be good testing ground for these hypotheses. Unfortunately the bulk of studies appearing in recent times remain only descriptive in nature. While admitting the value of such descriptive and quantitative studies, little do we learn about the direction of changes and causative factors thereof, so that a social or economic planner for the future can gain something from such studies.

With the advent of European traders in India new coastal cities began to grow up as ports-cum-trading centres. In course of political and military advancement of primary trading interests of these Europeans, their settlements were gradually acquiring the character of port-markets with fortresses, in about a century, these were assuming the added characters of administrative centres. In their manifold economic and social functions these coastal metropolises from the very beginning were dragging into orbit settlements spread out within a daily-communicable distance under the given technology. Industrialization later ushered in a faster pace in this growth of conurbation regions.

Serampore on the right bank of the Bhagirathi, some 16 miles upstream from Calcutta on the opposite bank, now very much within the northern conurbation region of the great bi-city metropolis of Calcutta-Howrah, is situated in 22° 45' N, and 88° 21' E.

The oldest known locality of Serampore is Mahesh—famous for its *ratha-yatra* festival; the name of the locality occurs in *Manasamangal* of Bipradasa Piplai written around A. D. 1495. The Jagannath temple of Mahesh in the present form was built in A. D. 1755. The predeceasing Jagannath temple at the same spot was supposed to have been built by a descendant of Kamalakar Piplai, a disciple of Shri Chaitanya. The adjacent locality of Ballabhpur is also an old settlement. There is one now-defunct temple (Henry Martin's Pagoda) which on stylistic grounds is usually ascribed to the 16th century and the more famous temple of Radhaballabh dates from A. D. 1764. Both these southern-most localities of the present Serampore Municipal limits once belonged to Ballabhpur *mawza'* after the name of the temple. With more open spaces around, with enough green and more *kaccha* houses

than *pucca* ones these two localities still resemble rural areas. Chatra, another locality in the northern limits of the present municipal limits boasts of a 16 century temple of Shri Gauranga. So it can be stated that from the latter half of the 16th century onwards some isolated villages in each other's vicinity and now within Serampore town were attracting notice as small pilgrim centres on the west bank of the Bhagirathi. But not until the establishment of a 'factory' by the Danes in 1755 did Serampore show any real potentiality to grow as a city.

In July, 1755 the Danish East India Company secured a *parwana* from the Nawab of Bengal for the erection of a 'factory' on sixty bighas of land in Serampore. They selected fiftyseven bighas of land in *mawža'* Akna and three bighas in Serampore for river frontage.¹⁰ The reason for the establishment of Danish settlement at the villages of Akna and Serampore is not so simple as is commonly supposed, i.e. as the Portuguese, the Dutch, the French and the English had already secured the vantage points on the Bhagirathi (the Hooghly), as a late entrant to the race, the Danes had no other alternative but to settle at these places. The more plausible reason was its situation near the famous grains and handicrafts market of Sheorafuli Hat and situation on the bank of Bhagirathi. The Sheorafuli hat commanded an excellent communication with the cotton weaving centres spread out all over the present Serampore and Chandernagore subdivisions; it also had been a market for surplus marketable grains, salt-petre and brass and bell metal products. Here was a classic example of transportation or communication playing a determining role in the location of an urban community as suggested by Cooley and Le Corbusier.¹¹ In fact there is evidence to show that the Danes of Serampore were actively taking interest in the construction and maintenance of that part of the Grand Trunk Road which passes through Serampore.¹² That the primary aim of the Danish East India Company in Bengal was tapping of cotton yarn and cotton textile for home market, is also proved by the fact that the first Indian they appointed in their service as a *gomashta* was a weaver by caste, who happened to have the knowledge of cotton textile producing centres in and around.

By 1759 the Danish settlers were looking forward to yet brighter prospect of their trade. In that year they took *pattani* of the remainder of the *mawža's* of Serampore and Akna and the new *mawža'* of Piarapur to extend their settlement. A new house was constructed for the Danish Governor and some more for the 'factors'. "The settlement grew and flourished under the predominance of European influence in Bengal and participated in that security for property which the establishment of the English Government had introduced. It was also greatly assisted by the capital of the servants of the English East India Company". They had formerly been permitted to remit their fortunes to England, which was later withdrawn. "The British officers

were, therefore, constrained to make their remittances through the foreign factories, and this accession of capital gave a new impulse to their commercial enterprises".¹³ These were the golden days of Serampore's commerce. In 1776, no fewer than 22 ships, amounting in aggregate to more than ten thousand tons cleared out of the port with full cargo in the space of nine months.¹⁴ This trade, though eminently profitable to the Danish East India Company, was perhaps still more advantageous to their 'factors', who while in receipt of salaries not exceeding two hundred rupees a month, drank champagne at 80 rupees a dozen, and in a few years returned to Denmark with large fortunes. John Palmer of Calcutta, nicknamed the 'Prince of Merchants', was the agent of the Danish East India Company, who used to go down to the godowns in Serampore for counting and weighing of goods, once assured his friends that he seldom realised less than a hundred thousand rupees a year on such missions. This situation continued up to the year 1807-08.

What then was the production relation in the settlement to start-with? The settlement was neither a consumers' nor a producers' settlement to use Max Weber's paired character traits of cities. The producers of yarn and woven cotton textiles were not residents of the settlement, they lived in villages like Rajbalhat, Dhaniakhali, Dwarbasini, Dwarhatta, Kaikala, Haripal and Debipur away from the town, so did the producers of salt-petre and salt. The 'factors' or their local agents who lived in the settlement were not consumers either. Yet it became a market where sellers sold and buyers bought. But this market because of its economic and operational superiority, in no time replaced the Sheorafuli Hat, on which it initially depended. Here was a monopoly buyer who assumed economic control over the numerous small producers by the mechanism of *dadani* advance. The market was a buyer's market and the producers were located away from it. To use Bert Hoselitz's characterisation of such a situation, the growth of Serampore in its first phase was a parasitic growth.¹⁵

The parasitic nature of early growth is further evidenced by the growth of a parasitic trading and commercial class in the settlement, who became in course of time the real leaders of the city. The Danish trade created a class of trading middlemen, agents, *bantias*, *muttsuddis*, and stevadors. Sovaram Basak, a weaver by caste, and Anandiram Dhoba of washerman caste, both of whom had running business in textile in Sheorafuli became two of the first contractors of the Danish 'factory'. They used to operate independently, securing orders from the factory and getting commodities from the artisans against advances. But soon the Company shifted its policy in favour of the Indian employees. The Company appointed commission agents for securing supplies from the hinterland. Nandadulal Chakraborty, a Brahmin of the Radhiya sect, who later became a *Dewan* of the Company started his carrier

as an agent, so did Patitpaban Roy (Chatterjee) another Brahman of Radhiya sub-caste hailing from Kotulpur in Bankura, whose nephew Golok Roy became the *Dewan* on the death of Nandadulal Chakraborti. Ramchandra Dey, a Tili by caste, had at first an independent business of salt-petre. He built up his fortune by selling salt-petre to the Danes. But when the factors found out that the product had a good home market, bought over the business by dint of a superior economic power and appointed Safaliram Dey, the nephew of Ramchandra, an agent for salt-petre trade. Safaliram had of course another independent business, that of common edible salt and lime, but that was more or less a small business.

Two brothers, Harinarayan and Ramnarayan Goswami, Brahmins of Barendra sub-caste came into prominence since the early days of the growth of the settlement. Harinarayan arrived from his ancestral village of Patuli in Burdwan district with a service at the Commissariate of the Danish Governor and Ramnarayan became the *bania* or the official money lender to the factory.

Each of these persons were, therefore, outsiders, and they made fortunes by participating in the trade carried on by the Danish East India Company as middlemen. While the profits the Company and the 'factors' reaped through this trade went to enrich Denmark, a great part of the profits earned by the Indian *bantias*, *mutsuddis*, *dewans*, agents and stevadors was spent by these *baboos* in Serampore itself and that in turn helped in the growth of the town. A parasitic class thus began to play a generative role in the growth of the city. These people began to acquire urban landed property and build houses—mainly in Serampore, Akna, Ballabhpur and Chatra *mawẓa's*. The Radhiya Brahmin Chauduri family of Chatra, who had been enjoying *zamīndāri* rights in the *mawẓa'* since the late 15th century benefitted most from the land buying spree that began around 1780-85, without diverting their resources and energy to trade. So did the Bhattacharya family of Chatra. The Goswamis purchased three contiguous *mawẓa's* just to the north of Serampore *mawẓa'* from the *zamīndārs* of Sheorafuli and extended the boundary of the Serampore settlement.

The dual pull of tradition and modernity which characterises Serampore city and its leading citizens now, had begun with the acquiring of urban landed property by these people. Apart from those few who had their own business, which had always been joint for the family, the people who entered into trade-cum-employment relation with the Danish East India Company earned their incomes individually, but when they bought lands and built houses, they were guided by the concepts of Hindu joint family and the *Dayabhaga* system of inheritance.

A potentially dichotomous situation was created at this very stage of early settlement. The three *mawẓa's* purchased by the Goswamis in the

name of Śiva was given as *devottara* and therefore became inalienable at individual will, which as a result remained reserved for the future Goswamis and their Barendra Brahmin relatives only. In fact, in course of time the greater part of this area became known by the name of Goswamipara and another part which remained unused by the Goswamis for a long time and later given in *pattani* to another Barendra Brahmin family connected to the former by marital relationship came to be known as Lahiripara. Others too favoured their respective castes while selling or giving lease of lands.

From about the 8th decade of the 18th century weavers from far and near overcrowded weaving-villages began to settle down in Serampore. Prosperous trade in handloom products even tempted the economically depressed people belonging to upper Hindu castes, viz. the Brahmins, Kayasthas and other Nabasakha castes to come to Serampore and seek a living in handloom weaving, which they could not have normally done had they stayed in their ancestral villages. These weavers specialized in the making of fine cloth and developed a variety of anchoring rope after a famous variety manufactured in Hamburg which came to be known as Chatra-Hamburg rope. With the establishment of producing centres and emergence of an artisan class among the settlers, Serampore's character changed from a parasitic settlement to a generative centre, to use Bert Hoselitz's paired terminology, and began to show features of a producing city to use Max Weber's¹⁶ classification. But the largest fraction of income generated by transactions in Serampore, as earlier, remained flowing out of the country and only the major portion of that part of the locally generated income which was earned by the middlemen was spent in Serampore. The artisans only received the benefit of a large volume of production; but here too technological-limitation prevented individual artisans to benefit from the increasing demand of their products. But increase in the volume of demand in itself was significant. The demand for greater quantity of products in the town attracted increasingly greater number of artisans and helped in the process of change in the functional morphology of the town. Though the city-based artisans were going in for some innovations regarding production, such as manufacturing of anchoring ropes and hand printing of textiles, the organization of production remained as it was in the rural regions. Production remained organized on household lines in which commodities were produced against light production advances from the traders, making it difficult for the small individual units to earn any significant surplus that could be utilized for technological innovations. Traders on the other hand were not interested in furnishing any long term capital-advances to the artisans or in setting up workshops on factory lines.

The largest number of weavers settled down in the Chatra area, many of them took up residence in other parts of the town as well, excepting in

Goswamipara and Lahiripara. But wherever they settled they always formed a cluster, where several households with their respective workshops formed a *sub-para* (neighbourhood) of their own, within a *para* or neighbourhood comprising heterogenous castes and professions.

The production relation between these three groups of people, viz. the European administrators and 'factors', their Indian agents and contractors, and the artisans formed the basic structure of the social and economic relations in the settlement in the initial stage and gave the city its distinctive character. By the 8th decade of the 18th century some new crafts—and occupational groups practising those crafts—were coming into existence. But as would be apparent, their growth was secondary to the growth of the town as an entreport-market of handicraft goods, a handloom-weaving centre and a settlement of relatively affluent people. Thus boat-builders belonging to the Malo and Kaibarta castes from traditional centres like Balagarh and Betai-bandar came over and settled on the waterfront in an exclusive locality to find jobs in the port. The betel-leaf growers belonging to the Barui caste of Baruipara had already been there, before the settlement grew into a town, and they were finding their market increasingly expanding with the growth of the Calcutta conurbation region. The handmade-paper industry, got a good start and there were the potters in Kumorpara.

To sum up the situation, up to the 8th decade of the 18th century the growth of the town was purely 'orthogenetic', to use Redfield and Singer's term,¹⁷ with trade in handicraft products and natural produce (salt-petre) being the primary and almost sole economic function of the settlement. *Banias*, *mutsuddis*, agents and stevadors and people in their service formed the most influential bulk of the populace, adding another dimension to the orthogenetic character of the settlement. This orthogenetic urbanization was also bringing about a cultural change by giving birth to a class of traders who were not in the business by dint of the ritual-occupation of their castes. But this change ultimately proved to be more apparent than real. This class which owed its existence to foreign capital was averse to risk-taking and innovation. This class was parasitic in character, so was the character of the settlement till the establishment of producing units in the late part of the 18th century. A seemingly 'heterogenetic'¹⁸ transformation was taking place by the closing decades of the 18th century with the establishment of handloom-weaving household units. It was a swing to a heterogenetic transformation, for the city from now on had two different important economic functions, viz. that of entreport market and that of a producing centre. But this heterogeneous function was more apparent than real, as we have seen these two functions were so related to each other that they can not be regarded as two different functions and these two functions were but two different stages in the same process. But however, seeming the economic heterogeneity might have been, the rise of

the artisan class in the settlement led to a heterogeneous cultural situation. Yet, the settlement of the artisans in Serampore by itself can not be taken as a factor that resulted in greater urbanization. The settlement of artisans might have indirectly helped the urbanization of Serampore by increasing the population of the place and thereby changing the functional character of the town; and by being a status-interest group itself, helped in the formation of a vertical scale with different status-interest groups. The artisans did not or could not directly help the continued urbanization process simply because of the fact that production continued to be organized on the lines that prevailed in the rural areas. Apart from a small number of boat-builders who had become wage earners, the artisans practically shifted their villages to this urban settlement. Yet it would be wrong to say that no cultural change whatsoever took place while a new class of artisans grew in this urban settlement. Finding it profitable a large number of people belonging to the economically depressed section of the upper Hindu castes took to weaving, dyeing and handprinting of textiles, which they could not have done with impunity, had they stayed on in their ancestral villages. This was another aspect of the heterogenetic cultural growth of the city.

The morphology of Serampore town at the beginning of the 19th century is rather interesting. In the central part of Serampore—comprising parts of the *mawza's* of Serampore and Akna in a triangle formed by the Bhagirathi on the east, the Grand Trunk Road from the south-east to the south-west and a canal going from north-east to north-west—were situated the administrative buildings, offices, godowns and banks of the Danes in the central strip and this area was surrounded by the residences and *kacharies* of their Indian agents, employees etc. which extended to the north across the canal. This area was pre-dominantly populated by an upper caste Hindu gentry. Functionally this was a residential-cum-administrative-cum-wholesale market area with some road-wise or lane-wise division of function. Chatra, contiguous to the above region, was functionally a composite area with trading people belonging to all castes excepting very affluent Brahmins residing there. Artisans of Chatra formed small agglomerates. Functionally it was a residential-cum-business and residential-cum-household industrial area. Ballabhpur and Mahesh, separated from this concentric conglomerate, did not form an integral part of the settlement and were rural in character. Baruipara, inhabited by betel-leaf growers, Kumorpara by potters, Mallikpara by candle makers of Muslim extraction etc. were linear extensions of the central concentric conglomerate.

“The first interruption which the trade of Serampore received after a course of uninterrupted prosperity for forty-five years was in the year 1801, when, in consequence of hostilities between England and Denmark, it was sequestered by the English authorities, but was restored almost immediately after, at the peace of Amiens, and the loss was rapidly repaired. For five years

after it throve beyond all former example. In 1803, 113 European ships were loaded and unloaded at Serampore port. In 1808, England robbed Denmark of her fleet at Copenhagen, and a detachment of British troops crossed over from Barrackpore and took possession of the town and of the well-filled store-houses of Serampore and seized on three rich vessels lying in the harbour. From the blow thus inflicted, the Danish East India Company never recovered. Serampore was restored after the pacification of Europe in 1815, but the Company was on the verge of bankruptcy. The traffic in country piece-goods which had been the staple of Danish commerce, had begun to yield to the rivalry of English manufactures, and in a short time after the restoration of the town, the products of English power-looms extinguished the trade in Indian goods. Since 1815, one vessel and one vessel alone has visited the port".¹⁹ In the last thirty years of Danish occupation the settlement's administrative expenditure had to be maintained by imports from home treasury and imposing taxes on inland export of betel-leaf from the town, taxes on *hats* and bazars and on marriages etc. In 1845 the Danes were constrained to sell off Serampore, along with another minor possession elsewhere for a paltry 1.2 million rupees. On the 11th October, 1845 the English took possession of the city. With the posting of a Sub-Divisional Magistrate and Collector in February 1846, Serampore became the administrative headquarters of the sub-division of the same name. So long as the Danes were there, the administration concerned itself only with collection of taxes and maintenance of law and order within Danish charge. After the transference of Serampore to the British, its importance as a centre of administration increased.

With the shrinking of the market for hand-woven cloth in European countries due to the availability of cheap machine made cloth and replacement of salt-petre by newer chemical products, Danish trade was already in a bad shape by about the year 1810 and by the next decade cheap mill-made cloth was threatening the indigenous market of handloom products. In such a state the Indian middlemen in the business, who owed their existence to the Danish East India Company and the relative security of the nature of their trade, gradually began to withdraw and invest their funds in land which had safe security offered by the Permanent Settlement. This parasitic class of traders, who thrived as collaborators, were least suited for bearing risks of entrepreneurship and economic innovations. Though already declining, the indigenous market for handloom products was not yet gone, there was still a market for handspun cotton-yarn and the city based artisans were adopting innovations. There was some scope for organizing the artisans on factory lines and an honest attempt could be made to hold the indigenous market. But most of the families in the business preferred to go under the security of the umbrella of the Permanent Settlement. Goswamis sought *zamīndārī* rights in Midnapore, so did the Chakravartis. Golok Roy's son Bipradas Roy became a big *pattanidar*

and so on. But even when they severed most of their connections with trade, they continued to live in the town and acquired extensive urban landed property. Thus, in course of time they became absentee landlords and urban rentiers. Only one of the original families in trade remained in it. This was the family of Ramchandra Dey and Safaliram Dey, belonging to the Tili caste. But this family also could not resist the temptation of making a profit from urban ground rent. Around 1858-59 when oncoming industrialization, as evidenced through the establishment of the Wellington Jute Mills at Rishra in 1855, tended to raise rents in Serampore, the Dey family purchased 6 annas' share of the Sheorafuli Raj estate, but without shifting their interests from trade and business as others did. They remained in economic communication with the producing classes as traders. Whatever little communication the others had with the producing classes snapped with their becoming absentee landlords and rentiers.

With the shrinking of market many of the household units producing hand-woven cotton and silk textiles closed down, while cotton units suffered more in comparison with the silk units, the latter too were not spared. Many families opted for production of yarn and dyeing and printing of textiles. The salt-petre extraction as an industry died a natural death and so did the hand-made paper industry of Serampore, which since the birth of the settlement provided employment to a sizeable number of families. The vacuum created by the withdrawal of the Danish East India Company working through the comprador-trading community of indigenous extraction, gradually came to be filled in by Calcutta or Howrah based traders who began to advance *dadans* to the artisans. The artisans in their turn began to develop a more intensive communication with Calcutta-Burrabazar and Howrah *hat*. The betel-leaf growers had already begun to depend heavily on the demands of the wholesale traders of Calcutta. This dependence on the Calcutta market, through the Calcutta based wholesale dealers and financiers exerting a controlling interest on small producers together with nearness to Calcutta with easy communication facilities, tended to turn Serampore into one of the many producing centres of Calcutta regarding certain items; in other words producers of Serampore were becoming satellites of Calcutta's finance-market. The economically generative sector of Serampore town was thus becoming a satellite to the neighbouring metropolis, in the absence of any economic communication of this sector with the financially powerful sector of the town itself. This was perhaps the beginning of Serampore's ultimate incorporation in the Calcutta conurbation region as a satellite city.

The town, just before its initiation in industrialization, instead of being a vertical entity in the socio-economic structure, with status-interest groups forming intercommunicating strata, became a severally segmented horizontal entity with less than meaningful inter-communication and only with an ideological sense of hierarchy.

By the beginning of the 19th century an interesting development was taking place in Serampore, which could have been a reason for a heterogeneous growth of the town. In the year 1800 William Carey, Joshua Marshman and William Ward of the Baptist Missionary Society arrived in Serampore along with their families. They had chosen the Danish settlement in order to avoid the ban on the Christian Missionary activities in the English territories then prevalent. "As soon as the Missionaries established themselves at Serampore they opened a school, but it was not until after 1813 that they could undertake educational work on a large scale." In the 'monitorial' schools established by the Missionaries in and around Serampore town the language of instruction was Bengali and the students in the Primary and Junior High School stages were instructed in the rudiments of modern knowledge through the books prepared by the Missionaries with the aid of 'pandits' like Munshi Ramram Bose in their employment and printed at the Serampore Mission Press. The Central School at Serampore flourished. In 1818 Hannah Marshman, the wife of Joshua Marshman started a girls' school which like the boys' school received public approval. Though the citizens of Serampore utilized the opportunities provided by the schools, little by way of financial or active support was forthcoming, so continuing through a mounting financial crisis the missionaries were forced to close down both the schools in 1926. The girls' school was however, revived by Mrs. Howels, wife of the then Principal of Serampore College in the following year, as there was a crying need for a girls' school. Need for the revival of the boys' school was not much felt as several of them had already been established by the *zamīndārs*, rentiers, traders of Serampore, notably the Goswamis.

"The crowning work of Carey and his colleagues in Serampore was the establishment of Serampore College. It was founded in 1818, a year after the Hindu (now Presidency) College in Calcutta and is thus the second oldest institution of higher education in modern studies in India. In 1827 king Frederick VI of Denmark granted the College a Charter, similar to that of the Universities of Copenhagen and Kiel, empowering it to confer degrees. But inadequacy of funds prevented the implementation of the Charter. The endowment funds vanished in a series of bank crashes a few years later. Meanwhile, Serampore changed hands from the Danes to the English and the Charter had still not been used when the University of Calcutta was established in 1857. So Serampore College was affiliated to the University of Calcutta and remained so till it suffered total eclipse around 1883. The College was revived from such a state in the years after 1910 by its second founder Dr. Howels.

The Serampore missionaries were first to set up a vernacular printing press in Eastern India in A.D. 1800, first to print and publish books in Bengali, the first of which one written by Munshi Ramram Basu of the Mission titled

as *Raja Pratapaditya Charita* and the other *Kathapokathan* by William Carey came out in 1801. They set up a type foundry to feed the press with the technical skill of Panchanan Karmakar. Missionaries of Serampore were again first in bringing out a Bengali monthly journal, viz. *Digdarsan*—its first issue appeared in April 1818. The first issue of the first ever Bengali daily—*Samachar Darpan* came out from the Serampore Mission Press on May 23, 1818. Between 1801 and 1832, the Serampore Mission Press printed 2,12,000 copies of books in 40 different Indian and European languages. William Ward established the first paper mill in Serampore for maintaining a steady supply of paper for the Serampore Mission Press. But in 1837 the Press and the type foundry were removed to Calcutta to be combined with the Baptist Mission Press started in 1818 by Eustace Carey”.²⁰

In this cultural development the local inhabitants of Serampore had only a passive role. They had absolutely no active role in the growth and development of Serampore College and the manifold activities of Serampore missionaries in the development of a vernacular education system, printing, publication, journalism and Bengali prose. The Indian collaborators of the missionaries like Ramram Bose and Panchanan Karmakar came mostly from rural areas and from Calcutta and they did not grow any roots in the town. The reaction of the towns people to the activities of the missionaries was a mixed one. The towns people in general, who could afford to send their wards for education, and specially the leading sector of the affluent groups comprising absentee landlords, rentiers and businessmen belonging to upper Hindu castes and Nabasakha castes seized the opportunity to go in for modern education. While the artisans, small traders and sundry groups merely sent their children to the monitorial schools run by the missionaries, and remained largely indifferent to other activities of the Mission. The landlords, rentiers and big traders who utilized the opportunities of higher education provided by the Mission were at the same time resistant to the activities and ideals of this religiously and ethnically alien Missionaries. That is perhaps one reason why none from the affluent educated section of the town came forward either to help the Mission or continue its activities in different fields during the days of its decline. No body ever tried to resurrect the journals started by the missionaries or prevent the shifting of the press and the type foundry to Calcutta or take up the educational institutions when they were closing down one after another. With the exception of creating a permanent demand for modern education in castes and classes which generally was given to receiving some education for functional reasons and for its prestige value, activities of the Serampore Missionaries left no permanent impact on the communities in the town. Nothing comparable to the rise of Young Bengal and Derozian spirit happened. The appeal of Brahmoism, the secular-religion of the rising Western-educated white collar classes of the metropolitan situation, coming

a little later fell flat. The reason for this is not far to seek. In Serampore of those days, youngmen having their education from the missionaries lived in well-knit joint families; and the joint families in their turn were situated in close physical proximity of other families belonging to the same caste and having similar occupations and similar incomes. Most of their daily communication used to be carried within the bounds of this immediate face to face *para* or neighbourhood community. Then each of the member had great stakes in the family property and there was not much prospect for respectable white collared jobs carrying prospect of incomes that would not adversely affect the standard of living one was used to. In reality an individual in Serampore, specially members of an affluent class, till the turn of the century practically lived in a clan. The clan formed his personality through early non-institutional education, ideology, direct and indirect coercion and in-group communication. According to Max Weber, "disruption of the clans is a prerequisite of fraternization"²¹ and free fraternization²² on individual achievement basis and not on the basis of conventionally ascriptive role differentiation is the major key of dynamic urban growth.²³ All the Brahmins and Kayasthas even now gloat over the fact, that a Kayastha Raja of Sheorafuli punished the priest of Jagunnath temple who obeyed the orders of the Tili businessman who acquired considerable wealth in cotton yarn, salt and salt-petre business and bought off 6 anna-portion of the *zamīndārī* of the Sheorafuli Raj, few years earlier. This episode is a pointer to the fact that ascriptive-role rather than achievement was considered more important. In fact, there developed an identity with the 'great cultural tradition'²⁴ among the landed gentry of the town belonging to upper Hindu castes, dependent on incomes earned from land. This identification resisted innovations necessary for modernization.

In 1855 and in 1865 two events of cardinal importance were to determine the future pattern of urban growth of Serampore. Again, the factors that ushered in the change were extraneous to the town and were introduced without the active or passive aid from the inhabitants of the town. As it happened, when the Danes opened their factory and the missionaries started their multifarious educational activities, the motive factor of acculturation in the later change, viz. industrialization was introduced by an external agency. But the other factor of change, viz. the introduction of local self-government, like the growth of artisan class and handicraft industry was of indigenous origin. In a colonial situation, it has always been the case that motive factors of change are introduced by the ruling power for its own benefit and a class of collaborators develop to help the colonialists reap their profits and snatch some spoils in their own turns. But as they hold no control over the means of production and distribution, they usually fail to serve as agents or leaders of any significant social and economic changes, even when they want to. As Weber²⁵ had rightly stated that it is the negatively privileged class that brings

about lasting change in economy and culture. This happened in Serampore with industrialization and growth of the urban working class.

Something should now be said about the establishment of local-self government. The inhabitants of Serampore held a meeting in the cold weather of 1845-46, and requested the introduction of the new Act X of 1842. There in that meeting the first municipal committee was formed with two missionaries belonging to the Serampore mission, another Englishman about whom the exact details are not known, and a Goswami, a Lahiri and a Dey belonging to the three well known families of landed gentry in Serampore. The Municipality came into being by a Government Notification dated the 13th February, 1846. But the attempt was abortive, the paper-Municipality never got an active start. The Act III of 1864 was the first genuine attempt to set up a municipal administration with some financial powers to provide for certain civic amenities. Serampore along with its contiguous towns of Rishra and Konnagar to the south of it formed the part of one municipal administration, known as Serampore Municipality. The Municipality came into being in 1865. Rishra was growing as a purely industrial town since 1855 and its former rural character with the agriculturists forming the bulk of the population was undergoing a qualitative change by the quantitative increase in number of industrial workers and relative decrease in the number of agriculturists. Konnagar's social and economic structure was more or less similar to Serampore's, with industry whether household or manufacturing playing a lesser role. Rishra and Konnagar continued to be under the same municipal administration until 1915, when Rishra with a greater number of civic problems to tackle was separated from Serampore and Konnagar, remained a part of the Rishra Municipality as late as 1944.

The composition of the municipal council in different periods can perhaps be regarded as a good index of power structure or power distribution between different status-cum-interest groups and leadership patterns of the town at different periods. The composition of the first Municipal Council under Act III of 1864 was more or less the same as it was under the Act X of 1842. There was the admission that alien rulers were the real masters at the helm of affairs in the election of an Englishman and a Missionary of the Serampore Mission.

Then there were two representatives from the Barendra Brahmin landholding families, one from a landholding-cum-trading Tili family and one from a well known Kayastha family of Konnagar with considerable landed interest in the town. Besides them there were the ex-officio members from the Government side who had the real and mandatory powers. The composition of the municipal council remained almost the same with minor alterations till about the turn of the century. Representation of industrial labour, whose number was rising significantly in each decade during this

period, was going by default since property and to some extent educational qualifications determined the eligibility of participation in local government till recently. But the interests of artisans and small traders belonging to different Nabasakha castes and the motley quantitatively insignificant castes went by default, even when they had eligibility for participation in municipal elections as payers of licencing fees. Till the turn of the century the composition of the municipality never for a moment reflected the fact that industrialization was already changing the face of the town. Not to speak of labour, even the management was not represented in the council. It is of course true that the management personnel of the industries at Serampore and Rishra always remained based in Calcutta and they always got their interests served by the Municipality through the Government nominees in the board. Till about the turn of the century it was the fact of birth in certain families, belonging to certain castes and traditional callings which counted most for leadership positions or in other words ascriptive role, rather than individual achievement was emphasised.

Between 1810 and 1829, the earliest of the factories organized on modern lines were set up. In this period there grew up three distilleries manufacturing rum, at Ballabhpur, Rishra and Konnagar. However, due to the uneconomic cost of manufacturing and competition from imported goods the industry became extinct by 1840.

In 1833 the English East India Company's monopoly in trade was abolished and private investors and corporate bodies of investors as represented by the managing agency houses came rushing to Bengal. In 1855, one John Acland founded the Ischera Swine and Yarn Mills Company Ltd. at Rishra, which later came to be known as the Wellington Jute Mills. India Jute Mills Ltd. was established in Serampore in 1866. Between 1866 and 1915, 3 and 2 more jute mills were established in Rishra and Serampore respectively. One more jute mill was established in Gondolpara, immediately to the north-west of Serampore town, in this period.

This industrial growth had far reaching economic and social consequences. Demographically, it generated a fast rate of growth in the population with high immigration content. In a generation from 1872 to 1901, the population of Serampore increased by a little over 82% from 24,440 to 44,451. In the same period the district of Hooghly in which Serampore is situated recorded a 5.6 per cent decrease in population. Reviewing the period up to 1921, the *1961 District Census Handbook* comments, "the large increase in Serampore, Uttarpara and Bhadreswar is solely due to the immigration of mill hands".²⁶ Till about the turn of the century, ex-landless labourers from rural areas and ex-artisans from rural areas and from around the town formed the major bulk of the labour force. Then large-scale migration of ex-landless labourers, ex-share-croppers and small landholding agriculturists and ex-

artisans from the rural areas of the neighbouring provinces of Bihar, Orissa and Eastern parts of the United Provinces and even from the distant Andhra land began around 1881, and by 1911 Bengalees in the industrial labour force became a minority. In jute and cotton textile industries, though the Bengali labourers had a little quantitative edge, in all industries taken together, the migrants from other provinces formed the major, though not a homogeneous group.

With the establishment of the industries interesting changes in urban morphology were taking place. The new industrial establishments were being established either along the Bhagirathi and/or Grand Trunk Road and along the East Indian Railways' Howrah-Burdwan main line (since 1854) on the fringes and out-skirts of the then limits of the town. Labourers also began to settle down in areas around the factories in batches and groups. Factories began to be established in the erstwhile rural areas within or on the fringes of the town, which prior to setting up of the factories used to be inhabited by agriculturists. With the establishment of factories and residential quarters of the labourers erstwhile rural areas were coming into the urban fold, consequently, physical urbanization²⁷ was taking place. Thus a concentrically conglomerated urban settlement with some isolated linear extensions due to the existence of handicrafts settlements was more and more assuming a linear character due to industrial expansion. And linearity, as Corbusier points out, is a feature of an industrial city.²⁸ Serampore was linearly spreading in the direction of the growth of the Calcutta-Howrah conurbation region.

In connection with the growth of workers' colonies around mill areas in Ballabhpur, Akna, Mahesh and fringes of Gopinathpur areas, something should be said about the *thikadari* system that is still prevalent in disguise. At the beginning when the labour market for manufacturing industries was more or less a supplier's market, some skilled workers came round to the management and took responsibility for supplying mainly unskilled mill hands and piece rate labourers. They began procuring labourers belonging to the regions from where they themselves originally came from, and mainly from among the members of their own kin groups and castes. Because of their ability in securing jobs for those who needed them, as also in providing the required jobbers for the employers, these *thikadar-sardars* were becoming powerful factors in the labour market. Everywhere in Serampore, around each of the factories began to grow up kinship-relation based, caste-based and above all former rural residence-based neighbourhoods. Thus in and arounds the mills of Serampore we have Oriabasti, Telengipara, Chaprabasti, Gayapara etc. even to-day. These *paras* and *bastis* were further sub-divided by lanes or by a consecutive number of hovel-houses between castes. The labourers used to have very little normal communication with people of other callings, other incomes, other castes and other ethnic groups in the town. Their daily round

of social communications used to be carried on within the neighbourhood group. In their daily economic communications only, they could meet ethnically, economically and socially differentiated groups, as labourers in factories. Only the *thikadar* used to have once-a-month or twice-a-month communication with the representatives of the influential class of rentiers. The small grocers and money lenders whom the workers occasionally used to meet in their normal daily rounds were mostly from ethnically homogeneous groups. *Thikadars*, along with 'maharajs' or Brahman priests belonging to ethnically similar communities and grocer-money-lenders used to enjoy tremendous prestige and power in such neighbourhood communities. Intra-group disputes would never go to court. Several old lawyers would have us believe that the *thikadars* and money-lenders used to hush up even the criminal cases of which the state automatically takes cognizance and settle those disputes amicably. But inter-ethnic group disputes used to pose difficulties before these community leaders. Only then could the parties seek legal measures. It was at these points and at the point where during sickness and physical disability the workers were forced to take medical advice the professional middle classes were trying to exert influence over the working class. But this was never a conscious effort till around the late thirties. Though they were in urban areas and were earning their bread as wage labourers in large factories, the workers were living in clans, as they did in their villages. Though the production-relation that was sustaining them economically was impersonal and secondary; and though in the work they were engaged, personal achievement rather than ascribed caste-status counted more. Yet in their daily-round of communications face-to-face primary relations played a more prominent part.

After more than a hundred years of primary industrialization in Serampore, third-generation immigrants among the factory workers are hard to come by. The workers used to live a sort of camp life in their hovel-like homes in *bastis*. They always retained some interest in the villages from where they migrated. Some had little plots of uneconomic holdings, some had the wish to have such plots; somebody's parents would be there in the villages and in case of some others their wives and children would be in the villages. Many of the job seekers used to come to work in the factories only with a wish to supplement the meagre income of the family, or to pay off an old debt or to purchase a plot of land. They would invariably dream of going back to the village and to agriculture one day. Many of the workers used to come to work in the factories, leaving their women-folk and minor offsprings at their villages. That is the reason why since 1872 Serampore town has shown a heavy discrepancy in the male-female ratio. On all important ritual and social occasions like a marriage, *śrāddha* and even a big annual festival the workers used to go back to their villages. Even when on such occasions they stayed back in the town, they would perform their traditional festival and rituals with

priests from the locality of their origin.

In short, this was a sort of clannish and rurally patterned life for the working class in Serampore. The same was the case with other classes in Serampore. In the period under review, that is from about 1855 to 1905, the rentiers and *zamīndārs*—as we have already seen were identifying themselves more and more with what can be described in Robert Redfield's language as the 'great culture tradition'; their sustenance came from the income from rural-agricultural sources and urban ground rent, the latter rising since the opening of the Railway in 1854. Yet at the same time they were going in for modern western education. This investment in education, although it was not bringing about a change in the closed communities they were in, was destined to bring about major cultural and occupational changes later. Artisans and plantation workers living in their enclaves, had already lost the major social and economic reasons to communicate with other groups in the town and were depending more and more on markets of Calcutta and Howrah. For their finances too they were becoming dependent of *dadāndars* of Calcutta-Burra-bazar and Howrah *hat*. To sum-up, each occupation group was more or less one tangible ethnic entity. Such groups not only lived in physically separate zones, but also had very little inter-communication on vital economic and social areas. Primary and face-to-face relations only were the really significant relations for them. Secondary relations, although economically important, did not affect the social and cultural attitudes. To echo Max Weber again, the break down of clannish primary relations is a prerequisite for fraternization on the individual achievement plane and that sort of fraternization is necessary for a dynamic urban situation.²⁹

But what prevented the growth of a dynamic urban situation? What were the factors behind this twisted and rhythm-less urbanization of Serampore?

In the first place, industrialization in Serampore came about as a result of capital investment by Calcutta-based British agency houses until about 1906, when again Calcutta-based Indian capital joined in as a lesser partner. Neither the entrepreneurs, nor their highly paid officials lived in or around Serampore, nor was the produce of Serampore sold in the town. So the major portion of the value of these products used to flow out to London; and Calcutta received some as junior partner. Only that portion of value given as wages, used to be spent in Serampore. So Serampore, though it became pre-eminently a producer city by about 1900, became at the same time a satellite city to Calcutta—so far as decision making, financing and marketing were concerned. Till about the Second World War, the management of industry never felt it wise to invest anything for providing the workers with rudimentary social and civic amenities, such as health services, sanitation, water supply etc. that could have changed the face of the town.

Secondly, though industrialization conferred benefits on the landed gentry of the town by enhancing urban ground rents, yet, they were never a party to industrial growth. They did not have any communication with the working class, which at the turn of the century, by sheer numerical strength was becoming the largest single occupation group. Due to property and educational qualifications this group enjoyed leadership position in the municipal affairs. After Montague-Chemsford reforms were introduced, popularly elected municipal council got the controlling power over municipal finances. Town leaders at the helm of the municipal affairs naturally utilized the greater part of the municipal funds in providing civic amenities like sanitation, drainage, water supply, aids to educational institutions and road services etc. to their parts of the town. A casual glance at the municipal incomes during the twenties would convince anybody that the municipality was already earning greater revenue from the licencing fees of the factories and shops and establishments around than from individual property holders, yet the greater benefits from municipal expenditure were being reaped by the areas where the latter resided.

Artisans and plantation workers were not touched by the industrialization of the town. They were far more benefitted by the opening of railways in 1854. Calcutta-Howrah market became nearer to them than the people of Serampore. It may however be said that in Serampore too there was a market for betel-leaf and since the nationalist upsurge of 1905, of handicraft products. If not the betel-leaf growers, at least the traders among them were becoming an economically significant class by the second decade of this century and leading traders among them were trying to be town leaders as well.

All these bottlenecks and the non-existence of channels of communication tended to make Serampore a severally segmented city with ethnically organized classes and status groups occupying different positions on a horizontal plane, instead of being a vertical structure with differentiated strata.

By 1905-06 wind of change again started blowing. This time it was not coming from outside, but was from within and hence was potentially more significant in bringing about qualitative change. Increase in the quantity of workers in manufacturing industry, was already bringing about a demographic change in occupation. But mentally the workers did not belong to the city, they remained outsiders, with their roots in the distant villages and with no property or power interest in the city. According to George Simmel mentality of belonging to the city is an important qualification for the members of an urban community.³⁰

More important changes were, however, taking place in the attitude and social situation of the people who belonged to the urban community by dint of their property interests and leadership roles in the civic life. They were beginning to gather the returns of investment they had so far made in educa-

tion. Many of the educated among the affluent landed gentry and traders were going in for legal profession, teaching profession and medical practice. Some of them were doing so out of sheer necessity, as successive partitions of the ancestral property were leaving them with smaller and smaller incomes. By the beginning of the thirties a large number of educated people from the old established upper-caste families with landed interests, were taking up white collar jobs. This practice gathered momentum during the Second World War. But as the number of jobs were limited in Serampore itself, they were taking them up in Calcutta, Howrah, Barrackpore, Uttarpara, Chandernagore, Chinsurah and elsewhere in the contiguous and continuous urban region of Calcutta. How far the daily traffic of passengers increased between Serampore and Calcutta, can be gauged from the fact that in 1931 only 24 trains plied between Howrah and Serampore daily, and in 1961 the number increased to 81 trains daily. Office-time rush in trains going in a downward journey to Howrah and homeward-time rush in trains coming from Howrah to Serampore would convince one of the direction and purpose of the traffic.

The growth of an educated white collar class in Serampore has created an interesting situation. This class can be broadly divided into two groups. The first group, earlier to arise in time sequence, is composed of lawyers, doctors and teachers and small businessmen who reside in the town and go to work in the town. Most of them are from old established families of the town and hold landed properties. They are active leaders of their neighbourhood communities and of the town through the agency of the municipality and/or political parties and/or educational and social service organisations. Through their occupations and through their participation in political activities many of them since the late thirties have been establishing communication with the working class, and the plantation workers. Rise of this new class had a negative effect on the class from which it grew, viz. on the landholding class. But the landed interests of these people had not yet gone and this had a curbing effect on the needed fraternization. Individual achievements in different fields were taken notice of, but ascriptive roles were still important. In fact, those people who were becoming socially, economically and politically important persons were members of the groups enjoying prestige positions. The case of Tulsicharan Goswami, a member of the Goswami family of Serampore, a close collaborator of Deshabandhu Chittaranjan Das, a leader of the Serampore municipality may be regarded as a typical case. But from around the mid-thirties, organized political movement was sometimes throwing up leaders from unexpected caste, occupation and status groups. These people were rising to leadership positions on the basis of their personal achievements. At the same time numerically superior and economically viable but non-traditional power groups were also competing for

leadership positions in the whole urban community. We have already noted that the betel-leaf growers of Serampore, belonging to the Barui community, were becoming an economically viable social group. The traders among them were becoming affluent and were going in for higher education. Wealthy traders with education among them were no longer feeling content to remain leaders of their ethnic group only. In fact these educated traders were at the same time alienating themselves from their caste group. They organised the Paschim Banga Pan Byabasai Samiti with its headquarters at Serampore, which began to function like para-political organisation of betel-leaf traders. By late fifties they were able to send up a lawyer belonging to the Barui community to the municipal council as its Vice-Chairman.

The other section of the caste Hindu population, originally from land-holding families, who were constrained to take up white collared jobs away from the town and become commuters, did not themselves perform any role in the civic life, except perhaps as members of voluntary social service and cultural organisations. But they retained potentiality for such roles as members of certain families and neighbourhoods. This is in fact an admission of validity of ascriptive roles.

The industrial entrepreneurs and even the highly paid white collar workers of the industries in the town have little interest in the town since most of them do not reside in the town. The monopoly of the British managing houses in ownership of factories in and around the town came to an end by 1906, when Bangalakshmi Cotton Mills was established. But the investor in this case was also a Calcutta-based industrialist. So economic consequences of industrialization remained the same for Serampore, even after the Independence when large number of industrial establishments owned by Indian industrialists began to be set up. There was one and only one exception to this rule. Jitendra Nath Lahiri of the Lahiri family of Serampore, was perhaps only one innovator from the rentier class of Serampore who invested money to set up the Bengal Belting Industry and enriched the town by spending his income from the industry in the town. But this was a sporadic and abortive attempt.

What is happening to this former rentier and landholding status-and-interest group can best be described as generation of negative tendencies that have the possibility of disintegrating the group. But these negative tendencies are yet to manifest themselves properly. These manifestations can broadly be divided in two major tendencies. The professionals who earn their livelihood in the town itself and take active part in civic affairs, are an economically and socially generative group, with potentiality to stand on their own, if achievement criterion is applied. This group had the possibility to be at the top of a vertical structure and communicate with other strata below. But then property and rental interests exerted so great a pull on

them that they just could not ignore the 'great culture' neighbourhood community. So great is the pull of tradition and so homogeneous is the community of landed gentry, that even when Serampore elected a Communist to the state legislature he was to be a Barendra Brahmin from one of the old established landholding families. But happily, by the sheer weight of numbers the new residents of town are forcing others to give precedence to individual achievements by and by. Thus when municipal elections were held immediately after universal adult franchise was introduced, Serampore elected a Kayastha physician with no family tradition nor any property, as the Chairman. The same gentleman was returned from the Serampore Assembly Constituency in the last elections. Lawyers and physicians have adorned the seat of the Chairman of the Municipality even before him, but all of them had some standing as rentiers and family and caste traditions to boast of.

White collar workers, who ply to and from their place of work in Calcutta and place of residence in Serampore, do not have any culturally generative role in the town—even though they feel as belonging to the town. They largely sustain the satellite character of the town in a continuous and contiguous urban region.

Little change, however, is taking place either in the composition and or in attitude of the urban working class. It is chiefly for the reason that towns people were not entering into production relations in which they mainly figured. Secondly, because even in this period, civic amenities are reaching to them only in trickles. Trade unions which have started playing increasingly greater part in their lives, since the Second World War are mainly Calcutta based, most of the leaders of trade unions too are Calcutta based. Till universal adult franchise was introduced in the municipal elections last year, there was no scope for the representation of working class in the municipal council; but even after the introduction of adult franchise, labour is largely unrepresented. It is perhaps for the reason that working class as a whole has remained apathetic to civic affairs, with mental roots in the village. In civic affairs trade unions never even worked as indirect pressure group which they could have done. But trade unions have been able to reduce the hold of *thikadars* over individual workers and slackened the ethnic bonds to some extent. But the more potent factor in breaking the ethnic bonds, reducing the hold of *thikadar* leaders and in physical urbanization would be the housing colonies for workers being set up recently by different factories. These colonies are supposed to change the rural look of the areas around the factories, provide for better sanitation and water supply, make inter-ethnic group communications easier and reduce the hold of *thikadars*.

Serampore is still largely a severally segmented town, where different

occupational groups are not connected to each other in a vertical structure by economic compulsion. The decision making and financing of the productive sectors, viz. industry, handicraft and plantation is done by people stationed in Calcutta, giving the town a satellitic character, so far its generative function is concerned. The workers in manufacturing industry forming the largest major and single major occupational group determine the demographic character of the town. But they have remained outsiders in the civic affairs and as a consequence the areas of their settlement are provided with least urban amenities. The rentier class enjoy a prestige status and do most of the decision making in civic affairs. Their areas are provided with best of urban amenities as a result. But this class has no economically generative function, though they have fulfilled certain cultural functions, by investing in education, and thus bringing about an indirect cultural and social change. Certain dynamic elements with potentialities for bringing about qualitative change are working. But they are generating dynamism to opposite and contradictory directions. Thus while professional white collared workers, actively involved in the civic life are by their economic and social activities building up a vertical structure with a vertical mobility, their property interests and allegiance to close community are preventing them to go whole hog for individualization of roles. The white collar workers who commute daily between Calcutta and Serampore, though subjectively belong to the town, help in its remaining a satellite to Calcutta.

The town now has a sound basis for 'orthogenetic' growth through industry and industrialization. In fact the income generated by the industries can sustain the town. But then all the functions of the town are not connected with this dominant 'orthogenetic' function, due to the history of its development as a satellite town to Calcutta, through investments made by foreign interests. The town is culturally a 'heterogeneous' entity with different types of cultures. But this heterogeneity is too centrifugal and ethnic-origin-based to have its own urban character. So, this cultural heterogeneity is not at all generative. This is also due to the history of the growth under the domination of a colonial power and its development under a powerful cultural centre nearby. All the factors of acculturation coming from these sources could not be assimilated properly by the urban community in Serampore. "Towns are biological phenomenon. They have hearts and organs indispensable to the accomplishment of their special functions. They may, in the wake of anarchy, lose their vital nature and degenerate into vast parasitic connurbations, with parts having no relation to each other and the whole".³¹ This is what Serampore is to-day.

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A. M. SHAH

Study of Changes in the Indian Family

“FROM joint family to elementary (or nuclear or individual) family”—this has been a slogan summarizing changes in the family in India during the modern time. Recently, some sociologists have pointed out that the change implied by the slogan is not taking place; what is emerging, they say, is not the elementary family but a new form of the joint family. Even these sociologists, however, do not question the correctness of describing the traditional family system of India as the joint family system. This belief about the traditional Indian family subsumes a set of some other beliefs : (a) Traditional India was village India, and the joint family was therefore a characteristic of village India. (b) Contrariwise, urban areas are new and characterised by the elementary family. (c) Urbanisation, therefore, leads to disintegration of the joint family. Recently, some sociologists have pointed out that urbanisation does not lead to disintegration but only to transformation of the joint family. They do not, however, question the belief that the joint family was always a characteristic of village India. In this paper, I have made an attempt to examine these beliefs about the traditional Indian family. It is well-known that a proper understanding of social change requires a proper understanding of the past. In the study of changes in the Indian family, therefore, the importance of an examination of ideas about its past can hardly be over-emphasised.

It should be made clear that this paper is concerned with the beliefs about the traditional family only in so far as they appertain to its household aspect. It has now become common place in sociology and social anthropology to distinguish between ‘household’ and ‘family’. In common English

parlance the word 'family' has several different meanings, including 'household', the common Indian word for the family, viz. *kutumb*, has likewise several different meanings, but, for the sake of technical analysis, 'household' should be distinguished from the other referents of 'family'. For example, two brothers and their wives and children may live in two separate households, but they may be bound by a number of relationships of many kinds. For the sake of clarity, it is necessary to consider such inter-household relationships as distinct from relationships within the household. Although the aim of the study of the family should be to study it in all its aspects, the beginning has to be made with the study of the household. An examination of ideas about the past of the Indian household is, therefore, crucial in a comprehensive study of changes in the Indian family.

I shall examine ideas about the past of the Indian household in the light of the knowledge we have been able to gain about its dynamics from empirical researches carried out at the present time. A projection of systematic knowledge about the present into the past is very helpful in an understanding of the past; at least it tells us what to look for in the past. However, it should be made clear that I describe here only the most essential characteristics of the dynamics of the Indian household, and that I describe them very briefly.

If we take a census of households in any section of Indian society, a village, town, or caste, and examine their numerical and kinship composition, we find a number of types of composition, ranging from the most simple single-member household to a very complex household of many members. A 'simple' household is composed of a complete elementary family or a part of an elementary family. A 'complex' or 'joint' household is composed of two or more elementary families, or of parts of two or more elementary families, or of one elementary family and parts of one or more other elementary families.¹

One of the first tasks in an analysis of households is to formulate the types of composition. The structure of the household becomes more complex as more categories of relatives are included. In a one-member household there is no relationship; in a two-member household there is one relationship; but beyond this the addition of one relative means an addition of more than one relationship. For example, the addition of a son's wife to a household of father, mother and son, means the addition of relationships not only between the son and his wife but also between father-in-law and daughter-in-law and between mother-in-law and daughter-in-law. Addition of relationships tend to create conflict between roles. For example, the conflict between a man's loyalty to his wife and loyalty to his parents is proverbial in Indian society. Each person in a household is involved in a complex pattern of behaviour

with every other member. Everyone in a household has his own likes and dislikes, habits, tastes and idiosyncracies. Life in a household is marked by sentiments and emotions, and co-operation as well as conflict. Therefore, if our aim is to understand household life in its entirety, the formulation of types of household composition should take into account all the various members of a household. After the types have been formulated, it is necessary to examine the frequencies of households of the various types.

Classification of households according to types of composition is not, however, an end in itself. The types are not discrete and haphazard but are interrelated in a developmental process. This process may be in progression or in regression. Progressive development of a household takes place due to increase in membership, mainly by birth and marriage, while regressive development takes place due to decrease in membership, mainly by marriage, death and partition. It may be mentioned in passing that there is always some pattern in the developmental process, but it is not cyclical in nature as considered by Professor Fortes and his associates.²

One of the determinants of the developmental process is a set of explicitly stated rules or norms governing the formation of households. In most sections of Indian society, at marriage the bride leaves her parental home and goes to live in her conjugal home. A son and his wife are required not only to start their married life in his parental home but also to continue to live there afterwards. This norm has a number of implications. For instance, if a man has more than one son, each of the junior sons and his wife will have to live not only with his parents but also with his senior brothers and their wives and children. In fact, frequently people state that a man and his wife should live with his brothers and their wives. Furthermore, they say that brothers and their wives should live together not only during the lifetime of the (brothers') parents but also after their death, and the brothers' sons and their wives should also live in the same household. Sometimes the norm is extended still further. Taking all these norms together, the central idea is that while female patrilineal descendants of a male ancestor go away to live with their husbands, the male patrilineal descendants and their wives should live together. The wives should be so completely incorporated into their husbands' kin-group that they should not be divorced and that even after their husbands' death they should stay on in the same household. Unmarried children should be with their parents; in the event of divorce or death of their mother, they should stay with their father or his male patri-kin. I would call the central idea behind these norms briefly the principle of residential unity of patri-kin and their wives. It is necessary to clarify that this principle is normative in nature, and that there are always deviations from it as in the case of all norms. The measurement of conformity to and deviation from the principle is, therefore, an important problem of inquiry.

While the principle is common to almost the entire Hindu society, there are differences between different sections of the society in the extent to which it is observed. First of all, there are differences in the maximum extent to which the developmental process goes in progression along the path set by the principle. For example, in a Gujarat village I have studied, there is no case of two or more married brothers living in a single household after the death of their parents. In a nearby village, on the other hand, there is a considerable number of households of this type. Such differences in the maximum extent may also exist between villages and towns, between one caste and another caste, and between one region and another region. Secondly, while the maximum extent of the developmental process may be the same in two sections of the society, there may be differences in the frequencies of the cases in which the norm is observed within this extent. For example, in the Gujarat village just cited, only about 5 per cent of the total number of households are composed of one or both parents and *two or more* married sons and their wives and children, while 19 per cent of the households are composed of one or both parents and *one* married son. This is mainly due to the fact that married sons tend to live separately from parents even before the death of parents. Out of 41 cases of parents having two or more married sons each, only in 12 cases (29.26%) all the sons live with the parents in a single household, while in 29 cases (70.73%) all or some of the sons live in separate households (in the village itself). And out of 50 cases of parents having one married son each, in 38 cases (76%) the parents and the son form a joint household, while in 12 cases (24%) the parents and the son live in separate households.

One of the factors affecting the degree of extension of the principle of residential unity of patri-kin and their wives appears to be the degree of Sanskritization of a caste. This is due to the great emphasis the Hindu scriptures lay on the high degree of observance of this principle. The ritually higher castes, who are under the greater impact of the scriptures, tend to have a higher degree of extension of the principle. Another factor affecting the degree of extension of the principle appears to be the institution of cross-cousin and uncle-niece marriages.

Whatever be the maximum extent to which the principle goes in progression in a particular section of the society, it is important to note that the processes of progressive and regressive developments go on simultaneously in the society taken as a whole; while one household may be undergoing progression, another may be undergoing regression. As a result, there are always households in the society which are small and simple in composition, along with households which are large and complex in composition.

When a complex household, say, of two or more married brothers, is partitioned, two or more separate households come into existence, but at the

same time a number of other relationships continue to operate. They would co-operate in economic pursuits, hold and manage property jointly, help each other on many occasions, celebrate festivals, rituals and ceremonies jointly, and so on. This is also a normal process, which highlights the importance of technical distinction between 'household' and 'family' mentioned at the outset. Thus, two or more households may be separate but they may constitute one family.

For a long time, students of the Indian family have used ancient Indian literature for information about its past. This information is of two main kinds : (a) pertaining to the property aspect of the family, which is generally included in the study of Hindu Law, and (b) pertaining to certain family rituals, such as the *śrāddha*.³

The Hindu legal text, *Mitākśara*, first defines a coparcenary : it comprises only those males who take by birth an interest in the joint or coparcenary property, i.e. a person himself and his sons, son's sons, and son's grandsons. As each son acquires by birth an interest in coparcenary property, even a father and his unmarried son are sufficient to constitute a coparcenary. Under the *Dayabhaga*, there is no coparcenary between a man and his son(s), married or unmarried, even though they may be living in a single household. The legal definition of the joint family is based on that of the coparcenary : it consists of all males included in the coparcenary, plus their wives and unmarried daughters. The latter are not coparceners but have only a right to maintenance.

The main points here are two : (i) The legal definition of the joint family is a highly specialized one and has nothing to do with the sociological distinction between elementary family and joint family. A joint family of the legal conception can exist even within an elementary family of the sociological conception. For example, a father and an unmarried son, or a widow and her unmarried son, are sufficient to constitute a joint family according to law. (ii) The law does not lay down the rule that the joint family of the legal conception should always be a joint household. A son may live separately from his father, and one brother from another, but they continue to be members of their respective joint property group. In brief, the law is concerned primarily with the rights of constituting a property-holding group and of maintenance therefrom, but not with the constitution of the household group.

In the *śāstras* (sacred texts), the question as to who should hold and inherit property is discussed usually in relation to the question as to who should perform the *śrāddha* ritual for whom. In other words, the legal definition of the constitution of the joint family tends to coincide with and is

sanctioned by the definition of the circle of persons required to perform the *śrāddha*. This circle of persons need not live in a single household, just as the persons constituting the joint property group need not live in a single household. It seems to me that it was because of the coincidence of the legal and the ritual definitions of the joint family that the definition given in the *śāstras* came to be accepted as the general definition of the Hindu joint family. I shall call it the Indological definition. As most of the early studies were carried out by Indologists (including historians, sanskritists, and orientalist) on the basis of sacred literature, and as both Indologists and lawyers were dominant in the academic field in India, the Indological idea of the joint family carried a lot of weight and gained popularity.

The Indological-cum-legal material on the Indian family was used by Sir Henry Maine in his general theory of the evolution of the family. He compared and contrasted the joint family of India with the individual family of the West, and considered the latter as later in evolution than the former. He thus laid the foundation of the sociological study of the Indian family, and through him the Indological view of the Indian family came to be accepted in sociology.

I just now pointed out the fact that the Indological definition is not concerned primarily with the composition of the household. In so far as it was concerned with the household, it laid down only the definition of the ideal household, or in my terms, only the maximum extent of progression of the developmental process of households. The Indological literature does not provide any information on the various types of households, nor on the frequency of households of each type: obviously there was no census of households, in any section of Hindu society, at any period of time. Furthermore, the literature provides information more about the Brahmans and a few other higher castes whose property relations and rituals were governed by the sacred texts. With regard to the household also, the ideal that the texts emphasised was high—a household of four generations⁴—and it seems only the higher castes tried to emulate the ideal to a higher degree. The texts do not provide any idea of differences in the family life of different sections of the society.⁵

We begin to get more precise data on the household only with the beginning of the British administration in India. The Office of the Census Commissioner of India has planned to publish a series of volumes on population estimates for the period from the 18th century to 1871 on the basis of censuses conducted in different parts of India during the period. The first volume in this series, dealing with the decade 1820-30, has been published recently.⁶ It seems to me that it will be extremely useful if attempts are made to find and then analyse the original schedules of all these censuses. My experience in

Gujarat indicates that such attempts are likely to be fruitful. During my search for sources for the study of social history of villages in Central Gujarat, I found in the *ta'luqa* headquarters the original schedules of a census carried out by Captain Cruikshank and his associates,⁷ the same schedules that he used in compiling general reports of different parts of Gujarat, which have in turn been used by Mr. and Mrs. Bhattacharya in their volume on population estimates for 1820-30 mentioned above. In this census of Gujarat, a Census Register was prepared for every village, in which were listed the names of heads of households in the village according to their religion and caste, and against each name were given the following details : (i) houses and huts, (ii) men, (iii) women, (iv) servants and slaves, and (v) total number of persons.

I have made a detailed analysis of the 1820-30 census data on the household composition in a Gujarat village.⁸ It shows (a) that the average size of the household was 4.5, and (b) that the progressive development of households rarely, if ever, went beyond the phase of co-residence of two or more married sons during the lifetime of their parents. It is significant that the census data of a village in Maharashtra of the same period, which Professor Ghurye has presented in his book *After a Century and a Quarter*,⁹ shows the same average size of the household as in the Gujarat village. The early nineteenth century data thus indicate that we cannot start the study of changes in the family in India with the assumption that villagers in traditional India always lived in large and complex households of three or four generations. We need a more realistic base line, and the early nineteenth century census data are a very useful source for reconstructing such a base line.

As regards differences in the family between rural and urban areas also, it is important to keep in view the position at the beginning of the nineteenth century. (It is hardly necessary to discuss the point that there were towns in India before the modern processes of industrialisation and urbanisation began.) The early nineteenth century census data indicate that there was a higher proportion of the population of higher and more Sanskritised castes in towns than in villages. The bulk of the population in villages consisted of lower and less Sanskritised castes. If this point is related to my earlier point that the higher castes were under the greater impact of scriptures and there was therefore a higher degree of observance of the principle of residential unity of patri-kin and their wives among higher castes, it follows that there was a higher degree of observance of this principle in towns than in villages. The reality was thus quite the reverse of the widely prevalent belief that there was a greater emphasis on joint households (i.e. on the principle of residential unity of patri-kin and their wives) in villages than in towns in traditional India.

Although the censuses upto 1871 had certain obvious drawbacks, they covered only small areas in the country, and even within a small area the census was not taken simultaneously in all the villages and towns, it is remarkable that they collected and recorded a great deal of information of demographic and sociological value. The later censuses covered wider areas and became uniform in techniques, terminology and classification, but there was retrogression in the case of information concerning the household. In all the censuses from 1867 upto 1941, the distinction between 'household', 'house' and 'building' was not followed uniformly in all the Provinces and States and sometimes even in all the parts of a single Province or State, and hardly any attempt was made to collect information either on the kinship or on the numerical composition of households. Nevertheless, even the meagre information they provided is highly *suggestive*. All of them show that the average size of the household was rather low—between 4.5 and 5. Sir E. A. Gait, the Census Commissioner for 1911, stated the position very succinctly: "the average population per house is 4.9 or much the same as in European countries. In the British Islands it ranges from 4.8 in Scotland to 5.2 in England and Wales".¹⁰ This suggests that the people in India lived mostly in small and simple households. It is noteworthy, however, that almost all the census officials interpreted their figures unrealistically. They assumed that Indians in pre-British days always lived in large households, and therefore, they concluded from their figures that the traditional household system was disintegrating due to modernisation. The assumption about the past was a great obstacle in a realistic interpretation of the figures before them.

In a recent paper, Dr. Henry Orenstein¹¹ has used the census data to examine the usual general idea about changes in the Indian household. He has posed the problem as follows: If the wide spread belief that the modern processes of industrialisation, westernisation, etc. of traditional societies such as India lead to smaller households, then the increasing industrialisation, westernisation, etc. should be reflected in a decreasing average size of the household. He presents figures to show that the average size of the household has not only decreased from the 1867 to the 1951 census, but there has been on the contrary a slight tendency—very slight indeed—towards increase. This suggests that the modern processes of industrialisation, westernisation, etc. have not brought about the so-called disintegration of large and joint households. Dr Orenstein conjectures, I think quite rightly, that the belief about the wide prevalence of large and joint households in pre-British India is false.

During the last thirty years or so, professional sociologists and social anthropologists have studied the problem of changes in the family in India. Some of these studies are concerned only with the household and some with

the household as well as other aspects of the family. I would refrain from commenting here upon those studies which are not concerned with the household, as well as upon those studies of the household which are not concerned with the problem of change.¹² As far as the studies of changes in the household are concerned, I submit that most of them have suffered from the assumptions I have examined in this paper. It seems to me that we need a new and more sophisticated framework for our study.

First of all, we have to distinguish the normal developmental process from change. This is a difficult task, but we have to face it. Studies of the early nineteenth century data on the household seem to me to be very necessary for this purpose.

Secondly, there is no point in postulating a single line of change for the entire Indian society. I suggest that it would be profitable to bring into the study of the household Professor Srinivas's ideas on sanskritization and westernisation. In this context it is worthwhile to recall the slight increase in the average size of the household indicated by Dr Orenstein. It is possible that this increase may be due to some demographic factor. Dr Orenstein himself has suggested that it may be due to a rise in the average number of children or in the average number of adults per household. (If the latter is true, it strengthens the argument in favour of an increasing over-all emphasis on large and joint households.) Notwithstanding the influence of demographic factors, it seems worth inquiring whether the sanskritization of lower castes and *adivasi* tribes that has been going on on a massive scale in the country has contributed anything to an over-all greater emphasis on the principle of residential unity of patri-kin and their wives. It cannot be denied that westernisation of the higher castes has contributed to a lesser emphasis on the principle, but the countervailing influence of sanskritization might have led to an over-all tendency in favour of greater emphasis on it. What I plead is that let us not assume that there has been an inevitable trend from large and complex (or joint) to small and simple households.

Finally, we need to have a fresh look at the problem of impact of industrialisation and urbanisation on the household. It has already been pointed out that the situation in the past was possibly quite the reverse of what we have been assuming it to be. That is to say, there was greater emphasis on large and joint households in towns than in villages. Migration of rural people to towns, therefore, does not necessarily mean migration from a social environment of large and joint households to that of small and simple households. It seems to me that the study of the long-established population of older towns and cities is extremely important. I have in mind for example the walled cities of Delhi, Agra and Ahmedabad, certain sections of the population of even Bombay, Calcutta and Madras, and the large number of small towns. We should also examine the extent to which migrants to a town

tend to be its permanent residents, and whether they practise the old norms when they are permanently settled. The whole question of relation between migration and the household in India seems to be complicated. In any case, we begin to understand it better if we get rid of the old-established assumptions.

NOTES AND REFERENCES

1. The terms 'simple household' and 'complex household' are not discussed here in detail for want of space. However, it may be noted that (i) 'elementary family' is not the same as 'simple household'; actually, a household composed of a complete elementary family is only one of the several types of 'simple households'; and (ii) 'joint household' is only a convenient alternative of 'complex household'. The background for discarding the usual dichotomy of elementary and joint family is provided in my paper "Basic Terms and Concepts in the Study of Family in India", *Indian Economic and Social History Review*, Vol. I, No. 3, January-March 1964, pp. 1-36. I have dealt with most of the points of this paper at length in my forthcoming book on the family in India.
2. Jack Goody (ed.), *The Developmental Cycle in Domestic Groups*, Cambridge University Press, Cambridge, 1958.
3. For a fuller discussion of this literature as well as for citations, see my paper, *op. cit.*, pp. 10-14.
4. The definition of the household composition on the basis of generations is also confusing. For a discussion of this point, see my paper, *op. cit.*, pp. 5-6.
5. The indological literature is wider than the literature I have considered here, but I doubt if the other literature also provides the kind of data the sociologist needs for the study of the household.
6. D. Bhattacharya and B. Bhattacharya (eds.), *Census of India 1961, Report on the Population Estimates of India (1820-30)*, Office of Registrar General, Delhi, 1965.
7. For a detailed description of these records, see, A. M. Shah, R. G. Shroff, and A. R. Shah, "Early Nineteenth Century Village Records in Gujarat", in Tapan Raychaudhuri (ed.), *Contributions to Indian Economic History*, Vol. II, Firma K. L. Mukhopadhyay, Calcutta, 1963, pp. 89-100.
8. See my Ph. D. dissertation "Social Structure and Change in a Gujarat Village", in the library of the University of Baroda, Baroda, 1964, pp. 76-86.
9. Popular Book Depot, Bombay, 1960, p. 14.
10. *Census of India 1911*, Vol. I (India), Part I (Report), Government Printing, Calcutta, p. 47.
11. "The Recent History of the Extended Family in India", *Social Problems*, Vol. 8, No. 4, Spring 1961, pp. 41-50.
12. I have dealt with the terminological and conceptual aspects of some of the other studies in my paper, *op. cit.*, and my forthcoming book on the Indian family includes a rather lengthy review of the literature on the subject.

O. P. SHARMA

*Rural-Urban Interaction Patterns in India**

IN this article an attempt would first be made to review the literature available in this area and thereafter a theoretical and methodological formulation will be made to study the rural-urban interaction pattern. Secondly, some empirical-results would be quoted from author's own study in Rajasthan to throw some light on the current trends in rural-urban interaction patterns. It may however be noted that sharp temporal slabs from 1872 to 1961 have not been strictly adhered to for the simple reason of non-availability of sociological material but mention has been made of such data wherever the same was available. For the purposes of this article two broad phases of India's journey, viz. pre-independent India or pre-industrial India and post-independence or transitional India have been maintained. In the first phase a summary of network of rural-urban interaction pattern based on the available literature would form the major-emphasis while in the latter phase though a mention of available literature would be made but the main emphasis would rest on author's own empirical work on Panchayati Raj in Rajasthan. Actually, in the latter phase an attempt would be made to examine the impact of national ideology and planned socio-economic change on these two segments of a total society viz. rural and urban.

*A grant for empirical study quoted in this article was made available by American Institute of Indian Studies, Philadelphia, USA, and the same is gratefully acknowledged. The theoretical thinking of this article has been greatly influenced by Gideon Sjoberg's article on "The Rural-Urban Dimensions in Pre-industrial, Transitional and Industrial Societies" reported in R. L. Faris' book, *Handbook of Modern Sociology*, Chicago, 1966, pp. 127-160.

“Sociologists are properly interested in theorizing about the differences, readily visible, between city and country. In the ancient world, philosophers recognized that the city stood apart from the rural hinterland in its basic economic activities. But only since the time of Ibn Khaldun in the fourteenth century and Giovanni Botero, some centuries later, have serious efforts been made to describe and explain some of the divergences between city and country”.¹

Several sociologists, ever since, occupied themselves with rural-urban differences and have expressed their concern in their own-dichotomy. Maine's² *Status and Contract*, Durkheim's³ *Organic and Mechanical solidarity*, Tonnies',⁴ *Gemeinschaft and Gesellschaft*, and Howard Becker's,⁵ *Sacred and Secular* reflect sociologist's concern as to what happens in the shift from one order to the other. Unfortunately sizeable section of sociologists and anthropologists concerned themselves with minor details about rural-urban community living, disregarding the broader implications. No doubt some sociologists around 1950 could realize that the attention must be paid to underdeveloped, and modernising or transitional societies by identifying the process of shift from largely rural order to industrial-urban order. Work of Kahl,⁶ Lerner,⁷ Levy,⁸ and Bendix⁹ may be mentioned in this regard. In fact, currently the focus is on transmutation from a pre-industrial to industrial urban order. As far as India is concerned some valid reasons can be put forth to argue that the shift from pre-industrial-transitional to industrial order has yet not reached the last mile-stone and the country is passing through transitional stage striving hard for the final destination.

In the tradition of Western Sociology, specific attention has been given to the transition involving a shift from a pre-industrial, largely rural order to an industrial, largely urban society. Actually, currently the focus is on “transmutation from a pre-industrial to industrial urban order”. In Indian context this shift has to be viewed from pre-industrial to transitional India as truly industrial India has yet to emerge.

Two broad approaches in the study of rural-urban differentiation are followed, viz. multiple criteria and single criterion approaches. The multiple criteria approach owes much to Redfield,¹⁰ Wirth,¹¹ Sorrokin,¹² and Zimmerman¹³ and stresses on factors like community size, homogeneity, differentiation etc. while single criterion approach laying main emphasis on the size only has salient contributors like Duncan¹⁴ and Reiss.¹⁵ Evaluating critically the Redfield-Wirth formulations one would be able to pin-point certain salient weaknesses in it, and consequently recognise the limitations of Indian village studies as they not only fall under this intellectual tradition but continue to follow the same even when the propagators have given up the stand. One would recognise that in Redfield-Wirth's formulation although “the folk-order is a

closed, self-contained system and the city (or urban community) only a partial system, the two none-the-less are contrasted".¹⁶ In fact these entities are not comparable. One is said to be a whole while the other is merely a part of a broader system. Urban community can best be compared with rural from the point of view that both are sub-systems within a broader society. Both rural and urban communities be analysed as partial systems within the context of broader social order in which they are firmly embedded. In fact, such an analysis in temporal depth would provide insights concerning a continuum of growth of both—the broader social system and two partial systems.

Because of lack of such theoretical and methodological orientation, very few solid sociological studies documenting the "impact of large scale extra community structures like government, bureaucracies, corporations and other political and religious institutions upon the local setting as well as the interaction between the local, the regional and the national systems are available".¹⁷ Studies of Dube,¹⁸ Mayer,¹⁹ Mazumdar,²⁰ Srinivas,²¹ McKim Marriott,²² and Alan Beals²³ etc. are microcosm confining only to rural partial system, without tracing the sociologically relevant interactional interlinkages between partial and broader social systems. To my mind, generalizing for macrocosm from microcosm has its own serious procedural limitations. In this regard Richard Lambert²⁴ writes as under:

"In reading among the village studies it often appears that the author has drawn an imaginary line around the village and that he is interested only in intra village affairs, even when villages are very close to cities. The general theoretical orientation of the village studies which are mostly, in Redfield's terms, synchronistic and holistic, treats extra village influences as either irrelevant or disturbing factors in a stable, structurally equilibrated microcosm".

Richard Lambert has demonstrated that Mazumdar,²⁵ Opler,²⁶ Cohn and Marriott,²⁷ M. S. A. Rao²⁸ and Hemlata Acharya²⁹ all have maintained the unity and isolation of their respective villages inspite of their close proximity to the city. He discounted the concentric-impact theory implying the rural changes in direct proportion to the urban proximity, and maintained that "rural changes are occurring not so much because of urbanisation per-se but because of general changes in the society, some of which reach their most extreme form in the urban areas. The change producers, then, are not the city or town per-se, but newer forms of economic organization as well as a modernized, more cosmopolitan set of values characteristic of some section of urban population".

From the above discussion, it is clear that a new formulation not adhering to rural-urban differences but emphasizing on their interactional patterns and interlinkages within the broader societal fabrics is needed if a clear picture of

socio-economic changes over a time span is desired. Gideon Sjoberg puts down the formulation as under:

“..... in order to analyse rural-urban patterns effectively, one must recognise that rural-urban communities are sub-systems within larger wholes such as nation-state-system. Neither the local urban community nor its rural counterparts are microscopic representations of the broader society. Also it be recognised that ‘rural’ and ‘urban’, for sociologists are analytical constructs in the studies of the aspects of any social system. We must not confuse analytical distinctions with empirical reality”.³⁰

This to my mind would be a very useful strategy for tracing the rural-urban interactional patterns. It may, however, be noted that Bailey³¹ recognising the limitations of single village studies has taken a lead by examining a village in the context of region-state-system. Other scholars like Paul Brass,³² Ralph Nicholas,³³ Myron Weiner³⁴ and Cantrill³⁵ have raised the issue but have not fully exploited their material in this perspective. It is high time we begin using it; and an attempt in this regard would be made in the remaining portion of this paper.

Let us turn our attention to some specific features of the interaction patterns and resultant social adjustments. To begin with urban relationships, we must take cognizance of large scale movements of persons from rural to urban areas consequent to the process of industrialization. Figures given below would indicate the trends of migration over time period:

TABLE I

Migration in Cities with 20,000 Population

Years	Size (millions)	Percentage gain
1921-31	1.7	9% over 1921
1941-51	9.0	20% „ 1941
1951-61	N. A.	0.7% (from 17.3% to 18%)

Source: K. C. Zachariah, *A Note on Internal Migration in India*, quoted in UNESCO Seminar Report on Urban-Rural Differences in Southern Asia, Delhi, 1962, p. 71.

Along with this table let us have a review of growth of cities in India over the same span of time :

TABLE 2
Growth of Cities : 1881-1961

Years	Cities of 1 lakh population		Cities with 20,000 pop.	
	Nos.	Pop. % to total	No.	Percentage
1881	18	—	—	—
1891	22	—	—	—
1921	32	2.5	16878	5.5
1931	36	2.7	21236	6.3
1941	57	4.1	31719	8.2
1951	74	6.6	42405	11.9
1961	107	8.0	60386	13.9

Source : Census of India 1961, Paper No. 1—1962, quoted in UNESCO Seminar Report, Delhi, 1962, p. 127.

From Table No. 1, it is evident that rate of migration has been quite substantial until 1951. In view of the details shown in Table 2, it can be seen that there has been a considerable increase in both types of cities during 1941-51. Zachariah³⁶ points out that rate of migration to cities decreased during 1951-61 period and as such two distinct periods can be marked in Indian internal migrations. These two tables go to point out that migration and growth of urban centres have gone hand in hand. This conclusion is further substantiated by the statistics of urban population given below :

TABLE 3
Urban Population Over Time Period

Years	Population percentage
1921	10.2
1931	11.1
1941	12.8
1951	17.4
1961	18.0

Source : *Demographic Year Book* (U. N.), 1960, 1962, produced as Table II in UNESCO Seminar Report, Delhi, 1962, p. 122.

Looking to these year-wise population figures, it can easily be said that sharp gains are visible during 1941-51 period when compared to 1921-31 span. Through these tables, a logic can be put forth that during the very early period, say until 1921, the pace of migration and urbanisation was relatively slow but during 1931-51 the rate was appreciably high. During the period 1951-61, though the rate of urbanisation is not that slow the corresponding migration has registered an appreciable decline. This trend conforms to my contention that until 1931 or for that matter till 1941, India could be classified as pre-industrial—largely rural and in post-1941, as transitional registering shift from one order to another.

Further, it has been maintained that in India, “there has been a change in the origin of migrant groups. Until, 1931, migrants were predominantly rural; since then industrial workers also have been increasingly on the move from small towns to other urban areas”.³⁷ Very little information is available about the stages of migration from rural to urban areas but it is maintained that perhaps “a very significant portion of rural migrants move to big cities directly without being acclimatized to urban life in small towns”.³⁸ Indian census data supports the contention along with the reports of city surveys of Kanpur, Delhi, Kolhapur and Poona. In the transitional era, the migration from the rural areas takes place because of general process of “push and pull”. To my mind, it is neither the push of rural problems alone nor the pull of urban centres which would explain the migration. Both “push and pull” are responsible for the rural-urban migration. Thus the migration has to be viewed as resultant of population explosion in rural-urban areas coupled with the general industrialization—and urbanisation. It is not an isolated phenomenon judged either from urban or rural point of view. Both rural and urban factors are involved in it.

“In India land holdings have become highly fragmented and each generation inherits smaller parcels of land. A large landless labouring group has arisen. Consequently, the rural to urban-migration”.³⁹ This is a special feature of transitional society like India.

The same viewpoint I hold in regard to resultant change in both rural and urban centres. Migration on one hand has brought the villages near cities but at the same time has percolated cities into the rural-socio-cultural fabrics. Let me illustrate.

The migration patterns produce various strains and tensions in both rural and urban centres. The age, sex, and educational differentiations between migrants and non-migrants generate new kinds of social arrangements on the part of both rural and urban communities. For example, young adult unmarried males migrate more frequently implying thereby the loss to the villages and the gains to the cities of the many persons who are in most productive years of life. Imbalances in sex-ratios have equally serious consequences

for urban as well as rural folks. I would not go along with Lambert⁴⁰ when he says that out migration has had no effect in the rural areas. Who would deny the change in rural-family type, decline in authority and power of family head and shift in status-prestige ranking of certain caste groups and individuals as a result of migration. Every Bombaywala can distinctly recall the contribution of U. P.-Bhaiyas engaged in the supply of milk. Nine out of 10 Rickshaw-pullers in Kanpur and Lucknow are from village of Gonda-Basti-Gorakhpur tract. Similarly, cities of transitional India, ever since 1941 onwards are undergoing marked transformation in their social organization. "The traditional stratification, familial, economic, political and religious systems are breaking down and newer industrial forms are emerging".⁴¹ Oscar Lewis⁴² and Gideon Sjoberg⁴³ maintain that rural-urban sectors merge "because of their lower-status inhabitants share the "culture of poverty". The unfavourable economic situation of lower class urbanites and peasants prevent them from sustaining the patterns of either the traditional elite or emerging industrial urban-middle class". The link and interaction between rural and urban through these sharers of the culture of poverty can easily be established.

To stretch the point a little further, these migrants are in fact the links between city and the village. These new-migrants always endeavour to settle in communities containing others like him. He might have moved to the city because of personal ties with earlier migrants.⁴⁴ Misra's survey of Jamshedpur⁴⁵ reveals that 80% of migrants were from rural areas and over 74% before 1940 and afterwards came to city because relative and friends living there. "These sub-systems in the city permit and encourage links between the members and their regions of origin. This may take the form of visits to the home village, specially on festive occasions. These social groupings serve as vehicle for sustaining in the urban milieu certain ceremonies and traditions of rural areas in question".⁴⁶ To their respective villages these members carry urban attitudes, certain piece of information, dress-patterns and above all some overtones of urban living, which atleast creates an urge, discontentment and an agitation in the minds of other villagers, who try and make all efforts to realize these in the life of their off-springs. To me this is a beginning of a deep-rooted change. To the urban centres on one hand they provide an integrated community engaged in change through open competition but looked from the viewpoint of broader society, they may retard industrial urbanisation. I feel that groups of Marwaris of Rajasthan, and Madrasis (popularly known) of South India found in Calcutta and Delhi respectively can be cited as examples. Consequently, the migration has set in some trends of change in rural as well as urban areas and have thus established new rural-urban interactional patterns in transitional India. In the period 1881-1931, these patterns were probably different as compared to 1941-61 transitional India.

Turning to other interactional patterns, we would discuss changed economic situations. In the wake of industrialization, as has already been pointed out village and city have become interdependent on each other. Rural communities are enveloped under new industrial urban economic order and the age-old rural-urban marketing patterns are changing. M. S. A. Rao⁴⁷ in his "Social change in Malabar" and Bailey⁴⁸ in his work have reported the decline of the traditional economy and the increasing importance of traders and middle men. Mazumdar⁴⁹ reports about the rural contact with the city through the marketing of village surplus—fruits, milk, grain and animal products etc. This is the growing pattern in the transitional India but in the pre-industrial India as District Gazetteers point out, the channel was just the reverse. Urbanites had set up rural markets rather than to encourage the villagers to come to the cities. Thus a shift is traceable with resultant changes in both rural and urban areas.

Another dimension of rural-urban link in pre-industrial India has been through a complex social net-work. Itinerant merchants, tax collectors or other governmental officials have passed to and for between rural-urban sub-system. Though in some sense the phenomenon persists even in transitional India but marked changes in the pattern can be noticed. More and more village shops have come into being, more and more villagers are getting occasions to come to cities and as such the tempo has become a two-way process. Actually, the number of in-going government officials has increased over these 1941-61 spans with different intent and purpose and therefore the attitude of these officials is quite different. They, more and more have been going into the villages as helpers and extension agents to push some developmental schemes, and consequently the change in the attitude of villagers is remarkably pronounced. They no longer have an attitude of awe and fear and have developed or are developing a sense of partnership with the officers. Internal village politics apart, a change in attitude is readily visible.⁵⁰ My own field trips have lead me to believe it. A police official is no longer feared that much, as before.

Myron Weiner⁵¹ has demonstrated using Rudolph's⁵² material that because of socio-political awakening in the cities and a historical background of national freedom movement and Satyagraha—some groups were organised in urban areas to bring organised demands and pressures on the government of the day. This no longer could remain an isolated urban phenomenon and caste associations as well as occupational group-associations were organised all over India. We all know of Harijan Sewak Sangh, Adimjati Sewak Sangh, Meena Sabha, and Patwari Sangh which have tried to bring pressure on government to get certain gains.⁵³ This of course is a post-independence phenomena but has a background extending to the remotest period of pre-industrial rural India. This also illustrates that rural has gained a perspective from

urban but the urban has the support of temporal depth.

As late as couple of years after independence (say 1953-54) education was essentially the monopoly of urban elite. Consequently, the ideas from outside reached the city first and thereafter to villages through small towns.⁵⁴ Currently, the entire society is in flux as far as the education is concerned. More and more village boys are getting secondary education within the rural region and many come to cities for higher education. It has become more secular.⁵⁵ This may however be noted that Irene Tinker⁵⁶ has voiced a concern about the flight of educated from village to city, consequently impoverishing the village and regional leadership. This finds support from my data regarding Rajasthan rural-leadership⁵⁷ given below:

TABLE 4

*Educational Data of Village and Samiti Leaders
(Two-Samities of Jaipur District)*

Education	Percentage
Illiterates	57.9
Middle school or less	36.2
Above middle—below high school	2.2
Above high school	3.8
	100%

(N=185)

Source : Author's unpublished Ph. D. Dissertation—Indiana University, U.S.A., 1966, on "Emerging Patterns of Rural Leadership in India", p. 56.

It is probably the broad nature of educational inputs and outputs which are pushing educated young villagers to the cities even though they are not very much wanted there. Consequently, external variable of education has also touched these two sub-systems and has really contributed to the establishment of some—interactional interlinkages in between urban-rural communities. Changes through this variable in rural areas have probably been minimum but in urban areas growing discontent among students, and forceful organised agitations in other groups like bank employees etc. owe something substantial to this variable.

Many more factors could be listed to trace the rural changes as well as consequent rural-urban interaction patterns but a recent phenomenon of sudden industrialization and urbanisation need to attract our attention. In India the percentage variation of great cities with a population of 2 lakhs or more has been continuously mounting, implying thereby that a certain section of rural community has thus been displaced and covered under the definition of 'urban community'. The following table would give some insights:

TABLE 5

Great Cities with a Population of 2 Lakhs or More

Years	Percentage variation over time
1921-31	+11.0
1931-41	+13.5
1941-51	+12.4
1951-61	+21.5

Source: G. S. Ghurey, *Cities and Civilization*, Popular Prakashan, Bombay, 1962, quoted as Table VI, p. 112.

A clear sharp shift is visible during 1951-61, indicating on one hand the migrations but the coverage by extending the boundaries of cities and thus displacing the adjoining rural population cannot be denied. Such a displacement warrants rapid adjustments on the part of rural communities which for quite sometime they are not able to do and they suffer the pangs of this new phenomenon. We all know, how small the cities of Delhi, Kanpur, Calcutta and Jaipur were in pre-industrial—pre-1931 era and we all also know in what a rapid manner without counting the distress of adjoining rural communities their municipal limits have been extended in the name of urban-improvement. This has set untold forces of urban and rural living on each other affecting their adjustment and interactional patterns for both. I need not go into detail.

Lambert stressing on special aspects of this problem writes⁵⁸:

"We would anticipate, therefore, that the greatest dislocation of rural patterns by a town would follow when the town has grown suddenly and almost exclusively around one of the newer economic functions for which there is no provision in the traditional network of relationships. We find

that the impact of sudden industrialisation and urbanisation is not to draw the villagers into the new economic pursuits so much as to displace them from their old occupations without absorbing many of them into the new ones. A spectacular example of displacement without absorption occurred at Rourkela and Durgapur. . . . Vithal Babu reports that in the four years prior to October, 1958, land acquisition took in 20,488 acres, affecting 32 villages, of which 16 were fully evacuated”.

Babu⁵⁹ reports that 2400 families were displaced affecting 12,878 able-bodied persons. Similar state of affairs was repeated at Bhilai where 2000 families were displaced.

This description indicates that both the processes are at work, viz. displacement of rural population (i) with absorption into new occupational, economic and social order, and (ii) without the absorption. It may however be noted that in both the cases some rural-urban adjustments and consequent structural-organizational changes do ensue. Lambert somehow fails to recognise the changes. It would be inaccurate to say that no changes would result in the two sub-systems when a major strategy like—sudden industrialization is introduced in the broader system. More and more studies from the inter-disciplinary point of view are needed in this area.

Finally let me quote the findings of my own study⁶⁰ which have bearing on the central theme of this paper. For want of space specific tables would not be reproduced but only the findings based on the data would be reported.

Committed to the national ideology of ‘democracy and welfare state’ several measures in post independent era were adopted to effect certain far reaching socio-economic changes in rural India. The introduction of the scheme of Panchayati Raj is the most recent of all. Two Samities and four villages under a controlled design were studied with a view to find out the ‘emerging patterns of rural-leadership’. It was discovered that with the introduction of Panchayati Raj, considerable socio-political power went into the hands of leaders at the Samiti and Panchayat levels. In this context, Samitis and Panchayats have assumed an important place in the state’s political structure. The state level political leaders, realizing this, have tried to extend their spheres of influence and interaction to these two levels. State level leaders apparently make efforts to win the allegiance and support of village and Samiti leaders to strengthen their position at the state level. Consequently, new power-relationships have emerged and political parties have extended their influence to the village level. Under this new structure, state level leaders have to maintain favourable relationships with local leaders, as their very continuance as state leader depends upon the support of those newly-powerful local leaders. It is because of these reasons that the following two distinct phenomena occur : (1) State level leaders, through the vehicle of

their respective parties extend support to Samiti and village level leaders, and thus form alliances. These alliances, of course, reflect the internal structure of the party at the state level. (2) Samiti and Panchayat level leaders, realizing their structural importance, put pressure on each other and on state level leaders to give them patronage in order to ensure their support.

To illustrate the above contention, let me quote a case-study. At the state level, Congress Party was divided into two prominent factions. Let these be called the faction of X and faction of Y. Both X and Y had always been in conflict of some kind or the other. It was discovered that X was trying to extend his area of influence so as to have showdown with Y at some later stage. On the other hand Y was mustering up his own followers. In both the Samities two groups of Sarpanchas were found, one was in favour of X and the other against him. The Pradhan of Darbarpura was X's man. A young Bania lawyer, Sarpanch of one of the panchayats of Darbarpura belonged to Y's group. In all the discussions and decisions there used to be exchanges in between Pradhan and Bania Sarpanch. Both Pradhan and Bania lawyer had their followers in all the village panchayats of the Samiti. Followers of X and Y from both panchayats and samitis used to go to the residence of their respective leaders to tell them about the local affairs and enlist their support. Once, a particular group attempted a vote of no-confidence in a village while the other group managed to kidnap the deciding vote, a night before the election day. This case is cited to illustrate the contention that state level affairs get percolated to the village level and vice-versa.

Regarding the second aspect, local leaders from both Samitis make it a point to meet regularly with state level leaders in order to measure their mutual support. Consequently, Panchayati Raj has interlinkages from village to state and can only be properly understood when studied in the structural perspective of the state. The new power-relationships between Panchayat, Samiti, and state leadership assume their fullest meaning only when studied with the awareness that Panchayati Raj is operating in villages which are located in an environment of Samiti and state politics defined by a set of socio-political relationships. Consequently, the dynamics of interpersonal relations between Panchayat and Samiti level leaders can be understood only in the context of socio-political structure of the state in which they operate.

Another salient change is marked in rural-Rajasthan, viz. the active interest of ex-Jagirdars and their agents in local, regional and state politics. Gradually, attempts are made to force their entry into the leadership groups at all these three levels. It must be understood that in the earlier rural structure, feudal chiefs, money-lenders, traders, Brahmins and other agents (Rajputs) held most of the political and social power. The tactful and successful handling of other groups by feudal chiefs had such an integrating effect that inter-group conflicts between these groups were at a minimum. Neverthe-

less, these groups did acquire organizational skills necessary for manipulating the relevant socio-political forces of rural Rajasthan. With the abolition of the *Jāgīrdārī* system, the integrating force was removed, and these skillful groups became free to operate in rural scenes. The introduction of Panchayati Raj provided to them the opportunities to use their earlier acquired skills in securing positions of power in the scheme. The emergence of feudal chiefs and Jagirdars to positions of power can also be explained in structural terms. Their intimate familiarity with the existing social structure of rural Rajasthan in conjunction with forced changes in the earlier feudal structure constrained them to attempt their re-entry into the system through the legitimate and institutional procedure of Panchayati Raj.⁶¹

The emergence of feudal lords as local-regional leaders may also be explained consequent to external forces. In urban areas feudal-lords, ex-Jagirdars and their agents have organized themselves in the form of a strong political party, which provides a much needed organizational complex to their rural-counterparts. The game is thereby complete. Within the rural-sub-system ex-Jagirdars are skilled enough to exploit local resources in their favour whereas in external urban sub-systems they find a strong organized support element. It is no longer a secret that Maharani Gayatri Devi of Jaipur and Maharawal Luxman Singh of Dungarpur took extensive tours and pains to organise rural ex-Jagirdars for panchayat as well as national elections. We all know what role, Gwalior Rajmata played in Madhya Pradesh. We certainly can predict as to what would be the manifest and latent functions of the abolition of Privy Purses, if carried through by the ruling party.

From the above discussion, it is evident that both urban and rural forces are contributing to the emergence of ex-Jagirdars as leaders. To talk of still a basic factor, I believe that national ideology of democracy, when put to practice generated host of socio-political changes in both rural and urban areas and as such has made a beginning of new sets of interaction patterns in-between them.

In the end, it may be summarized that village is no longer a socio-cultural whole and needs to be studied in terms of its regional and state interlinkages. Changes of certain types have been taking place in both rural and urban areas ever since their existence and can best be understood through a study of interactional pattern. It is a healthy trend that national ideology is effecting certain changes in both rural and urban areas.

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SUPRIYA SINGH

A Metropolitan Concept for India and Some American Assumptions

THE study of metropolitan areas has been most extensive and specialized in the United States. This is understandable, since 62.8% of the total population lives in metropolitan areas.¹ Because of the amount of literature available on the American metropolis, it becomes more or less unavoidable to start from their definitions and assumptions. So, in this paper an attempt will be made to see how far one has to accept, modify or reject some of the current American assumptions about the metropolis, for the study of metropolitan areas in India. Such a study can be suggestive at best, for the Census does not provide an adequate metropolitan concept.

The Census classifies data on urban areas in India in terms of six classes of "towns", ranging from a population of under 5,000 to over 100,000. The 1961 Census has attempted to go a little further, in its demarcation of "town groups".² In the sense that it seeks to identify an urban unit beyond arbitrary administrative boundaries, it is an advance on the Census concept of the "town", and a step in the direction of the delimitation of "metropolitan areas". However, it is not as useful as it could have been, because of the vagueness of the criteria used and the nature of the unit which is to be demarcated. In the main, it suggests three factors which must be kept in mind in deciding whether a particular town is to be included in a "town group" or not. These are communication facilities and commutation with the most populous city in the cluster, "economic inter-dependence of function", and a continuity of urban characteristics.

The first criterion is the most crucial one as an index of the social and economic integration of the region. But no attempt has been made to lay down any desired percentage of the labour force of an administrative division, that should commute daily to the main city. In the absence of such a standard, it is very difficult to decide whether a town should be included in the "town group" or not. This lapse is all the more regrettable, for the Census does not provide any data on the 'place of work' and 'place of residence'. From traffic surveys and railway statistics, one can at best get the total amount of commutation, and not the percentage of commuters according to the town, village or the tehsil as the case may be. This perforce must be provided by the Census to get an adequate idea of the spread of the "metropolitan area".

The second criterion of "economic interdependence of function" is too elastic to be meaningful. It is recognized that there must be some "economic interdependence", but the critical question relates to the level and intensity of such interdependence. The Basic Development Plan for the Calcutta Metropolitan District (CMD) points to at least four expanding regions of economic interdependence: the CMD, the hinterland, (i.e. the States of West Bengal, Assam and Bihar, 24 districts of Uttar Pradesh, 6 districts of Orissa and Manipur and Tripura), East India and the Eastern Zone.³ Which region is to be defined as the "town group"? The Census sees it fit to ignore all of them giving figures for the city of Calcutta alone, not considering it necessary to form a larger "town group".⁴

The third criterion, the "continuity of urban characteristics" constitutes of some definite and some not so definite factors. The Census definition of the "town" stipulates that an urban area must not have a density of less than 1,000 per square mile, a population of 5,000 and at least three-fourths of the labour force must be occupied in non-agricultural occupations. But there are other urban characteristics which are to be decided according to the discretion of the Superintendent of the State.⁵

The concept of the "town group" was devised to mark out urban areas as units of planning and development.⁶ It has failed in this objective, for it is too restricted. A comparison of figures for "town groups" and "metropolitan areas" which are taken by the planning organizations as their planning units, highlights the limitations of the Census concept.

The table below will show that the "town group" is not adequate as a planning unit. But this does not imply that the concept of a metropolitan area is necessarily one oriented towards the need for planning. Like "economic interdependence" planning too embraces different regions, depending upon the nature and immediacy of the project in hand. The most crucial factor in defining the boundaries of a metropolitan area is the extent and pattern of the prevalent commutation for purposes of work or recreation. One has to stress on the actual commutation which does take place and not the possibility of

commutation alone. One can therefore, agree with McKenzie that the metropolitan area is "essentially the commutation area of the central city".⁷ Taken as planning unit it would probably include a greater degree of potentially urbanizable land than the 'commutation' definition would warrant.

TABLE 1

Metropolitan Areas and Town Groups for the Major Urban Areas in India

Name of the urban area	Population of Town Groups (Millions)	Population of Metropolitan Area (Millions)
Calcutta	2.9	6.7*
Bombay	4.2	5.3**
Delhi	2.4	2.9†
Hyderabad	1.3	2.7††
Madras	1.7	2.3‡

Sources: For figures on town groups, *Census of India*, Paper No. 1, of 1962, Final Population Totals, Table V, p. 254.

*CMPO, *Basic Development Plan, Calcutta Metropolitan District, 1960-1986*, CMPO, Calcutta, 1966, Table 3, p. 8.

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†Rough figure obtained by adding the population figures of the Union Territory of Delhi, Ghaziabad, Faridabad Town Groups, Sonapat, Gurgaon, Bahadurgarh and Ballabgarh.

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The "town group" concept is not adequate for the study of metropolitan areas in India, for yet another reason. It does not lay down any minimum population size. Both Greater Bombay with a population of 4,152,056 and Coonoor with 52,992 are town groups.⁸ There is no reason for specifying a minimum if one is just pointing out "urban clusters". But for a metropolitan concept the implication of bigness is essential. As W. A. Robson puts it,

a metropolis "connotes a great commercial, industrial, cultural or governmental centre".⁹

The above discussion of the Census concept of "town group" has shown that it is inadequate for the study of metropolitan areas, for three reasons. Firstly, the criteria it employs for the demarcation of its "urban clusters" are too vague. Secondly, it professes, rather unsuccessfully, to provide a planning unit, while the "metropolitan area" as understood here is primarily the area of commutation. And lastly, it does not have the connotations of bigness, so essential for the definition of a metropolis.

The next problem is how to formulate an adequate metropolitan concept for India. The planning organizations while drafting master plans for their respective cities, have had to demarcate metropolitan areas. But they have not tried to lay down any specific criteria which could be used for the general demarcation of metropolitan areas in India. The CMD, for instance is constituted of the continuous built up area along the Hooghly, the adjacent villages with a density of not less than 1,000 persons per square mile, and the surrounding urbanizable region.¹⁰ There is no discussion on the essential characteristics of a metropolis. The Delhi Development Authority attempts at some theoretical discussion, when faced with the problem of defining the boundaries of the Delhi Metropolitan Area. It makes two main points: firstly that non-contiguous urban areas which are strongly linked to the central urban area should be included, and secondly that administrative tehsil and district boundaries should be ignored.¹¹ The first point is never seriously disputed, the second has been made only at its peril. Because of its disregard for administrative boundaries, it has to present data for the wider eight tehsil regions instead of the metropolitan area, due to the non-availability of data. It is because of these practical data considerations, that the metropolitan area must be seen in terms of administrative divisions, rather than "urbanized area" alone.

One has thus to look outside India for models of a possible formulation. Here, the most basic definition is that of the International Urban Research Unit of the University of California. This itself, takes the SMSA definition of the U.S. Census as its point of departure. It does away with the country as an administrative unit, modifies the "city" concept, lays down a larger population minimum, and does not depend upon criteria like telephone calls and newspaper coverage as possible indices of metropolitan integration.¹² The definition of a metropolitan area given for purposes of international comparison is as follows:

An area with 100,000 or more inhabitants, containing at least one city (or continuous urban area) with 50,000 or more inhabitants and those administrative divisions contiguous to the city (or to the continuous urban area) which meet certain requirements as to metropolitan character.¹³

These requirements are further elaborated. Firstly, at least 65% of the administrative division's labour force must be engaged in non-agricultural economic activities.¹⁴ Secondly, the administrative division must be contiguous to any division included in the metropolitan area. The factor of contiguity is more decisive than that of labour force.¹⁵ If data on labour force are not available population density relative to the metropolitan area or the next more distant ring of administrative divisions can be substituted.¹⁶

This is a valuable definition. It has, however, to be modified in many ways, before it can suit conditions in India. The minimum population figure for the metropolitan area should be raised to 10,00,000 and that of the city (or continuous urban area) to 500,000. This is essential if one is to preserve the notion of *bigness inherent in the metropolis*. If one fixes 500,000 as the minimum for the city, twelve cities (or thirteen, if one regards Hooghly as a separate city) in terms of the 1961 Census can be examined as possible nuclei for metropolitan areas. These cities are: Greater Bombay, Calcutta, Delhi, Madras, Hyderabad, Bangalore, Ahmedabad, Kanpur, Nagpur, Poona, Lucknow and Agra. It is true that not even all the state capitals are included in the above list. It is also conceded that this population limit may err on the side of too great an exclusiveness. But a lowering of the metropolitan area minimum to 100,000, i.e. to all census cities, would mean considering cities like Kurnool and Malegaon as metropolitan areas.

The requirements for metropolitan character have to be further expanded and modified. The definition of the metropolitan area quoted above, does not lay down any standard for commutation, in contrast to the SMSA's preoccupation with it. One of the criteria used by the U.S. Census is that at least fifteen per cent of the workers residing in the contiguous county work in the county containing the largest city in the SMSA.¹⁷ Likewise, one can stipulate that at least fifteen per cent of the labour force of the contiguous administrative division work in the most populous city of the metropolitan area. If the commutation be in the reverse pattern, i.e. from the main city to the contiguous administrative division, then the commuters from the city must constitute at least fifteen per cent of the labour force of the administrative division. This percentage for commutation is not based on data for the pattern of commutation in metropolitan areas today. Some village studies yield some information on this subject as a side issue. For instance, M. S. A. Rao's study of a village 7 miles from the Delhi Railway Station, revealed that commuters formed 28.4% of the total earning males in the village in 1964.¹⁸ Data gleaned like this, are much too fragmented and scattered to give more than a suggestion of the degree of metropolitan integration. However, the U.S. standard seems to be reasonable.

One could also keep the 65% average of non-agricultural labour, that the International Urban Research definition suggests. It could be further qualified by stipulating that this non-agricultural labour should be in spheres of the

modern economy, rather than the traditional. This would be an important modification, since a large part of rural labour has traditionally been engaged in non-agricultural work, even if their occupations were oriented to supplying the needs of agriculture. One cannot be more precise on this point, due to the paucity of available data on the outer regions of metropolitan areas in India.

Regarding density, one could take the Indian Census standard for the urban area, i.e. a density of 1,000 persons per square mile.

The proposed definition of metropolitan areas in India would then read as follows:

An area with 10,00,000 or more inhabitants, containing at least one city (or continuous urban area) with 500,000 or more inhabitants and those administrative divisions contiguous to the city (or to the continuous urban area) which meet certain requirements as to metropolitan character.

These requirements are as follows:

1. Fifteen per cent of the labour force of the contiguous administrative division should commute to the main city (or continuous urban area) of the metropolitan area or 15 per cent of the labour force of the contiguous administrative division should be constituted of commuters from the main city.
2. Sixtyfive percent of the labour force of the contiguous administrative division should be engaged in non-agricultural occupations.
3. The contiguous administrative division should have a density of not less than 1,000 persons per square mile.

With the availability of more precise data on the different aspects of metropolitan areas in India, this definition could be modified, criticized or rejected. But, for the present, some such definition is needed, not only for matters of policy making, economic development and planning, but also to illuminate the new dimensions of urbanisation in India. It would be a 'spread' concept in that it would not be relegated to one class of urban areas in the Census, but point to the relatedness of urban areas in the different classes of the Census. With the introduction of the concept of the "metropolitan area", one would also be in a position to evaluate more adequately the growth of the large cities of India. For instance, the growth of Calcutta city, to take the most extreme example, does not convey the degree and the nature of the related growth in the surrounding region.

TABLE 2

The Growth of Population in the CMD and Calcutta, 1921-61

Year	CMD pop. (million)	Percentage variation	Calcutta city pop. (million)	Percentage variation	Index of Pop. Growth		
					CMD	Calcutta	CMD (outside Calcutta)
1921	2.25		1.05		100	100	100
1931	2.54	+12.9	1.22	+16.2	113	116	110
1941	4.31	+69.9	2.17	+77.9	191	207	179
1951	5.73	+19.7	2.70	+24.4	238	257	222
1961	6.72	+25.1	2.93	+ 8.5	298	279	316

Source : *Census of West Bengal, 1961, 1951, 1941, 1931, 1921* ; *District Handbook of West Bengal, 1951*. Quoted from CMPO, *Basic Development Plan, Table V, p. 10*.

From the above table, one can perceive a change in Calcutta's population growth over the decades. Till 1951, Calcutta city was growing at a faster rate than the CMD as a whole. But the 1951-61 decade saw a reversal of this trend with the CMD growing at approximately three times the rate of the city.¹⁹ The slower growth of the city is visibly related to the faster growth of the CMD as a whole. In keeping with the trends seen in the central districts of very large cities like Paris, London, New York, Chicago, Moscow, Amsterdam and Milan for instance, the central wards of Calcutta have declined in population over 1951-61. Figures for that decade show that the "outer ring of the central areas is now growing two and one-half times faster than the twin central cities". It was partly the result of a movement out of the crowded city of Calcutta, which in turn resulted in the slow growth of the city.²⁰ So, it is only when one takes the "metropolitan area" as the unit for study, that one can adequately study some aspects of urban growth.

The above discussion has centered on formulating a metropolitan concept for India, and showing its indispensability for the study of urban areas. For the purpose of a census definition, one has to restrict oneself to statistical criteria and indices, relating to population size, density, pattern of commutation and the composition of the labour force of the sub-areas of the metropolis. However, there are some broader implications which have become part of the concept itself. Some of these are American assumptions related to their particular level of technology, the predominance of metropolitan areas in the national scene or to the special features of their political structure and process. An attempt will be made to point to some similarities and points of difference between the American and Indian metropolitan areas, in order to analyse the further implications of the metropolitan concept in India.

One of the most basic notions regarding the metropolis is that there is a dichotomy, if not an opposition between the "central city" and the "suburbs". Underlying this assumption, is a whole conceptualization of the process of metropolitan growth. With industrialization, the cities attracted migrants from the less developed areas. The cities grew, became satiated and with the advent of the automobile, burst open. Now, it is the central city which languishes, while the suburbs flourish. The dichotomy between the "central city" and the "suburbs" is expressed and heightened in the social, political and economic life of the metropolis. Increasingly, there is a tendency for the well-to-do to move out into the suburbs. A house in the suburbs, with its garden for the children to play in, has become quite a standardized middle class aspiration. The city still has its wealthy, its single people and its lower class labour, but it is fast losing a lot of its white collar working force. More recently, the social rift has been dramatically widened by race connotations; the Negroes in city ghettos and the white Anglo-Saxon Americans in their sheltered suburbs. The small governmental units in the suburbs, also serve to strengthen the feeling of a separate community.²¹ With reapportionment, the dichotomy between the suburbs and the city is going to find political expression, the suburbs gaining more representation in the process.²² It is also reflected at the level of national politics. The President has to depend upon the big cities for his votes, while the Congressmen look towards suburban units for their electoral support.

The above analysis of the central city/suburb dichotomy is perforce a generalized and simplified picture of the American situation. A conclusive comparative analysis with the Indian metropolitan scene cannot be carried out, because of the uneven nature of the data. However, some tendencies can be noted, and modifications suggested.

Figures for the two biggest metropolitan areas of India, i. e. Calcutta and Greater Bombay show a decline in the rate of growth of the central city in

favour of the outlying portions of the metropolis. Calcutta's case has already been discussed. Bombay shows a similar pattern.

TABLE 3

Annual Growth Rate by Component Units by Sex for 1921-1961

Decade	Bombay City	Suburbs	Extended Suburbs	Greater Bombay
1921-31	M 0.31	M 1.74	M 100	M -0.07
	F 0.23	F 1.79	F 0.98	F 0.36
1931-41	M 2.31	M 3.62	M 1.11	M 2.38
	F 2.78	F 3.81	F 1.05	F 2.76
1941-51	M 4.44	M 8.73	M 4.73	M 5.05
	F 4.32	F 8.23	F 2.54	F 4.85
1951-61	M 1.42	M 6.63	M 7.42	M 2.88
	F 2.27	F 7.04	F 7.73	F 3.81

Source: Municipal Corporation of Greater Bombay, *Report on the Development Plan for Greater Bombay*, 1964, Table VI.

From the decade 1911-21, the suburbs started growing faster than the city. 1951-61 saw the Extended Suburbs growing faster than the suburbs which were still growing faster than the city. However, in neither the plan documents of Calcutta nor of Bombay is there any elaborate discussion of the factors which contributed to the faster rate of growth in the outlying areas. CMPO mentions the fact of an exodus from the twin cities of Calcutta and Howrah, but gives no percentages for it, in relation to natural increase and migration.²³ The Bombay Plan mentions the fact of the availability of open spaces for migrants.²⁴ One can only conclude that both migration and suburbanization contribute to the greater growth of the outer areas of the metropolitan regions. Suburbanization does not play as great a part in this growth in India as in the United States. This statement can be substantiated if one notes the proportion of rural population in the main metropolitan areas. This is shown in Table 4 below. It is not comprehensive, the main gap being figures for Madras, due to data not being readily available. In these metropolitan comparisons for India, one has to keep in mind the fact that the figures are not based on any one uniform definition of the metropolitan area.

TABLE 4

Rural Population in some Metropolitan Areas of India

Name of the Metropolitan Area	Rural pop. (millions)	Metropolitan pop. (millions)	% of rural pop. in Metropolitan Area
Calcutta	0.69*	6.72	10.3
Bombay	0.64**	5.28	12.1
Delhi (Union Territory)	0.30†	2.65	11.3
Hyderabad	1.38††	2.70	51.1

Sources : *CMPO, p. 8, obtained by subtracting urban population from total population.

***Traffic and Transportation*, p. 72.

†*Census of India, 1961, Delhi District Census Handbook*, p. 14.

††*Hyderabad Metropolitan Study*, p. 10.

A substantial portion of the Indian metropolis is composed of rural areas, which would be further apart from the high status suburbs than would be the case with the central city. Thus, one has to definitely conceptualize the Indian metropolitan area in terms of the central city, the suburbs and the villages. The more basic dichotomy, in social, economic and political terms is between the urban and the rural, rather than between the central city and the suburbs.

The metropolitan areas, leave alone the suburbs, do not play a significant part in determining the trend of national or state politics. Even in Madras, where the DMK was in control of the Madras Corporation, before it came into power in the State, the party manifestoes make no special appeal to the metropolitan area. This is because the metropolitan areas do not constitute a politically significant proportion of the population of their respective states or of the nation. Table 5 gives the relevant figures. Even though they are not of political concern, electorally speaking, they are still important as centres of political ferment. Witness the industrial unrest in Calcutta and the widespread and effective use of the "gherao" as a technique of political action. In passing, one can note that three of the states with major metropolitan areas have gone to opposition parties. This was due to a number of other factors also, but metropolitan discontent may be a significant one among them.

TABLE 5

The Population of Major Indian Metropolitan Areas in Relation to the Population of Their Respective States—1961

Name of the Metropolitan Area	Population of the Metropolitan Area in millions	Population of the state in millions	% of Metropolitan Area population in the state (approx.)
Calcutta	6.72	34.93	20%
Bombay	5.28	39.55	13%
Delhi (U. Terr.)	2.66	2.66	100%
Madras	2.3	33.69	6%
Hyderabad	2.7	36.00	8%

- Sources : 1. For Metropolitan Area figures as stated earlier for Table No. 1.
 2. For state figures, *Census of India*, Paper No. 1 of 1962, Supplementary Union Table 1, pp. 320-321.

A comparison of the above table with Table No. 6 giving figures for three of America's largest cities, would conclusively explain the difference in the political importance of metropolitan areas in both the countries. The figures given are for cities and not for metropolitan areas.

TABLE 6

Proportion of the Population of the Three Largest Cities in the United States to Their State Population

Name of the city	% of state population (1959 estimates)
New York	
Chicago	
Philadelphia	

Source : R. S. Friedman, "The Reapportionment Myth" in E. C. Banfield (ed.), *Urban Government*, The Free Press of Glencoe, New York, 1961, p. 61.

Another issue which stimulates great discussion in the area of metropolitan studies, is that of political fragmentation. Today, it is regarded as a major characteristic of the American metropolis.²⁵ Political fragmentation is simply another way of saying that there is no one centre of decision making. Too many people have too much to say in a single problem so that things don't get done, or get done badly. Political fragmentation in New York, for instance, has three dimensions. Firstly it is administrative confusion within the City Administration. Secondly, within the city, there are independent 'public authorities' like the Port of New York Authority and the Triborough Bridge and Tunnel Authority which are trying to achieve different objectives in the same field. The third dimension of fragmentation is the fact that the metropolitan area as a whole has no co-ordinating focus for planning and the execution of its plans. It is really the last two which are results of metropolitan growth. The city, when it found itself financially, administratively and politically unable to provide the essential services, created "public authorities". These are defined

as those agencies functioning outside the regular structure of government which rely primarily upon revenue-bond issued to be amortized by the collection of user charges.²⁶

As far as the last point regarding metropolitan co-ordination is concerned, it was the result of the spread of metropolitan areas over a large number of governmental boundaries.

Political fragmentation is not a characteristic of the American metropolis alone, but of metropolitan areas in general. It has very rightly been made a subject of great concern in discussions of metropolitan areas. Fragmentation in the CMD can rival fragmentation in any American metropolis. There are two main factors which lead to it in Calcutta. The first is a lack of administrative co-ordination at the local, State or Federal levels of government. In the case of transportation, for instance, there are at least three concerned departments at the State level and three central agencies with a stake in Calcutta's transportation system.²⁷ The second reason is the multiplicity of government units in the CMD. There are at least three municipal corporations, 36 municipal bodies, 2 Improvement Trusts, the Commissioner of Police, four district administrations, together with Panchayats and Zilla Parishads, and other special agencies and companies operating in the CMD.²⁸

Metropolitan government has very serious implications for India's general governmental structure, and ideology. There are three main solutions to the fragmentation of government in the metropolis: the extension of governmental boundaries to coincide with those of the metropolitan area, the creation of a new level of metropolitan government and the formation of "public authorities"

to take the service functions of the metropolis 'out of politics'.

The first course of action, if it were politically possible would raise serious problems of administration. The boundaries of the metropolitan area would continue to expand, making it necessary to continually readjust the governmental unit. Some such attempt is being made in Bombay. The jurisdiction of the Bombay Municipal Corporation has been changed twice in the course of the last decade. Moreover, if the unit of government did become regional in scope, one would need some effective unit for local government, which would start the process of fragmentation within the unit, instead of between the government units.

In order to achieve some measure of co-ordination in the CMD, it has been suggested by the CMPO that a metropolitan level of government be created. In the main, this will consist of the Calcutta Metropolitan Planning Authority and seven Metropolitan Functional Authorities. It is hoped that the CMPA will be given adequate powers to become the focal decision-making body of the metropolis. It would not only be the intermediary between the State and the metropolis, but also will be entrusted to mediate on behalf of the State, with the Centre.³⁰ In this function, it would be aided by the creation of the Metropolitan Development Fund.³¹ The metropolitan level will thus increasingly compete with the State level for importance, even though it is only a part of the State. Implications for the Federal System are more crucial in the case of the Delhi metropolitan area which includes substantial portion of Haryana and Uttar Pradesh. There the State is part of the metropolitan area. So, with the development of metropolitan areas, one would have to reconsider the relations between the local, State and Federal levels of government in India.

The use of "public authorities" in the CMD, may improve the service aspect of the metropolitan area but it will reduce the importance of local government. Experience in the United States has shown that in many cases the public authority device has been particularly shortsighted in the solution of metropolitan problems.

To sum up: The first part of the paper considered the problem of formulating a concept for metropolitan areas in India. This involved a critical review of the major definitions of metropolitan areas in India and elsewhere. A tentative definition was offered, to be able to study the different aspects of urban growth. The second part of the paper explored the further implications of the metropolitan concept for India, with reference to some current American assumptions in the field. This led to an extended discussion of the central city/suburb dichotomy and the implications of political fragmentation for the Indian governmental structure. The discussion was intended to be suggestive rather than conclusive, to focus attention on the problem rather than give the final solution.

APPENDIX I

1961 CENSUS DEFINITION OF TOWN GROUPS

One of the innovations attempted in 1961 in the presentation of urban statistics is by the way certain clusters have been grouped to denote "town groups". It was realized that in certain clusters the urban area is not really limited only to the notified boundary of any one or two places but embraces satellite towns and cities, industrial towns or settlements close to this urban area, which may even be surrounded by rural areas. There was, therefore, an attempt from the very beginning to define well-formed clusters and treat them as town groups, the main determinants being facility of road and railway transport, and the interchange of population on account of business and work. These town groups emerged in two types: (a) town groups which were made up of a cluster of neighbouring municipalities only; (b) town groups which were made up of a cluster of municipal and non-municipal localities. In actual practice, in those cases where there are no clear articulation of extension, any town falling within a radius of 2 to 4 and some times 5 miles of the periphery of the main and most populous city was empirically examined in respect of continuity of urban characteristics, communications, possibility of satisfactory commutation and economic interdependence of functions to determine whether the town should be incorporated in a town group. These town groups were devised with the intention of marking off areas of conglomerate growth which as a whole rather than the individual units should henceforth receive attention in matters of planning and development. Further, a town group also suggests the spatial directions of future growth.

Source : *Census of India 1961*, Vol. 1, India, Part II-A(i), General Population Tables, pp. 51 and 52.

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PRADIP SINHA

Urbanization and the Bengali Middle Class

THIS paper is a study of urbanization on a very limited scale. It seeks to present some aspects of the growth of an urban community—or a class—the urban ‘middle class’ in Calcutta. It describes the position of this community approximately from the seventies of the last century to the first decade of the present century. But, while, in a strict historical sense, the description appears to be valid for a period much earlier than the upper limit set for this seminar, it can, from another angle, be regarded as a study in the background of the Bengali urban community even at the present moment. The reality of this background is felt very often in our time.

The seventies of the 19th century may be regarded as a rather arbitrary starting-point; but in the present study, this period, as a starting point, is convenient. By the seventies the middle class urban community in Calcutta may be said to have taken a consolidated shape after more than half-a-century of change in the new urban set-up. English education and the growth of new professions and services had produced a decisive effect on the character of the community. Significantly, the period is characterised by the beginning of a sense of middle class dilemma in the face of economic difficulties like the question of employment in the limited sector open to this class. The journals of the period are full of comments on the problems of middle class existence, and indicate the growth of a pattern of community that was almost peculiarly Bengali. No other concept applies to it better than the indigenous concept of *bhadrolok*. The substitution of the term ‘middle class’ is permissible only because the term itself is highly elastic.

The *bhadrolok* was in no sense an exclusive product of the 19th century.

But the 19th century may be said to have done almost the same thing to him that the victorian age did to the English middle class. In the peculiar social environment of Bengal, *bhadrolok* meant primarily the high caste Hindu gentry of Bengal and was applied to other sections of society, or rather to individuals and persons belonging to those sections, only by analogy. Here there is a broad qualitative difference from the western concept of middle class. The second point of difference is more quantitative. The great bulk of the Bengali *bhadrolok* partook of the character of rural gentry. The nineteenth century had been adding some new dimensions to the phenomenon of *bhadrolok*, a new middle class dimension being represented by professional men like lawyers and doctors. Pressure on land or 'ancestral acres' might have been creating a kind of 'agrarian crisis' for the Bengali gentry, strengthening the process of migration to the towns or the metropolis. But the major component element of the *bhadrolok* community still remained rural.

In the metropolis, the Bengali middle class had no real working class or even labouring class base, spontaneously developing from the Bengali society. The pattern of migration of workers or labourers to Bengal's metropolis shows the essentially weak trend of migration of working population from Bengal. The metropolis, or rather the metropolitan complex of Bengal, did not become an area where any significant degree of communication could develop between component parts of its population. The absence of a large and substantial Bengali working class, which could indeed develop, given the requisite degree of migration from rural Bengal, even within the limited industrial complex of the later 19th century, appears to have had a certain etiolating effect on the Bengali middle class. This was particularly evident in the great bulk of the *bhadrolok* community which had become indigenous to Calcutta and its neighbourhood.

The labouring class base of the metropolitan society had from the inception of the metropolis been influenced by the peculiar nature of migration to the city. Even as early as the late 18th century the palanquin bearers of Calcutta were almost all natives of Orissa. In the large domestic service base of the metropolitan society (110,000 or nearly 1/8th of the inhabitants in 1901) the migration of 'chasi' Kaibartas (cultivators) from Bengal districts constituted a significant element, but that did not counter the striking disparity in the industrial sector created by the singular weakness of the trend of migration from Bengal districts to the growing industrial areas in and around Calcutta. The growth of the industrial town of Howrah from a congeries of villages in mid-19th century was due almost entirely to migration from Bihar and U. P. Nearly half the inhabitants of Howrah in 1911 were born in the U. P. or the Province of Bihar and Orissa and only 45% spoke Bengali, while 47% spoke Hindi and 3% Oriya. The growth of mill towns in the 24-Parganas similarly owed little to migration from Bengal districts.

In Bhatpara (1911) four persons spoke Hindi to each person speaking Bengali, in Titagarh 75% spoke Hindi while 11% spoke Bengali. On a rough calculation in most mills two-thirds of the hands were composed of up-countrymen. In Titagarh, a significant proportion of mill labourers came from Telugu-speaking region.

The pattern of migration from suburban districts to the metropolis proper does not show any marked tendency on the part of artisans and labouring classes towards migration. The largest single group of migrants from the suburban districts was composed of high caste people who may be said to have belonged to the class of *bhadrolok* or gentry. From Bihar and U. P. the migration was almost wholly of labouring castes. The most important element was represented by *chamārs*. Almost all the shoemakers and cobblers as also a very large proportion of mill labour were men of this caste. Some of the professional and artisan castes of Bengal similarly failed to supply the metropolitan demand as also the demand in the interior of Bengal, mostly in the cases of washermen and milkmen.

One reasonable explanation of this peculiar nature of migration, especially in the field of industrial labour, may be found in two repeatedly emphasised features of Bengal's agricultural economy, namely the comparative smallness of the class of landless agricultural labourers in Bengal and the high wages of labour in rural Bengal, the comparison being made between Bihar and U. P., on the one hand, and Bengal, on the other. *The Statistical Account of Bengal* which profusely quotes from the reports of district collectors makes frequent reference to the scarcity of labour in Bengal districts, especially those of North and East Bengal. The *Account* describes the situation in the seventies. The census reports of the later period also refer to the scarcity in some detail. The report of 1911 seeks to quantify the phenomenon, though it admits the drawbacks of such quantification.

“Another point which calls for notice is the difference between returns from Bengal, (on the one hand), and Bihar and Orissa, (on the other). Those dependent on agricultural labour in the latter province are more than twice as numerous as in Bengal, the actual excess being nearly four millions. Some part of the difference may be attributable to the higher standard of census work in Bihar and Orissa: a quarter of a million more persons were entered simply as labourers than in Bengal. (But) the real explanation is that the number of landless field labourers is far greater in Bihar and Orissa than in the richer province of Bengal. The well-to-do Bengali cultivators depend largely on the annual influx of labourers from Bihar and Orissa for reaping their crops, and complaints are frequent of the inadequacy of the supply of local labour. At other seasons of the year, they have a system of mutual exchange of labour and co-operate to work in another's field in turn. . . .

“In no part of Bihar and Orissa is the percentage of field labourers to

the general population less than one-tenth, the minimum being reached in Orissa, which, in this, as in other respects, resembles Bengal. The maximum is reached in Bihar, where over one-fifth of the total population subsists by field labour. In Bengal, on the other hand, the proportion falls to 5 percent in North Bengal, and to three percent in East Bengal, where the population consists (chiefly) of Musalmans who till their own fields. It rises above 10% only in West and Central Bengal, where the relatively high figure is probably due to some extent to a higher standard of accuracy..."

The Labour Commission Report of 1896 gives figures of wages of agricultural labour in one district of Bengal, namely Burdwan, and the rates prevalent in some districts of Bihar and U. P., which formed important sources of supply of labour to Bengal. The following table is taken from the Report:

Rates of Monthly Wages in Rupees

	1880	1885	1890	1894
Burdwan	9	8	8	7
Patna	3 to 4	4 to 5	4 to 5	4 to 5
Muzaffarpur	2 to 3	3 to 4	3 to 5	3.75 to 5.62
Hazaribagh	4	3.75	4.5	5 to 6
Cawnpore	3.87	3.5	4	4 to 5
Mirzapur	3.25	3.5	3.75	4
Lucknow	3	4	4	4

In the report of the Famine Commission the evidence of one of the witnesses (B. C. Basu, Assistant to Director of Land Records and Agriculture, Bengal from 1884 to 1887) points out differences in wages of agricultural labour in East Bengal and the Bihar districts.

"What wages are paid in East Bengal?"

"Nowhere less than four annas and sometimes five to six annas. . . . About double the wages in Bihar—more than double. And about double what they are in Nadia. The southern part of Nadia is very poor and the wages are very low there".

While the lack of sufficient economic incentive to migration was undoubtedly important, an explanation based on purely economic data leaves certain gaps. In the evidence before the Famine Commission quoted above the following statement regarding the sub-metropolitan district of Nadia deserves notice: "There are more landless labourers in Nadia than in other parts of Bengal. The Muchis (cobblers) are an important caste in Nadia.

Many are day-labourers. There are large numbers of Nadia labourers in Jessore". And again, "The southern part of Nadia is very poor and the wages are very low there".

It appears from the evidence that the poor of Nadia tended to migrate generally to the Sunderbans, where work was particularly hazardous, rather than to the metropolis, despite its contiguity.

Local labour supply in the suburban region around the metropolis might have also been affected by the ravages of Burdwan Fever. The devitalization consequent upon the malarial epidemic of the sixties and seventies might have made the local labouring population largely unfit for heavy factory work. But this explanation is applicable to a limited region.

The employment of Bengali labour also depended to a certain extent on the attitude of European employers in mills around Calcutta. There was a general impression among them that the Bengali worker lacked the staying power of the Bihari or U. P. worker. This was attributed by some to a deficiency in Bengali character—the Bengali's tendency to avoid heavy physical work for a continuous period of time, sometimes described as 'the habit of shirking'. The conditions of industrial living around Calcutta did not, however, justify the tone of the employers. Yet the Bengali could not perhaps overcome the traditional pattern of work and leisure in rural and agricultural Bengal. A large number of East Bengal peasants went to Arracan and Assam, and peasants from portions of Central and West Bengal went to the Sunderbans. But the labour was entirely seasonal. Throughout India in the nineteenth century industrial labour retained many of the features of agricultural background. Such features were also present to a marked degree in the Bihari and U. P. workmen in Calcutta, who could never answer the description of 'depeasantized urban proletariat'. For various reasons, some of them discussed here, the agricultural pull worked with a particular intensity on Bengali villagers.

If the foregoing analysis is broadly accepted, the *bhadrolok* community that had grown in the metropolitan region in the 19th century Bengal lacked some of the essential features of an urban middle class. It had failed to develop a working-class base; its original mercantile promise had not been fulfilled.

The census figures for 1881 indicate that a large number of small private industrial concerns were owned by Brahmins and Kayasthas in Calcutta. The castes from which the private owners were mainly drawn were the Kayasthas (65) and Brahmins (61), the Telis and Tilis (28), Sadgops (26) and Marwaris (19). But this can produce a wrong impression. Of the one hundred and five registered companies in Calcutta only seven had Indians as directors, the number of Bengalis in those seven is not specified.

The educated *bhadrolok* community in the metropolis did produce men

interested in technology and industry. But that interest was not backed by capital and remained largely academic. The small industrial concerns in general could not be as remunerative or viable as inland trade and indigenous banking, of which the great centre was in Burrabazar where the Marwari community had acquired complete hold from the mid-19th century. Among the indigenous bankers in Calcutta in 1906 almost all were Marwaris. The Marwari control over inland trade in two most vital commodities, jute (especially in North Bengal) and cotton piece-goods, had been established by the seventies of the century. The industrial and commercial efforts of the Bengalis during the ensuing Swadeshi period were somewhat quixotic, an interesting description of which occurs in the memoirs of Rabindranath Tagore.

The metropolitan 'middle class' in Bengal furnished the most remarkable example of the operation of education as a force in the formation of a community. The force underlies both the triumph and failure of the Bengali in the 19th century. The radiation of this force from the metropolis outwards into the interior of Bengal created a striking homogeneity of outlook.

The peculiar strength of the force of education in 19th century Bengal finds expression in some of the testamentary documents of early 19th century. Rajmohan Sen of the famous banker family of Sens (the banking house of Mathuramohan Sen) in early Calcutta writes in his will not about the revival of the great banking tradition of the family (the house fell a victim to a speculative crisis in early 19th century) but of the future education of his children.

"Further, when my eldest son begins to attend the English college to study, he will get *sicca* twenty seven rupees for the expenses of his studies including the hire for his *palankeen*. Further, when my second son begins to study English, he will get at the rate of *sicca* ten rupees per month for the expenses of his studies. The *palankeen* that is retained for my eldest son he will use that *palankeen* and when my third son that attend to study English, then setting aside the arrangements mentioned above, for the purpose of *these three going together to their studies*, my executors will purchase and provide them with a *palankeen* carriage and a horse for the sum of three or four hundred rupees, and paying at the rate of *sicca* twenty-two rupees per month for the said vehicle—as long as my sons attain not severally the age of sixteen years, paying for the expenses of their education at the rate of *sicca* ten rupees per month, they will get my sons educated".

In another testament dated 1833 Brojonath Mitra, a wine merchant, instructs his sons:

"You will defray the annual expenses of the Issore Sarodeea Poojah etcetra, and charges for food and clothing of everybody and the monthly

wages of the Persian Tutor, the school master and the Gooroo Mahashoya and provide the requisites for writing and pay the expenses of my residence in Benares. . . .

My mercantile business that is carried on in the Dhurmotollah you two persons will carry on that, if any loss occurs, you will see the result for two or three years and then give it up". (A detailed schedule of lands and houses bought by Brojonath, the wine merchant, around Calcutta is attached to the testamentary document.)

History often fails to find adequate documentary material to illustrate even a pervasive social attitude. Such an attitude is taken for granted by the generation under its influence and later generations are deprived of concrete facts for illustration of many of the unspoken but basic beliefs of the past. The two wills cited above are thus of special value. The singular attachment of the Bengali *Bhadrolok* to education stood for an attitude that tended to infiltrate downwards, notably into some higher artisan castes and the well-to-do peasants. This probably tended to create gaps in the Bengali artisan community, notably in Calcutta. An employer speaks of Bengali carpenters with sons educated upto the matriculation or F. A. level, looking for 'decent' employment. While this concentration on education on the part of a whole community or class produced some spectacular results as in the personality of Vivekananda, it had, on the whole, a narrowing effect. Education became a kind of ritual and the original dynamic content tended to become progressively circumscribed.

**Trends of Change
in Educational Structure and Pattern**

V. K. BAWA

Social and Economic Change in the Godavari District: 1851-1901

INTRODUCTORY

THE present districts of East and West Godavari are among the most fertile rice-producing areas in the country. They owe their prosperity to the river Godavari which takes its source in a village called Triambak, near Nasik, Maharashtra State. After a course of nearly 900 miles it runs into the Bay of Bengal and receives the drainage from 115,000 sq. miles. Its maximum discharge is calculated at $1\frac{1}{2}$ million cubic metres per second. The width of the Godavari at Rajahmundry is two miles and at Dowleshwaram at the head of the delta it is four miles wide. At this point it divides into two streams, the Gautami Godavari and the Vasishta Godavari. A few miles above the port of Narasapur, a branch known as the Vainatheyam breaks off to the east, forming the island of Nagaram. The three portions of the delta are referred to as the western, the central and the eastern deltas. The Western delta consists of the *ta'luqs* of Narasapur, Bhimavaram, Tanuku and parts of three other *ta'luqs* in West Godavari District. The central delta consists of the *ta'luqs* of Ramachandrapuram, Amalapuram and Razole (Nagaram) in the East Godavari District. The eastern delta consists of the *ta'luq* of Kakinada in the East Godavari District.¹

An anicut and a net-work of canals were constructed in the mid-nineteenth century by the Madras Government at the initiative of Captain Arthur Cotton. The decades following the completion of the anicut saw a great increase in the production of agriculture and the general prosperity of the district.

This paper is based on data for the old Gadavari District, which, during the period under study, was made up of the present East and West Godavari districts, in addition to the *ta'luq* of Bhadrachalam. The Godavari District then consisted of the following *ta'luqs*.²

1. Kakinada
2. Pithapuram
3. Ramachandrapuram
4. Amalapuram
5. Tanuku
6. Narasapur
7. Bhimavaram
8. Ellore
9. Rajahmundry
10. Peddapuram
11. Yernagudem
12. Tuni
13. Kottapalle
14. Bhadrachalam and Rekapalle

A study of the Godavari area raises several questions as to the extent to which development projects result in increased welfare of the areas in which they are located. What are the benefits of a settled revenue system and irrigation canals? Are they negated by increases in the population? To what extent did the provision of irrigation facilities result in increased cultivation? What effect does agricultural prosperity have on other sectors of the economy? Is there a diversification of the economy of the district? To what extent are the increased benefits siphoned off into unproductive expenditure instead of on expenditure intended to promote public welfare, such as education, public sanitation, libraries etc? And what type of planning is necessary to ensure that increased prosperity does lead to increased welfare?

The aspects of economic and social change which have been taken up for study in this paper are population, agriculture, trade, education and health. The difficulty of obtaining access to materials for the nineteenth century, and the problem of interpreting and utilising these materials, have made it necessary to confine the scope of this paper to those questions on which data were readily available. Data on population, trade, and education have been utilised to a large extent. There is scope for further collection and analysis of material relating to agriculture including land holdings, tenure relationships and cropping patterns, changing occupational structure, public health, and other aspects of social and economic change in the district.

ECONOMIC CONDITIONS AND ADMINISTRATIVE SET UP

The first English factory on the Eastern Coast of India was established at Masulipatam in 1611, and was given protection by the ruler of Golconda in 1632. Subsequently factories were set up at Injaram, Bendamurlanka and Madhvpalyam (Madapollam) located respectively at the mouths of the Gautami Godavari, Vainatheyam Godavari and Vasishta Godavari. The Dutch had factories at Jagannaikpur (now a part of Kakinada) and at Palakol a few miles up-river from Narasapur. The important ports at the time were Coringa, Kakinada and Narasapur. At present the only port of any importance is Kakinada. The manufactures in the Dutch and English factories consisted of fine textiles which acquired considerable popularity in Europe.³

The Northern Circars had become a part of the Company's territories as a result of the battle of Condore (Chandurti) which took place on December 3, 1758. The Nizam who was the nominal overlord of the circars, was forced to enter into treaties with the English in 1759 and again in 1766. By the treaty of 1766 the entire Northern Circars with the exception of Guntur were ceded by the Nizam to the English in return for an annual tribute of Rs. 9 lakhs. Till 1794 the East India Company managed its territories in the Northern Circars through provincial councils headed by a chief at Masulipatam.

In 1794 the system of provincial councils was replaced by three Collectors in the Godavari area with their headquarters at Kakinada, Mogaltur and Rajahmundry. In 1802 the three Collectorates were merged in the newly created Rajahmundry district. A permanent settlement was introduced in this district in 1802-03 on the model of that in Bengal. The district consisted of thirteen ancient *zamīndārīs*. For ten years thereafter there was practically no land under the direct management of the Collector. When Sir Thomas Munro, the Governor of Madras, visited the Northern Circars in 1822, he criticised the permanent settlement which permitted the continuance of the *zamīndārs'* hold on the country and recommended the gradual extension of the government territory by the annexation of estates which defaulted in revenue or were involved in rebellion against the government. As a result of this policy, the number of villages under the government increased from 10 to 876 between 1813 and 1851.⁴

The decline of the district from its prosperous condition in the 18th century appears to be due primarily to the change in British policy in regard to the import of textiles from India. The government factories were abolished in the early nineteenth century. Not only did the export trade decline, but the revenues of the district were adversely affected. The average land revenues declined between 1815-1828 and 1829-1842, from Rs. 18.72 lakh to Rs. 16.12 lakh. This fall in revenue was ascribed by an enquiring officer, Montgomery, to the depressing effect on the economy of the area of the with-

drawal from circulation of large sums of money which had formerly been earned by the weaving community.⁵

The seasons of 1831-32 to 1840-41 were characterised either by poor rainfall or cyclone or famine. The year 1833 saw the great Guntur Famine which also extended to the Godavari delta.⁶

In 1842 government sent an able member of the Civil Service, Sir Henry Montgomery, to examine the causes of the decline of the districts. In his report submitted in March 1844 he attributed the condition in the districts to (1) the abolition of the government factories and the decline in the cloth trade, (2) the inefficient management of the *zamīndārs* and proprietors and the consequent rack-renting and impoverishment of the villages, and (3) the lack of adequate means of irrigation. He recommended a change in the revenue system, which gave rise to the *ryotwari* settlements of 1862-63 and 1866-67.⁷

As a result of the recommendations of Sir Henry Montgomery, Major Arthur Cotton of Madras Engineers was asked by the Madras Government in 1844 to investigate the matter and submit a report. After a preliminary survey, Major Cotton recommended taking advantage of the immense natural advantages of the region by the following four kinds of works:

(1) The embankment of the rivers, to secure the crops from destruction by the river floods.

(2) Dams, with channels of irrigation leading from the river, to bring its water from the level of its bed to that of the surface of the land.

(3) Surplus channels, to lead off the floods caused by the local rains, from the flat lands to the sea.

(4) Raised roads and bridges, to allow the conveyance of produce to the markets, and to the coast, through a country which is otherwise, from its nature, impassable during the rains.

The engineer pointed out in his report that, although the Godavari delta was smaller in extent than the part of the Cauvery delta in the Tanjore district, it was much more fertile, and both the local rains and the amount of water in the river compared favourably with that in Tanjore. And yet the Rajahmundry district paid with difficulty a revenue of 21 lakh, as against Rs. 45 lakh, which the inhabitants of Tanjore paid with ease, and continued to increase in prosperity in every way besides. The main object of the improvements proposed would be to lower the cost of production of food in terms of cash, labour, and acreage, but this would inevitably, in his opinion, have an effect on the general prospects of the district improving its economic conditions such as the possibility of reviving the cotton trade. "The price at which any article of trade can be supplied in any country must depend

mainly upon the rate at which feed can be obtained, and upon the price alone depends the admittance of any article into a particular market. Had rice been obtainable with less labour, when the English cloth begin to undersell those from these districts, the Indian cloth might have been sold at a lower rate, for everything must depend upon the price of food”.

He anticipated that food could be produced at one-half the cost it then was, and even if the cloth trade was not restored as a consequence, “the prosperity of the district must increase; either the food itself will become an extensive article of export, or something else will be produced or manufactured with advantage in consequence of the abundance of food”. He pinned his hopes mainly on the development of sugar plantations. In addition to these indirect benefits, there would be the direct increase in land revenue to the extent of a hundred per cent.⁸

The work was completed by the end of March 1852 and Cotton received the congratulations of the Government of Madras for its satisfactory completion.

The total expenditure upto December 1852 for the anicut and subsidiary works was Rs. 15,17,076.⁹

Subsidiary work on the anicut continued, and when Walch wrote his Manual in 1896 he estimated the total expenditure on the works at Rs. 1,28,08,662.¹⁰

The system of revenue collection was radically altered as a result of the introduction of *ryotwari* settlement for the new Godavari district between 1860 and 1867. A major portion of the area under the control of government was surveyed and settled at this time. The settled area was divided into upland and delta according to whether it lay outside or within the influence of the irrigation projects. The soils were grouped into a number of classes and certain crops were taken as the standard for each class. The share of government was generally estimated at half of the net produce after deducting cultivation expenses and making an allowance for unfavourable seasons. The settlement resulted in an increase of revenue demand amounting on the whole to four lakh or 26 per cent over the figures of 1859-60.

The settlement continued in force for thirty years. A new settlement was completed in 1900. The prices had more than doubled in many cases, and the new settlement resulted in a considerable increase in assessment.¹¹

POPULATION

In the previous section we have referred to the report by Sir Henry Montgomery on the declining prosperity of the Godavari delta consequent on the closing down of the government factories, the inefficient management of revenue administration and the lack of adequate irrigation. These changes are also reflected in the declining population of the Rajahmundry district

during the period 1820 to 1850. The following are the figures of population given by Montgomery in his report.¹²

1821-22	..	738,308
1826-27	..	654,260
1830-31	..	695,016
1838-39	..	570,481
1839-40	..	543,446
1840-41	..	533,836
1841-42	..	546,809
1842-43	..	561,041

This decline in population is ascribed by the 1871 Census Report to the severe famines which afflicted the area in 1824 and 1832-33. The latter famine was known as the Guntur Famine because it primarily affected the Guntur district. The population of that district declined from 456,754 to 267,426, a decline of more than one third of the population, from 1821-22 to 1836-38. The following table indicates that there was a substantial decline in population in the Guntur and Godavari districts, while there was a fairly substantial increase in the neighbouring districts of Ganjam and Vizagapatam.¹³

Population in 1822, and 1836 to 1838

District	<i>Faşlı</i> 1231 (1821-22)	<i>Faşlı</i> 1246-47 (1836-38)	Net variation and percentage of increase
Ganjam	332,015	438,174	+ 106,159 + 31.9%
Vizagapatam	772,570	1,047,414	+ 274,844 + 35.9%
Rajahmundry	738,308	695,016	- 43,292 - 5.9%
Masulipatam	529,849	544,672	+ 14,823 + 2.8%
Guntur	454,754	267,426	- 187,328 - 41%

The following figures indicate the change in total population in every five years from 1851-52 till 1871, in the same five districts. It will be noticed that the figures for Godavari have registered a substantial increase.¹⁴

Madras Population According to Different Census, 1851 to 1871

Districts	Census of 1851-52	Census of 1856-57	Census of 1861-62	Census of 1866-67	Census of 1871	Net vari- ation percen- tage of increase 1851-71
	Total	Total	Total	Total	Total	
Ganjam	926,930	949,747	1,136,926	1,235,790	1,520,088	+593,158 63.9%
Vizaga- patam	1,254,272	1,284,243	1,415,652	1,934,558	2,159,199	+904,927 72.1%
Godavari	1,012,036	1,081,703	1,366,831	1,427,472	1,592,939	+580,903 36.5%
Masuli- patam	520,866	628,808	1,194,421	1,296,652	1,452,374	+3,614,225 33.1%
Guntur							570,083	593,213
	1,090,949	1,222,021				

From 1866 onwards the Census figures are available for *ta'luqs* and it is possible to estimate the increase in population separately for the *ta'luqs* irrigated with canal water and the so-called "upland *ta'luqs*" which were not benefitted by canal water. A tabular statement attached as Annexure I indicates that the *ta'luqs* which extensively benefitted from canal water had in 1891 a population of between 500 and 600 per square mile, a very high density of population. The population in other *ta'luqs* had also increased substantially during the period, evidently as a result of elimination of scarcity conditions in the area; the indirect effects of the irrigation system. But the density of population was considerably less than that in the irrigated area.¹⁵

The increase in population from 1871 to 1901 is indicated in the following figures.¹⁶

Variation in Population 1871-1901

District or State	Persons			
	1871	1881	1891	1901
Ganjam Agency, Ganjam	1,520,088	1,503,301	1,589,477	1,689,142
		246,303	307,326	321,114
		<u>1,749,604</u>	<u>1,896,803</u>	<u>2,010,256</u>
Vizagapatam Agency, Vizagapatam	2,159,199	1,790,468	1,943,211	2,082,662
		694,673	859,781	850,988
		<u>2,485,141</u>	<u>2,802,992</u>	<u>2,933,650</u>
Godavari Agency, Godavari	1,592,939	1,780,613	1,939,440	2,141,917
		10,899	139,342	159,842
		<u>1,791,512</u>	<u>2,078,782</u>	<u>2,301,759</u>
Kistna	1,452,374	1,548,480	1,855,582	2,154,803

*Decade and Net Variations and Net Percentage
of Increase of Population, 1871-1901*

District or State	1871 to 1881	1881 to 1891	1891 to 1901	Net variation and percentage of increase 1871-1901
Ganjam Agency, Ganjam	229,516	89,649	+ 99,665	+490,168
		57,655	+ 13,788	32.3%
		<u>147,304</u>	<u>113,453</u>	

Vizagapatam Agency, Vizagapatam	325,942	153,036 168,672	+139,451 - 8,793	+774,451 35.9%
		321,708	130,658	
Godavari Agency, Godavari	198,213	158,827 128,443	+202,477 + 20,500	708,820 44.5%
		287,270	222,977	
Kistna	96,106	307,102	299,221	702,429 41.5%

These figures indicate that there was a net increase in Godavari district of 708,820 between 1871 and 1901, an increase of 44.5%.

The changing occupational structure of the Godavari district can be partially assessed from the Census Reports of 1871 and 1901; however, due to the lack of adequate data and the change in the basis of classification it is difficult to draw conclusions as to the change in the occupational pattern of the district during the period under study.

In the 1871 Census the total population of Godavari district was shown as 15,92,939. Out of this the male population was stated to be 803,603. Of this figure 67.5% i.e., 542,575 were shown as following some employment. Of these the total population of cultivators was shown as 267,789. The other categories, viz., professional, domestic, commercial, agricultural, industrial and miscellaneous accounted for the balance of 274,786. The largest number of persons other than cultivators were shown as labourers (96,867), domestic servants (32,796), traders (31,995) and manufacturers of dress (31,318). There was also a fairly large class living on properties (23,401) and manufacture of food (20,657).¹⁷

In 1901 the total number of workers in pasture and agriculture was shown as 778,155, out of a total population of 23,01,759. The total number of persons employed in other occupations were as follows:¹⁸

1. Government Service	11,003
2. Personal services	45,127
3. Preparation and supply of material substances	178,149
4. Commerce, transport and storage	25,438

5. Professions	8,061
6. Unskilled labour (non-agriculture)	23,950
7. Means of subsistence independent of occupation	19,642

The 1901 Census report gives figures for emigrations from the districts of Madras Presidency, immigration into Madras Presidency, and internal migrations within the Presidency. The emigration from Godavari district to other parts of India and abroad was 113,722, of which as much as 104,838 was to Burma. There was also considerable migration to Godavari from other districts in the Presidency. The net excess of immigrants into Godavari was estimated at 129,040. The next highest figure was 89,495 for Madras.

As against this, the neighbouring district of Vizagapatam had a net loss of population due to immigration amounting to 146,894. Of this figure 120,940 were reported to have migrated to Godavari district.

The Census Report of 1901, comments that there were few "considerable interchanges" of population between the various districts. Among them were "the transfer of 120,940 persons from Vizagapatam to Godavari, and of 17,524 from the same district to Kistna...." In addition, there seems to have been immigration within the Godavari district from the upland *ta'luqs* (the non-irrigated plains *ta'luqs*) both to the Agency areas (areas occupied by hill tribes and to the irrigated delta areas).¹⁹

The changing population structure of the Rajahmundry district upto 1859 and the Godavari district from 1859 to 1901 indicate the marked changes which took place in the economy of the area due to the decline of the textile industry, the severe drought which affected the area and the subsequent upward swing after the introduction of the settled system of administration, the survey and the settlement of agricultural lands and the construction of the Godavari anicut which irrigated a large extent of territory in the district. These factors appear to have brought in their wake a considerable measure of prosperity which resulted in an increase in population as a result of immigration into the District as well as increase by natural means.

AGRICULTURE AND TRADE

The economy of the district underwent a substantial change during the latter half of the nineteenth century. The land revenue increased from Rs. 20.38 lakh in 1853-54 to Rs. 55.18 lakh in 1894-95. At the same time other

sources of revenue came into prominence, such as excise (Rs. 12.7 lakh), salt (Rs. 10 lakh) and stamps (Rs. 5 lakh). An analysis of the change in the sources of income will be found in Annexure II.

The data regarding the cultivated area available in the *Statistical Atlas of the Andhra State* prepared by the Bureau of Economics and Statistics of Andhra Pradesh. Relevant extracts have been given in Annexure III. It will be noted that wet cultivation increased from 235,886 acres to 386,923 acres. At the same time cultivation of dry crops also increased substantially. The total revenue demand increased from Rs. 32.27 lakh to Rs. 53.5 lakh.

The overseas trade of the *circars* changed with the decline of the textile industry. "The abolition of the East India Company's factories (1829-30) and the competition of Manchester and other European looms had deprived it of nearly all its cloth trade, which had formerly brought into the district many lakh of rupees a year, and given employment to a large community of artisans; an unsuitable form of land tenure, badly administered, pressed heavily on its cultivators; its few irrigation works were neglected; and it frequently suffered from droughts which withered the crops, or from floods which drowned them".²⁰

Commenting upon the abolition of European factories, Sir Henry Montgomery observed in his report in 1844 that "seven lakh annually had been distributed for twenty-four years previous on their (factories') account. In some earlier years the annual disbursements amounted to 10, 11 and 12 and in one year exceeded 14 lakh of rupees".²¹ He continues, "the average land revenue for the fourteen years subsequent to the discontinuance of the company's trade is Rs. 2,59,346 per annum or about 14 percent less than in comparison with that of the same period previous to that event. For some few years subsequently the shock to the commercial community was partly alleviated by the excitement, which private enterprise received by the opening the government withdrawal from commerce afforded, but in the last few years the main trade in cloth has been superseded by the European manufacture...." He concluded: "this heavy drain on the revenue and the cessation of the staple trade have had some effect, especially in the later years, on the resources of the country, on the home demand for agricultural produce and consequently on prices".

The figures given in Annexure IV give the annual value of exports of piece-goods from 1821-22 to 1842-43. They show a progressive decline throughout the period.

The figures given in Annexure V show the data on imports and exports for the period 1844-45 to 1903-1904. The figures show that during the last six decades of the nineteenth century, both imports and exports of the Godavari district increased many times. The volume of sea-borne trade thus increased enormously.

It would be interesting to find out whether there was any change in the composition of commodities of imports and exports. The figures given in Annexure VI give the data on import of grains on the one hand and export of agricultural produce on the other.

It will be observed that while in the year 1844-45 the Godavari district was importing foodgrains worth nearly Rs. 2 lakh, the imports had gone down to Rs. 541 in the year 1871-72. On the whole, the imports of food-grain were declining.

The exports of agricultural produce increased many times. The rate of increase was also stepped up considerably in the 1850's and 1860's.

It appears likely that agricultural production increased due to the increase in the total area cultivated and perhaps also in productivity. This seems to have resulted in a progressive increase in the exportable surplus of agricultural produce.

EDUCATION AND HEALTH

The developments in the Godavari district in respect of the spread of education are of particular significance.

In the year 1826 three schools were established at Rajahmundry, Kakinada and Narasapur under the instructions of the Government. They lasted for ten years and were then abolished. The school at Narasapur had an attendance of 50 pupils at the date of its abolition, which showed that a good number of the inhabitants were anxious to avail themselves of educational advantages when offered to them. The first advance in the new direction was made at Narasapur. When Mr. George Noble Taylor was Sub-Collector, a society was formed there with the object of advancing the case of education. Anglo-vernacular schools were established at Narasapur, Palacole, Penukonda and Achanta, all of which were supported by local subscriptions.

It having come to Mr Taylor's knowledge that some of the principal inhabitants of the village and the wealthy farmers who frequented the markets at these places had been attracted by the novelty of the schools established in them, he conceived the idea of extending the scheme to the whole of the subdivision. In August 1854 he brought the subject to the notice of Sir Walter-Elliot, then Commissioner of Northern *Circars*, stating that he had received applications for the establishment of Primary vernacular village schools from the inhabitants of twenty four villages. They had come forward, he said, of their own accord to solicit his assistance. He proposed to defray the cost of maintaining the proposed schools by a fixed annual addition to the demand of each village at the turn of the annual settlement, which would form a permanent allowance like the allowance given to the village officers, and would be applied solely for educational purposes.

Taylor anticipated that the communities which had benefitted from the

irrigation projects in the Godavari delta would come forward and participate in this scheme. "The spread of sound vernacular instruction may eventually be not the least among the indirect effects of our works of irrigation".²²

He pointed out in this connection that there was a tradition in the *circars* of "self-assessment for public objects", which could be utilized in the interest of education.

In actual fact the system of voluntary contribution for rural schools did not last very long. Taylor himself insisted on opening schools only where the local inhabitants were prepared to contribute. He held that once the decision was taken to open a school and pay the rate, it would become a fixed permanent addition to the village demand. His successors did not act on this theory, and the collection could not be legally enforced. The original enthusiasm for the scheme died out gradually, partly because the new survey and settlement imposed a water tax to which the *ryots* had not been accustomed. An Act was passed in 1862 which provided that in any town or village in which one of the rate schools was in operation, the government were to declare the Act in force for a period of five years and appoint Commissioners to implement it, unless a majority of inhabitants petitioned for the discontinuance of schools within two months of the passing of the Act.

The Act was applied to seventy-two schools in the first year. Thirty-three village schools were closed down when a majority of inhabitants objected to the introduction of the Act. Eleven more schools were closed in 1866 after an enquiry, which showed that the assent of the inhabitants to the application of the Act had not been voluntary.²³

The number of Local Fund Schools increased considerably between 1866-67. There were two lower schools with 51 pupils in 1866-67 and 217 lower schools with 6,093 pupils in 1875-76. During the same period the number of government schools remained almost constant at 4 to 5 and the number of pupils increased from 366 to 551. The number of aided schools increased from 90 to 250, and the number of pupils from 2,042 to 7,002.²⁴

Writing in 1906 the author of the *Godavari District Gazetteer*, Hemingway, stated that the Godavari district at that time stood second in the Presidency in respect of number of colleges, and fifth in the Presidency in respect of the number of lower secondary schools. The number of pupils was also very much above the average of other districts. Primary education, on the other hand, was considerably below the average of the other districts.

The major educational institutions in the Godavari district were the Government College at Rajahmundry, (established in 1853 as a Zilla School and raised to the B. A. level in 1877), the Training College for teachers at Rajahmundry (established in 1883) and the Pithapuram Raja's College at

Kakinada (founded in 1852). These three academic institutions appear to have maintained a high standard of teaching during the late nineteenth and the early twentieth century.²⁵

The latter half of the nineteenth century in the Godavari district also saw the emergence of important literary figures and social reformers who left an impact on the social consciousness of the people of Andhra Pradesh. Prominent among these were Rao Bahadur Kandukuri Veeresalingam Pantulu, Sir Raghupati Venkataratnam Naidu, and Shri Chilakamarthi Lakshminarasimham. They were able to contribute to the revival of cultural life in Andhra, because of the impetus which the new educational system gave to the growing social consciousness in the region.

The general trend in South India at the end of the 19th century appears to have been for groups enjoying high social status to take to western education. "The higher a caste or race stands in the social scale, the better is its educational position, and this is mainly the result of the educational tests imposed by government, as a condition of employment in the public service. Government service is the most respectable employment a man may obtain. Those who gain its prizes are leaders in native society. Hence an English education has become a sort of *sine qua non* for public honour and private respect among the Hindus of Madras".²⁶

The Brahmin community in the Presidency as a whole enjoyed a higher level of literacy than other communities. "The agricultural castes were not so quick as the Brahmins in appreciating the advantages of culture, and consequently fewer of their numbers have advanced to the higher standard of education; neither had they the hereditary intellectual power, which for thousands of years past has been the inheritance of the Brahmins, but notwithstanding all these disadvantages, they are proving themselves to be capable of the highest intellectual training".²⁷

This pattern continued to prevail till the close of the century. While the Brahmans continued to enjoy a higher rate of literacy than other communities, the former's pre-eminence in literacy began to show a decline. Due to the efforts of missionaries the Christians enjoyed a high rate of literacy. The Muslims also had a higher literacy rate than the Hindus generally, although in higher education they enjoyed a less prominent position.²⁸

The census figures for 1901 indicate that out of a population of 21,41,917, only 99,261 were literate. Out of these 90,872 were male and 8,389 were females. The census figures also indicated that the literary rate among the Hindus as a whole was about half that among the Muslims and about quarter that among Christians. The figures are as follows:²⁹

Religions	Total popula- tion	Literate	Illiterate	Literate in English	Percen- tage of literacy
<i>Godavari Dist.</i>					
Godavari Agency					
All Religions	2,141,917	99,261	2,042,656	8,691	4.4%
	159,842	2,751		225	
	2,301,759	102,012		8,916	
Hindus	1,064,505	64,852	999,653	4,732	5.5%
	152,876	2,394		182	
	1,217,381	67,246		4,914	
Muslims	41,383	4,376	37,007	435	10.4%
	2,098	147		10	
	43,471	4,523		445	
Christians	16,066	3,026	13,040	1,093	19.2%
	729	210		33	
	16,795	3,236		1,132	

The diseases prevalent in the Godavari district during the period were malaria, cholera, and small-pox, as well as dysentery, diarrhoea, elephantiasis and beri-beri. The existence of irrigation projects appears to have aggravated some of the diseases such as cholera, because of the prevalent practice of drinking water from the canals, which were liable to pollution. In 1867-70, an enquiry was conducted to investigate the possible connection between irrigation projects and the incidence of malaria. No correlation between the two was established. Cholera was endemic in the delta area and the number of deaths from this cause, in epidemic years ranged between 9,000 and 13,600.

A number of government and mission hospitals were maintained in the district, but the absence of protected water supply was a serious obstacle in improving the health of the people. The pressure of cultivation left little

waste land around the village sites, and as a result it was difficult to provide adequate space for public lavatories.³⁰

The death rate during the period 1866 to 1871 is indicated in the following figures. The exceptionally high rate in 1866 and 1870 was ascribed to the cholera epidemic in those years.³¹

<i>Year</i>	<i>Death Rate per thousand</i>
1866	31.7
1867	17.8
1868	14.4
1869	22.3
1870	27.1
1871	14.9

The death rate in the last decade of the period under study for the district is as follows.³²

<i>Year</i>	<i>Death Rate per thousand</i>
1893	19
1894	19
1895	21
1896	19
1897	27
1898	18
1899	18
1900	30
1901	23
1902	18

These figures indicate that the death rate of the District did not fall substantially, inspite of the increased prosperity due to the irrigation projects.

The growth of urban centres in the District was very rapid. Thirteen towns were listed in the 1901 Census. The population of the three major towns increased as follows:

	1871	1901
Kakinada	17,839	48,096
Rajahmundry	19,738	36,408
Eluru	25,487	33,521

Inspite of the rapid growth of the urban population there were only three municipalities in the District in 1901 viz., Kakinada, Rajahmundry and Eluru.³³ Their achievements in the provision of amenities for public health were not adequate.³⁴

CONCLUSION

The Godavari district was the scene of major economic changes in the latter half of the nineteenth century. Great potentialities for progress were created in the area after the completion of the irrigation system. Both wet and dry cultivation registered an increase. The consequent increase in agricultural production evidently resulted in an enhancement of the exportable agricultural surplus. The import of foodgrains declined progressively. The District seems to have become self-sufficient in food grains.

The population of the District registered a substantial increase, partly due to migration from neighbouring areas, and partly due to natural growth. The provision of new amenities for education at the primary, secondary and college levels led to the emergence of a new educated class. The education at college level appears to have been availed of by the Brahman community to a greater extent than others. The percentages of literacy among Christians and Muslims were higher than that of the Hindus as a whole.

The condition of public health in the District left a great deal to be desired. Epidemics like malaria, cholera and other diseases were common. Public participation in local government, and in the educational experiment of the voluntary village schools in the 1860's was not adequate to sustain civic activities.

The consequences of the economic changes during the period require further examination. It is necessary to ascertain the changes in land holdings, tenure relationships and cropping patterns, as well as the emergence of new caste relationships and group leaderships. Such studies may perhaps indicate the reasons for the unequal pace of development in the economic and social spheres.

Writers on non-economic factors in economic development have pointed out the complex nature of the transition from traditional to modern values. It is now being realised that there may be some traditional values which are contributory to economic development, or which may provide a cushion against some of the shocks involved in a changing society. One possible interpretation of the situation is that the traditional values of the people living in the Godavari area had not sufficiently changed inspite of the changes in economic life.

Population of the Godavari District based on the Censuses of 1866-67 to 1891

Ta'luqs	Census 1866-67	Census 1871	Census 1881	Census 1891	Area in square miles	Population per square mile	Remarks
<i>Irrigated by Anicut Water More or Less</i>							
Cocanada	86,507	91,860	101,075	120,907	397	516	All extensively irrigated by anicut water, except Pithapuram of which only a small portion is so irrigated.
Pithapuram	74,392	79,606	68,161	83,824	507	515	
Ramachandrapuram	184,110	203,583	220,780	261,194	437	585	
Amalapuram	189,233	206,885	227,157	256,081	366	557	
Tanuku	152,052	167,491	188,306	204,048	450	512	
Narasapur	161,537	177,876	200,153	230,325			
Bhimavaram	83,826	92,457	108,599	121,994	416	293	Large area of Tidal swamps in Bhimavaram.
Ellore	118,735	136,875	149,308	171,985	729	235	Only a small part of Ellore ta'luq commanded by anicut water.

Not Irrigated at All by Anicut Water

Rajahmundry	100,924	128,901	131,196	153,559	2,058	75	} Including the portions known as 'agency tracts'
Peddapuram	101,539	111,489	122,052	146,607	506	290	
Yernagudem	130,383	145,715	159,364	179,857	1,249	144	
Tuni	44,234	50,201	68,806	81,601	419	194	'Rampa country'
Kottapalle	..	..	14,756	24,464	820	30
Bhadrachalam and Rekapalle	Transferred from the Central Provinces in 1874		35,656	42,336	911	46	
Grand Totals:	1,427,472	1,592,939	1,795,369	2,078,782	

Source : George T. Walch, *The Engineering Works of the Godavari Delta*, Vol. I, p. 162.

ANNEXURE II

Change in Sources of Income of Godavari District, 1853-54 to 1894-95

Sources of Income	In 1853-54	In 1863-64	In 1873-74	In 1883-84	In 1894-95
	Rs.	Rs.	Rs.	Rs.	Rs.
Land Revenue and water tax	20,38,135	35,48,159	41,50,386	44,03,232	55,18,266
Income Tax	Nil	53,225	948*	25,337**	1,34,451
Stamps	16,219	1,13,611	2,42,845	3,34,363	5,17,198
Abkari	92,529	1,85,712	2,43,497	2,92,930	12,70,280
Opium	Nil	Nil	Nil	2,91,733	2,90,351
Sea customs	33,624	26,800	78,813	6,757	86,588
Salt	2,25,164	3,14,788	5,45,429	8,17,336	10,04,188
Moturpha†	54,792	—	—	—	—
Total :	24,60,463	42,42,295	52,61,918	61,71,688	88,21,322

*In 1873-74 Income Tax temporarily abolished

**'License' tax

†Taxes on manufacturing and trading community

Source : Walch, *The Engineering Works of the Godavari Delta*, Vol. I, p. 154.

ANNEXURE III

Holdings and Revenue for Godavari District, 1870-71 to 1900-1901

Average of five year period ending	Extent of holdings				Assessment						Total remissions Rs.	Total revenue demand Rs.
	Dry acres	Wet acres	Misc. acres	Total acres	Dry	Wet	Second crop	Charges for water	Charges for misc.	Total		
					Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		
1870-71	439321	235886	..	675207	720494	663849	..	876126	..	2260469	53814	3227934
1875-76	431713	290303	2922	724938	694493	767376	9148	975626	6833	2451647	63713	3369103
1880-81	423357	322879	14286	760522	693139	826742	20209	1089976	14980	2645044	111327	3639784
1885-86	461631	323418	5102	790151	700358	828396	22353	1100590	6964	2658661	132581	3489424
1890-91	457016	360065	34741	851822	649388	1893699	26378	279006	25876	2874347	83756	3993883
1895-96	495205	372653	121360	989218	679994	2207924	100881	91394	305128	3385821	57052	4585773
1900-01	516098	386923	104431	1007452	739190	2608695	183942	119438	290923	3942188	3753789	5350601

Source : *Statistical Atlas of Andhra State 1950-51*, pp. 176-77.

ANNEXURE IV

*Value of Exports of Piece-Goods from Rajahmundry District,
1821-22 to 1842-43*

Year	In Rs.
1821-22	9,74,075
1822-23	6,53,730
1823-24	5,97,492
1824-25	7,03,193
1825-26	14,10,756
1826-27	9,25,857
1827-28	9,64,595
1828-29	7,71,526
1829-30	6,56,743
1830-31	2,33,392
1831-32	5,80,506
1832-33	4,85,564
1833-34	3,57,550
1834-35	6,35,901
1835-36	4,91,502
1836-37	4,37,451
1837-38	4,08,819
1838-39	2,26,768
1839-40	1,94,515
1840-41	2,11,353
1841-42	1,67,212
1842-43	1,95,312

Source : Walch, *The Engineering Works of the Godavari Delta*, Vol. I, p. 8.

ANNEXURE V
Imports and Exports, 1844-45 to 1903-04

Period	Total imports	Total exports	Total
1844-45	2,30,000	7,30,000	9,60,000
1845-46	3,90,000	9,10,000	13,00,000
1846-47	4,10,000	13,70,000	17,80,000
1847-48	6,40,000	11,00,000	17,40,000
1848-49	4,40,000	11,50,000	15,90,000
1849-50	3,30,000	9,60,000	12,90,000
1850-51	3,00,000	11,00,000	14,00,000
1851-52	3,50,000	13,10,000	16,60,000
1852-53	2,30,000	16,30,000	18,60,000
1853-54	2,60,000	18,30,000	20,90,000
1854-55	4,50,000	16,30,000	20,80,000
1855-56	5,70,000	19,06,000	24,70,000
1856-57	7,50,000	17,50,000	25,00,000
1857-58	5,10,000	29,34,000	34,44,000
1858-59	7,70,000	10,30,000	18,00,000
1863-64	9,34,026	47,78,780	57,12,806
1864-65	4,45,404	49,10,418	9,35,882
1865-66	6,99,722	80,13,377	87,13,099
1866-67	15,86,830	54,34,043	70,20,873
1867-68	10,24,739	41,51,829	51,76,568
1868-69	14,82,174	69,36,386	74,18,560
1869-70	18,57,958	81,75,949	1,00,33,907
1870-71	16,85,160	53,06,939	69,92,099
1871-72	14,86,580	82,52,876	97,39,456
1873-74	16,20,870	67,19,136	83,40,006
1883-84	24,85,068	1,40,99,520	1,65,84,588
1893-94	37,06,955	1,54,59,084	1,91,66,039
1903-04	38,73,000	1,67,32,000	2,06,05,000

Sources :

1844-45 to 1858-59 (figures for Rajahmundry District) : *Minute of Sir C. E. Trevelyan on the Godavari Irrigation and Navigation with an Appendix showing the progress of Rajahmundry before and since the new Works*, Madras Record Office Library, Appendix p. 2. (Pounds have been converted to Rupees at Rs. 10 = £ 1).

1863-64 and 1873-74 (figures for Rajahmundry District) : Walch, *The Engineering Works of the Godavari Delta*, p. 155.

1864-72 (figures for Kakinada Port) : Morris, *Descriptive and Historical Account of the Godavari District in the Presidency of Madras*, London, 1878, p. 31.

1903-04 (figures for Kakinada Port) : V. V. Ramanadham, *The Economy of Andhra Pradesh*, Bombay, 1959, p. 204.

ANNEXURE VI

*Import of Food Grains and Export of Agriculture Produce,
1844-45 to 1871-72*

Period	Imports of grain	Exports of agricultural produce
	Rs.	Rs.
1844-45	1,90,000	6,30,000
1845-46	2,50,000	7,70,000
1846-47	1,90,000	9,70,000
1847-48	3,00,000	9,20,000
1848-49	2,30,000	10,30,000
1849-50	1,70,000	8,10,000
1850-51	1,20,000	12,40,000
1851-52	90,000	11,80,000
1852-53	30,000	15,20,000
1853-54	40,000	16,70,000
1854-55	80,000	15,00,000
1855-56	17,000	17,00,000
1856-57	1,00,000	16,20,000
1857-58	N. A.	28,00,000
1858-59	N. A.	39,30,000
1864-65	2,10,301	49,10,478
1865-66	33,562	80,13,377
1866-67	30,177	54,34,043
1867-68	822	41,51,829
1868-69	13,599	69,36,386
1869-70	4,693	81,75,949
1870-71	85,752	53,06,939
1871-72	541	82,52,876

Sources :

1844-45 to 1858-59 (figures for Rajahmundry District) : *Minute of Sir C. E. Trevelyan on the Godavari Irrigation and Navigation with an Appendix showing the progress of Rajahmundry before and since the new Works*, Madras Record Office Library, Appendix p. 2.

1864-65 to 1871-72 (figures for Kakinada Port) : *Morris, Descriptive and Historical Account of the Godavari District in Presidency of Madras*, London, 1878, pp. 31-32.

NOTES AND REFERENCES

1. George T. Walch, *The Engineering Works of the Godavari Delta: A Descriptive and Historical Account*, Madras, 1896, Volume I, pp. 1-6.
2. *Ibid.*, p. 162.
3. Henry Morris, *Descriptive and Historical Account of the Godavari District in the Presidency of Madras*, London, 1878, pp. 177-209 for an account of the early European settlements. See also A. V. Raman Rao, *Economic Development of Andhra Pradesh (1766-1957)*, Bombay, 1958, pp. 17-22.
4. An account of the revenue administration will be found in F. R. Hemingway, *Madras District Gazetteers—Godavari*, Madras, 1907, Vol. I, pp. 160-67.
5. Walch, *op. cit.*, pp. 7-8; Morris, *op. cit.*, pp. 193-94; Hemingway, *op. cit.*, p. 167.
6. Hemingway, *op. cit.*, pp. 136-40, 166-67.
7. Walch, *op. cit.*, pp. 7-9; Hemingway, *op. cit.*, pp. 80, 167-70.
8. Walch, *op. cit.*, pp. 9-10.
9. Hemingway, *op. cit.*, p. 84; Morris, *op. cit.*, pp. 138-39.
10. Walch, *op. cit.*, p. 153.
11. Hemingway, *op. cit.*, pp. 169-74.
12. Morris, *op. cit.* p. 292.
13. *Report on the Census of the Madras Presidency 1871*, p. 2. It may be noted that the figure for 1836-38 for Rajahmundry is the same as that given by Montgomery for 1830-31. Perhaps there was no Census in the intervening years. The Rajahmundry district ceased to exist in 1859. The new Godavari district which was created at that time covered approximately the same territory.
14. *Ibid.*, p. 9. However the figures for other districts have also indicated an equally high rate, if not a higher rate, of increase. The reason for this requires further enquiry. In the case of Masulipatam and Guntur (two districts which were combined into one, the Kistna district, in 1859) the increase may be ascribed to the dam on the river Krishna at Bezwada. The increase in Ganjam and Vizagapatam is less easy to explain.
15. Walch, *op. cit.*, p. 162.
16. *Census of India, 1901, Volume XVA, Madras, Part II, Imperial Tables*, Madras, 1902, p. 4.
17. The figures for 1871 have been taken from *Report on the Census of the Madras Presidency 1871*, p. 237.
18. The figures for 1901 have been taken from *Census of India, 1901, Volume XV-A, Madras, Part II, Imperial Tables*, pp. 220-357.
19. *Census of India, 1901, Volume XV, Madras, Part I, Report*, p. 27.
20. Walch, *op. cit.*, p. 7.
21. Quoted by Walch, pp. 7-8.
22. Morris, *op. cit.*, p. 94.
23. Details of this experiment will be found in Morris, *op. cit.*, pp. 92-107.
24. Statement showing the progress of education reproduced in Morris, *op. cit.*, p. 369.
25. Hemingway, *op. cit.*, pp. 153-59.
26. Educational Report by Mr Gover, quoted in *Report on the Census of the Madras Presidency, 1871*, p. 191.

27. *Ibid.*, p. 147.
28. *Census of India, 1901, Vol. XV, Madras, Part-I, Report*, Madras, 1902, pp. 76-78.
29. *Census of India, 1901, Part II, Imperial Tables, Madras, Table VIII*, pp. 76-77.
30. Hemingway, *op. cit.*, pp. 148-52, 196-99.
31. Morris, *op. cit.*, p. 81.
32. Madras District Gazetteers; *Statistical Appendix for Godavari District*, Madras, 1906, p. 4.
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ARUN COOMER BOSE

Pattern of Educational Progress in Pre-independent India

FROM 1871 TO THE DAWN OF THE 20TH CENTURY

THE year 1871 marks an important landmark in the history of education in India. The Government of India Resolution of that year made education one of the responsibilities of the Government and said that it was the primary duty of the Government to assign funds, particularly, for the education of the poor. From that year municipalities and other local bodies also began imposing taxes for local purposes, including education.

However, the educational policy of the Government of India, as laid down by Wood's despatch of 1854, soon came in for strong criticism from the Christian missionaries, who resented the policy of strict religious neutrality.¹ It was, primarily, as a result of the agitation carried out by them that the Indian Education Commission (popularly known as the Hunter Commission) was appointed in 1882.

This Commission was directed "to enquire particularly into the manner in which effect had been given to the principles of the Despatch of 1854 and and to suggest such measures as it might think desirable, with a view to the further carrying out of the policy therein laid down". The Commission recommended that utmost stress should be laid on the development of primary education, which should be 'provided without regard to the existence of local co-operation'. But, in practice, it was entrusted to the care of newly created local bodies.

As regards secondary education, it said that the Government should 'provide the means of secondary education only where adequate local co-operation was forthcoming' and that secondary schools in future should be run on

grants-in-aid basis, while the government would gradually withdraw from the field.² It also drew the attention of local bodies to the need of 'providing or extending' the means of collegiate education; and advised them to establish scholarships for higher studies. It is indeed an irony that "the Indian Education Commission, instead of making education a direct responsibility of the State, provided the government with greater opportunities of shirking their responsibilities in the matter". This policy culminated in the declaration of 1888 that the government's duty was that of pioneers, and now that it had shown the way it could leave the field to private effort.

Since the government was then more interested in the quantitative expansion of English education than in qualitative excellence, it advised both the grants-in-aid schools and colleges to charge fees lower than that of Government institutions. As a result, large numbers of financially insecure and inefficiently staffed institutions came into existence.

In spite of the Commission's emphasis on primary education, the number of secondary schools and their students continued to grow at a faster rate. From 3916 secondary schools with 2,14,077 students in 1881-82 the number rose to 5124 schools and 5,90,129 students in 1901-02. In 1882, there were 7429 candidates for the Matriculation examination, in all the four universities of India put together. But, in 1906 the number was 2,40,963.³

The rapid multiplication of secondary schools necessitated a corresponding increase in the number of colleges, from 68 in 1882 to 179 (of which nine were in Ceylon and two in Burma) in 1902. Forty-two out of 136 colleges in British India were then under Indian management.⁴ There were hardly a dozen medical and engineering colleges in the whole of India, and the number of those who benefitted from these institutions were too few to merit any special reference.

The Hunter Commission further realised that both at school and college levels education was too literary and examination-dominated. Students valued their training mainly as a means for securing marketable qualifications. Since the attention of the school students was 'too exclusively directed to university studies' the universities through their all-important Entrance Examinations indirectly determined the education at school. In fact, school education was not only bookish, but used to be treated not as something complete by itself but as something preparatory to university education. But, since everyone was not fit for university education, and those who would join a vocation immediately after school should be equipped for it, the Commission recommended a bifurcation of courses in the higher classes: one, the 'A' course, leading to the Entrance Examination, and the other, the 'B' course, to fit young men for commercial and other non-literary pursuits.⁵ The Government of India circulated in 1886 a memorandum on technical education to the provincial Governments and in 1888 suggested that drawing and

elementary science should be taught in all but the lowest classes in school, and that in all stages of education study of natural sciences and the ability to observe and to experiment should be encouraged. These, it was believed, would provide the rural population with additional means of livelihood and would enable them to exploit available resources more effectively.⁶

But, little positive effort was actually made to make this alternate course popular, and as the *Quinquennial Review of the Progress of Education in India, 1902-07* admits that 'ninety-five percent of the boys who passed through secondary schools follow the curricula prescribed by the university for the Matriculation Examination'. The Government of India Resolution of 1904 also admitted that, "The purely literary course qualifying as it does both for the university and the government employments, continues to attract the great majority of pupils, and the more practical studies are at present but little in request".⁷ Only in Bombay, where these were recognised as qualifications for government employments, could the new course and the School Leaving Certificate Examination achieve some popularity.

Though the Hunter Commission did not specifically recommend any language as the medium of instruction, it in a way did suggest that English be retained as the medium of instruction in the English Schools and should be taught even in the Vernacular Middle Schools, because 'even an elementary knowledge in English is of unquestionable value, not only by reason of the mental training which its acquisition has involved, but also in regard to his business or other relations with the outside world'.⁸ In the years that followed most students began studying English from Class III, even before they had acquired sufficient command over their mother-tongue or were in a position to understand what they were being taught through an alien language. In most cases, even college students had very poor knowledge of English, and since the vast majority of them used to fail in that subject the standard of its examination too was gradually lowered. As a result, increasing number of students—and there was that pronounced bias for higher education—with poor knowledge of English began crowding the colleges and often found it difficult to follow the lectures delivered in English. Hence began the chain of recriminations, the colleges blaming the high-schools and the latter blaming the lower classes for this sad state of affairs.⁹

Even in colleges, except in Madras, students were not allowed to choose their vernacular as the second language, and dependence on a foreign language, over which most of the students had little command, for their education and examination naturally fostered the habit of unintelligent cramming. The Government of India Resolution of 1904 however, recommended that the medium of instruction for students till the age of thirteen should be their mother-tongue. But, in fact, no real effort was made to encourage the study and teaching of vernaculars and to replace English by these. Rather, Curzon's

criticism of the poor standard of English further added to the existing emphasis on its study. The Panjab University alone in those days used to allow the use of Urdu as the medium of instruction and examination for the indigenous degrees equivalent to the B. A. and the M. A. But, the University Commission of 1902 did not recommend this practice to other universities.

SINCE 1904

The Government of India Resolution of 1904 was a remarkable document on the state of education in India, which to a great extent holds true even to this day. It admitted that 'four out of five villages are without a school. Three boys out of four grow up without education and only one girl in forty attends any kind of school'. As regards the quality of education imparted it pointed out 'that the higher education is pursued with too exclusive a view to entering government service. . . . ; that excessive prominence is given to examinations; that the courses of study are too purely literary in character; that the schools and colleges train the intelligence of the students too little and their memory too much. . . . ; and that in the pursuit of English education the cultivation of the vernaculars is neglected'.¹⁰ But, unfortunately, though the diagnosis was correct the remedy suggested was neither appropriate nor opportune. Curzon took no notice of the demands and susceptibilities of Indians, and planned educational reforms without consulting Indian opinion. So, even those who might have been helpful were antagonised, and in the words of Cunningham he 'left education a battle field'.¹¹

The most outstanding results of Curzon's educational policy were the increased government control over universities (henceforth 80% of the senators were to be nominated by the provincial governments), increased university control over schools and colleges through a stricter scrutiny preceding recognition and grants-in-aid and the sanction of an annual central grant of Rs. 5 lakh for education. But, no thorough over-hauling of the educational system was attempted. In fact, the Curzonian reforms 'assumed the permanent validity of the existing system in its main features and set itself only to improve and strengthen it'.¹² Gokhale rightly pointed out that higher education was 'essentially a question of funds', but that aspect was not sufficiently stressed.¹³

The wave of nationalism that swept over India after 1905 directed Indian attention to the crying need of the backward state of primary education. On 19 March 1910, Gokhale moved a bill in the Imperial Legislative Council asking that 'a beginning be made in the direction of making elementary education free and compulsory'. But nothing was done except the creation of a separate department of education at the centre. In that year, both the Congress and the Muslim League, in their annual sessions at Allahabad and Nagpur respectively, passed resolutions in favour of free and compulsory primary education. After considerable ground-work Gokhale, on 12

March 1912, moved a much more modest resolution regarding free primary education. But, even that too was rejected. Hardinge, in fact, suspected that the nationalist leaders were more interested in primary education than in technical education as the spread of the former would guarantee an increasing flow of discontent literates, who would readily join the political movement.¹⁴

However, in most Indian provinces, except the three Presidencies, primary education was soon made, for all practical purposes, free though not compulsory, and an annual grant of Rs. 50 lakh was sanctioned for primary education alone.¹⁵

Secondary education, however, continued to spread, even without any particular incentive, as is shown by the figures below.¹⁶

	1906-07	1911-12	1916-17	1921-22
No. of schools	5898	6370	7693	8987
No. of students	713342	924370	1186335	1239254

Owing to the stricter measures enforced, in accordance with the recommendations of the University Commission of 1902, many ill-equipped colleges, however, had been disaffiliated, and their number fell from 145 in 1901-02 to 136 in 1906-07. But, no attempt was made to restrict the number of students, which went on increasing, and it caused further crowding of the existing colleges. Gradually, the demand for college education asserted itself, and in 1911-12 there were 140 colleges.¹⁷ Between the years 1904 and 1917 the number of students going for college education, in the three older universities, also more than doubled. The figures below show the number of students appearing in the I. A. Examination in these three universities.

	1904	1917
Calcutta	3832	8020
Madras	2430	5424
Bombay	457	1281

The vast majority of them, however, continued to 'pursue purely literary courses, which do not fit them for any but administrative, clerical, teaching and (indirectly) legal careers'. The Calcutta University Commission of 1917-19 (popularly known as the Sadler Commission) also admitted that attempts at diverting sufficient number of students to non-literary courses had failed.¹⁸

The next important landmark in the history of Indian education was the Government of India Resolution, passed on 21 February 1913. The three cardinal

features of its recommendations were that, the standard of existing institutions should be raised in preference to increasing their number, that primary and secondary education should be given a more practical orientation, and that provisions should be made for higher studies and research in India.¹⁹ Despite its emphasis on qualitative improvement, practical bias and the expansion of primary education, schools and colleges continued to function, more or less, as before with very little change.

Even in the first few years of the Dyarchy, after World War I, when the Congress ministers laid their main emphasis on the spread of primary education, secondary education, as pointed out by the Hartog Committee of 1927-29, continued to grow at a higher rate. In 1921-22, there were 8987 secondary schools with 12,39,524 students, while in 1926-27, their number rose to 11,338 and 18,54,067, respectively. Overwhelming number of students were still pursuing the literary courses for the Matriculation Examination, ignoring the non-literary courses, and were striving for university education.²⁰ As the Hartog Committee points out: "The whole system of secondary education is still dominated by the ideal that every boy who enters a secondary school should prepare himself for the university, and the immense number of failures at matriculation and in the University Examinations indicates a great waste of effort".²¹ While admitting that many universities and colleges had shown marked improvement in teaching and research work, its report adds that, "They have been hampered in their work by being overcrowded with students, who are not fitted by capacity for university education and of whom many would be far more likely to succeed in other careers'. It further pointed out, on the basis of figures for 1927, that in half the Indian provinces more than 60% of those matriculating (more than 80% in case of Bengal) went for college education.²² If so many sought college education, it may be remembered, what Sir P. C. Ray once said, that nearly every matriculate and his guardians tried for his admission in some college, without any consideration for his interests and ability. The net result was over-crowding in colleges and lowering of standard, and in the Indian set up 'A low standard of university work means a low standard of school work' also.²³

This growing pressure for higher education, however, was reflected in the rapid increase in the number of colleges after World War I. In 1922 the number of arts colleges in India was 152, but in 1927 they were as many as 232, and seven new universities were also established between 1920 and 1927.

This increase in the number of colleges was accompanied by a substantial rise in the percentage of students passing the I. A. and the B. A. examinations, which as the Hartog Committee rightly suspected was primarily due to a further lowering of standards, which were already quite low.²⁴

Much of the low standard was, of course, due to the fact that English still continued to be used as the medium of instruction and, for all practical

purposes, as the most important subject both at secondary and college levels. As early as 17 March 1915, S. Rayaningar had moved a resolution in the Imperial Legislative Council 'to have . . . steps taken for making the Indian Vernaculars media of instruction'. But, nothing came out of it or of the educational conference that met at Simla at the end of the war under the chairmanship of Sir Sankaran Nair. The Sadler Commission, however, recommended that at least English and Mathematics should be taught through the medium of English. In practice, English continued for a generation more as the medium of instruction and examination both at high-schools and colleges, and the unchallenged popularity of the literary courses further ensured for English the most important place in the school and college curricula.

Even ten years after the Hartog Committee had met, despite its clear recommendation that attention should be mainly focussed on primary education, out of 1,97,237 primary schools in India in 1936-37, only 2666 were under government control, 72,373 were run by various boards, and the rest 1,22,198 were still in private hands. All these years secondary education received the greater share of public funds and government attention, and the number of secondary schools increased from 13,741 in 1931-32 to 14,414 in 1936-37,²⁵ and this progress took place, it may be remembered, in those years of acute economic slump, when many institutions were forced to close down and government grants were substantially reduced.

Though the Wood-Abbott Report of 1937 emphasised that general and vocational education are not essentially different branches, but the earlier and later stages of a continuous process, the latter continued to be both neglected and looked down upon.²⁶ Though this report admitted that students of the Vernacular Middle Schools were often better educated than those of the English Middle Schools²⁷ and the nationalist leaders continued to harp on the need of education through mother-tongue, the number of the former gradually fell while that of the latter rose continually. The figures are given below²⁸

		Middle Vernacular		Middle English	
		Schools	Students	Schools	Students
1931-32	..	5894	805918	3875	413770
1936-37	..	5609	738570	4123	460717

Enrolment in colleges and universities also increased from 76,216 in 1928-29 to 97,554 in 1936-37, and to 1,58,165 in 1,946-47, and the direct expenditure on them also increased from Rs. 2,84,80,261 to 31,38,308 and then to 6,68,94,612, in the above-mentioned years.²⁹ Still, one feels that, "There had been, no doubt, a great quantitative expansion, but the quality of education had greatly deteriorated".³⁰ The Wood-Abbott Report further recommended the use of mother-tongue as the media of instruction and examination at the high-school level. But half a dozen years were to pass before it could become the practice in most Indian provinces.

By the end of 1937, the Congress leaders had come to power in most Indian provinces. They had their own ideas about the type of education, they believed, India needed, and were busy giving shape and effect to the Wardha Report, which had been finalised in December 1937 and placed before the Haripura Congress in 1938. Both the Wood-Abbott Report and the Wardha Report were placed before the Central Advisory Board, which appointed two committees in 1938 and 1940, under the chairmanship of B. G. Kher to consider these. Though the above-mentioned reports and the Kher Committees stressed the importance of basic education and teaching through mother-tongue, hardly anything was done in the light of any of these suggestions.³¹ The Osmania University (estd. in 1918) alone used Urdu as the medium of instruction even for higher education. Indian mind was then too pre-occupied with the burning political questions of the day, and then the war overtook them all. Commenting on the state of education in India, the Central Board of Education admitted, towards the end of the war, that 'it is inconceivable that within a reasonable period, a really national system could be developed or evolved from what now exists or by methods hitherto followed...in fact, much of the present rambling edifice will have to be scrapped in order that something better may be substituted'.³²

The war, no doubt, temporarily solved the growing problem of educated unemployment by throwing open new avenues of employment, but the problem remained just below the surface as a potential threat to our social peace and progress, and the following statement made in the thirties is still basically true of the whole of India : "Bengal is faced with a tragic situation. While the problem of the educated unemployed is becoming increasingly acute, the university is flooding the province with an ever increasing number of young-men, who are not merely unemployed but also often unemployable".³³

ASSESSMENT OF DEVELOPMENTS IN EDUCATION

The history of education in India is a story of contradictions. Greater emphasis was always laid both by the policy-makers and our public men on the spread of primary education,³⁴ but the secondary and college education (even

university education after 1915) received greater attention and made much better progress. Similar stress was also laid on the crying need of technical education and on making even the so-called general education more vocational and job-oriented,³⁵ but in practice both the secondary and college education remained primarily literary, and it was this over-literary education that made striking progress in the half-a-century before independence. One may add with a sigh, though it was recognised and demanded time and again that education, at least at the school level, should be imparted through the medium of the students' mother-tongue,³⁶ hardly any effective step was taken in that direction till the outbreak of the Second World War. It was repeatedly said that education, particularly at the lower levels, should be improved and made less stereotyped and examination-dominated, but in fact quantitative expansion always received greater encouragement than qualitative improvement.

The responsibility for this state of affairs can be laid at the doors both of the policy makers and our people. Undoubtedly, the alien administration was not genuinely interested either in the spread of literacy among the masses or in the growth of that sort of intelligentsia, which is the product of the best type of higher education. Nor could they be expected to be sincerely interested in the spread of technological education and industrialisation in India. Still, either because of their sense of decorum or to use it as an eye-wash, they usually advocated a policy that appeared both rational and beneficial. But, in practice, that did not work, and that was due primarily to the interests of our elite and the traditions and peculiarities of the Indian situation.

It may be noted that though demands for the spread of primary education used to be made from time to time, the vocal and the effective sections of the Indian population, the English-educated middle-class, were really interested in secondary and higher education. They were fairly well off and could send their wards to schools and colleges, and wanted such educational opportunities which would assure their sons the types of jobs they aspired for. Naturally, where the question was about local co-operation for grants-in-aid institutions primary schools were left relatively uncared for. Even the government, possibly, could not implement their policy pronouncements against the obvious interests and desire of those who constituted their tools of administration and the only organised public opinion as it then existed. Again, it was the attitude of this English-educated middle class that largely explains the unpopularity of the technical course at the school level. English education at first spread and, till the early years of this century (and in parts of our country even today), was largely confined to the so-called upper castes, who were traditionally engaged in teaching and administration, and still preferred to be engaged in those professions. Besides, social convention has endowed these professions with greater respectability, and few only among the English-

educated could look with equanimity at the prospect of his son being not in any of the traditionally respected professions. Even those traditionally engaged in business and crafts wanted (especially in eastern India) their sons to seek higher education and to take up the professions of the upper castes. No wonder that with such built-in marks of inferiority technical education, particularly at the school level, lost the race to literary education, which, it was believed, equipped youngmen to be officers and professors. The same reason which prevented the diversion of adequate number of students to non-literary courses also diverted many of them from vernacular schools, *tols* and *maqtabs* to English-teaching schools. That is why despite all the good words said about teaching through mother-tongue, English retained the field as the medium of instruction for too long a period. The social elite, in fact, wanted and still want sons to be proficient in English, especially spoken, and that is why the last ten years saw the establishment of more convent-type of English schools in India than any decade during the British rule. And since, a university degree or even a smattering of English used to ensure, at least till the early years of this century, a job under the government boys flocked to colleges, irrespective of their interests and abilities, and large numbers of colleges were established without the necessary care being taken for the maintenance or, far less, the improvement of their standards.

It appears, in fact, that evolution of education in modern India was largely dictated by circumstances and the interests of the educated class, and that the latter's support for reform was little more than lip-service. The existing system appeared to suit best the interests and aspirations of those who mattered most.

ATTITUDE OF AND ATTEMPTS BY THE INDIAN NATIONALISTS

Some of our political leaders and social thinkers, however, could not view with complacence an educational system, which in their opinion only produced large numbers of imperfectly educated, denationalised, cramming robots, most of whom could neither earn an independent living nor do any good to their countrymen.

The first to raise his voice for some sort of a national education was Lajpat Rai. Since 1883, he was constantly advocating that the educational system should be made more modern, national and utilitarian, that the study of modern languages, Indian and foreign, and of science and technology should have precedence over that of classics and too literary a course. At the same time he emphasised, literacy should be spread at a faster rate and efforts be made to produce in the near future sufficient number of skilled workers.³⁷

But the main urge behind the demands for 'national education', at least till the beginning of the 20th century, was the need for nationalism. Our

leaders felt that Indians by training and temperament lack that strong sense of nationalism, that characterises the modern nations of the West, and education should aim at creating such a national feeling. In the words of Lajpat Rai "No scheme of national education in India could be complete without including the active teaching of 'patriotism' and 'nationalism' as a regular subject of study. In this matter we should borrow a leaf out of the book of Europe. Every European country, and the United States also, makes it a point to cultivate the spirit of patriotism and nationalism through its schools".³⁸ He even quoted from Jonathon French's *Patriots in the Making* and from a French book, *La Patrie* to suggest how the spirit of patriotism could be permeated through education, and says that education should aim at making youngmen love their country and countrymen as a whole, forgetting their regional and sectarian differences.³⁹

Annie Besant too, since 1896, began urging the Indian people that the education that was given to their sons was denationalising and despiritualising. She believed that, "Nothing can more swiftly emasculate national life, nothing can surely weaken national character than allowing the education of the young to be controlled by foreign influences, to be dominated by foreign ideals. . . . It must be controlled by Indians, shaped by Indians, carried on by Indians. . . . National education must live in an atmosphere of proud and glorious patriotism. . . . National education must meet the national temperament at every point and develop the national character".⁴⁰

It was really felt by many that the Indian education was somewhat out of touch with actual life. Writing in 1910, even a virulent imperialist like Valentine Chirol admitted that, "The fundamental weakness of our Indian educational system is that the average Indian student cannot bring his education into any direct relation with the world in which, outside the class or lecture room, he continues to live".⁴¹

The demand to have a system of education, better suited to our daily lives and social requirements and aiming at the growth of national consciousness, led to the establishment of some of our earliest national institutions, e.g. the D. A. V. College at Lahore, the Gurukul near Hardwar, the Central Hindu School at Varanasi and the Bramhacharyasrama at Santiniketan. Fundamentally, these institutions were expressions of protest against the prevailing pattern of education and, as with all protests not jointly planned or properly co-ordinated, they represented a wide spectrum of national opinion. In fact, the views of Tagore, Besant and the Arya Samaji leaders on English education and national education were widely different. While to Tagore the first ideal of education was the creation of a full man with creative powers, capable of enjoying all that is good around us, to Besant and the Arya Samajis, of course with minor variations, the ideal was to build a young India (obviously Hindu) hardy, self-reliant, and conscious and proud of their past

heritage and national potentialities. As a result, the institutions that grew up under the latter's influence bore obvious marks of Hindu revivalism, and even Lajpat Rai had to admit that much of our national education movement, at least in their early years, was denominational in character.⁴²

In India, unfortunately, almost everything national had obvious elements of conservative reaction in it. It was because, as a people, we are too emotionally involved in and, in a sense, too proud of our religion and culture, and we react more seriously to anything that appears to affect those than to anything, purely political or economic. That is why, a substantial section of our social elite had always felt the need of reviving our ancient wisdom and strengthening our traditional values and social ties. Such socio-cultural reassertion, with all the good and evil it contained, formed an integral part of Indian nationalism and preceded corresponding reassertions on the political plane.

But, the spirit of Hindu revivalism that permeated many of our early experiments with 'national education' had its counter-part among Indian Muslims in Sir Syed's M. A. O. College at Aligarh and Maulana Muhammad Qasim's Dar al-u'lum at Deoband.⁴³ To their founders and patrons it appeared that Indian Muslims should be made conscious of their Islamic heritage and common interests. Of course, the ideals—and approach of Sir Syed and Qasim differed widely.

Among these first few national schools and colleges, the D. A. V. College at Lahore, the M. A. O. College at Aligarh and the Central Hindu School at Varanasi were almost from the beginning affiliated to the regional universities, and therefore, despite their emphasis on Indian languages and tradition, and in case of the former, on technical education, their scope of experimenting with new ideas was severely limited. Even English, in most cases, continued as the medium of instruction. But far different were the dissident Gurukuls founded at Hardwar and Jawalapur. The aims and objects of the former were, 'To revive the ancient institution of Bramhacharya, of rejuvenating and resuscitating ancient Indian philosophy and literature, conducting researches into antiquities of India, of building upon Hindu literature incorporating into itself all that is best and assimilable in occidental thought, of producing preachers of Vedic religion and good citizens, possessed of a culture composed of the loftiest elements of two civilisations, which have made their home in this land'. The Gurukul at Hardwar used to admit students usually at the age of eight and paid more attention to moulding their character and outlook than to pure intellectual attainment. Here, however, modern subjects like economics and politics too used to be taught along with Sanskrit and the teachings of Dayananda. But Pt. Ganga Datta resented the teaching of these western disciplines, dissociated himself from his colleagues and founded the Gurukul Mahavidyalaya at Jawalapur. At both the Gurukuls the medium of instruc-

tion was Hindi, and none of these ever sought affiliation to any university or government help in any form.

Tagore's school and later the college at Santiniketan also used Bengali as the medium of instruction. Here too, the aim was to revive India's lost arts, to rediscover her cultural heritage, and to bring the education of students nearer to life and nature. Though at first the government viewed it with displeasure, its attitude changed with the visit of the Governor of Bengal, in March 1915. It, however, flourished not so much as a school for nationalists but as a centre for experiments with a new type of education. Still, an unpleasant compromise had to be made, and in the last four years at school students were taught in the light of the Calcutta University syllabus so that its students might take the Matriculation examination as private students.

However, it was the partition of Bengal, in 1905, that gave 'national education' the shape and force of a powerful popular movement. It was, infact, the expression of the Swadeshi-Boycott Movement in the field of education, and a few institutions were opened in Bengal, by the end of 1905, to provide what they believed to be 'national education', without any interference from the government. The growing demand for education on national lines under national control gradually found shape in the National Council of Education, established on 11 March 1906. It was to be the central body assisting and co-ordinating the work of the different national schools and colleges. But, some people including the well-known philanthropist lawyer, Sir T. N. Palit, were opposed to the teaching of the literary, scientific and technical courses at the same time, and sought to emphasize only the last one. So, to our disgrace, a rival body named the Society for the Promotion of Technical Education was registered, on 1 June 1906, the very day the N. C. E. also was registered. But, since Rash Behari Ghose was the President of both the societies, and many others were in the managing committees of both of them, there slowly grew up a close co-operation between the two, till the S. P. T. E. voluntarily merged itself with the N. C. E. in 1910. Till then, these two societies functioned directly through the former's Bengal Technical Institute, founded on 25 July, and the latter's Bengal National School and College, founded on 14 August 1906. Besides the latter institution, the N. C. E., by the end of 1907 had 15 institutions throughout Bengal affiliated to it, and a dozen more within and outside Bengal, even as far as Lahore, Poona and Masulipatam, more or less, followed its syllabus. Within a couple of years of its foundation, Bengal National School and College had nearly 500 boys on its roll, and nearly 4000 more were having their instruction in various other national educational institutions.

While the Bengal Technical Institute gave training in various trade and technology, mainly with a view to equip the boys for an independent livelihood the N. C. E. pursued a more broad-based and comprehensive prog-

ramm. "Its scheme of studies was to be imparted in three stages: Primary (including a three years' course commencing from the 6th year of the student), Secondary (including a seven years' course commencing from the 9th year) and Collegiate (including a four years' course commencing from the 16th year). In the Primary Stage, literary and scientific education was to be given in combination with rudimentary technical education imparted by object-lessons and the kindergarten system... In the Secondary Stage also, literary and scientific education was to go hand in hand with 'such branches of Technical Education as may be necessary to prepare the student for his intended career in life'. In this stage, workshop practice was introduced... At the end of the Fifth year, the student might take up either the Secondary Literary Course or the Secondary Scientific Course or the Secondary Technical Course... The School Department of the N. C. E. came upto the Seventh Year Stage or the F. A. or Intermediate Standard of the Indian Universities... After the completion of the Seventh Year of the Secondary Stage commenced the Collegiate or the Proficiency Stage as it was called. Specialisation of study was the rule at this stage and... There were provisions for further selections even within these selected groups". The medium of instruction was everywhere the mother-tongue, and considerable emphasis was laid on the study of the history and culture not only of India but of Asia as a whole and the biographies of famous freedom-fighters of the world. Questions used to be so set as to discourage cramming and to encourage wide and intelligent reading. Extension lectures by reputed scholars used to be arranged periodically.⁴⁴

Still, the 'national education' movement, which had for a few years become so powerful a force, began losing popularity after 1910, and 'by 1916-17 not a student cared to come for a literary and scientific education on national lines'. It was because the country was not yet really ready for 'national education'. People had taken to it with excitement as to the Swadeshi-boycott movement, but 'as soon as the first flushes of enthusiasm for political struggle subsided, there was a corresponding flagging of the emotional urge for national education'. National educational could not, obviously, assure the boys jobs under the Government or European merchants, on which the Indian middle class, particularly in Bengal, depended, and 'The insecurity of the future for the students of the national schools coupled with the unprovoked oppression of the police, gradually induced our students to fall out of the scheme of national education and quietly, and clandestinely almost, go back to the government services or service in merchant offices'.⁴⁵ Since, national education lacked an assured market-value the public attitude towards the students of national institution was often of contemptuous neglect. As Dr. S. C. Roy records: "They would not recognise them as educated and sometimes would even deny them the privileges of educated men... This funda-

mentally prejudiced psychological atmosphere was what we found it so difficult to fight".⁴⁶ Besides, the entire movement was based, more or less, on public charity, and as such financial stringency was bound to occur soon. Emphasising this point, Satish Mukherjee wrote in the *Dawn Magazine*, in August 1909, "what is needed is not the discovery of a new scheme of syllabus—but to find out more funds for giving effect to the N. C. E's three-dimensional scheme of education in a more substantial manner than that has been found possible by the Council". Thus came to grief what, even Lajpat Rai admitted, was the only 'truly national' attempt at educating our countrymen on national lines.⁴⁷

The older national institutions like the D. A. V. College, the Gurukuls, Santiniketan and the Central Hindu School, which in 1916 merged with the B.H.U., (I do not any more count Dar al-u'lum at Deoband and M.A.O. College at Aligarh among national institutions because of the former's almost exclusive concern with Islamic theology and the latter's alignment with alien rulers) continued to flourish. But, the very concept and aims of 'national education', as Kakasahib Kalelkar admits, were in the meantime undergoing a change. While formerly, it was largely believed that national education was for producing nationalists, many gradually began to feel that it should aim at fighting unemployment, creating self-reliant men, and in bridging the gulf between the classes and the masses.⁴⁸ These, it was believed, would strengthen the basis of nationalism. This new outlook drew its inspiration mainly from Gandhi-ji, and it was on the wake of the Non-Cooperation Movement that many national schools and colleges of the new type came into existence, in 1920 and 1921.

The best known among them were the Jamia Millia, the Gujarat Vidya-pith, the Kasi Vidyapith and the Bihar Vidyapith. The first two were founded in 1920, and the others in the following year. The local language, Urdu, Gujarati or Hindi, as the case may be, was used as the medium of instruction. Education in almost all of them was craft-based, with pronounced emphasis on community living, manual work and social service. Jamia Millia, among them, could provide the students with proper facilities for higher studies even in science and technology. The above-mentioned institutions were not affiliated to any university and framed their syllabus according to their own ideas, and the academic distinctions conferred by them also received general recognition. Visva-Bharati, however, despite Tagore's abhorrence for degree-hunting and an examination-dominated system, had soon to seek shelter beneath the wings of the Calcutta University, especially after 1926.

But, the inter-war years did not indicate that 'national education' was in any sense becoming more popular. Gandhi-ji's ideas on education were given shape in 1937 in the form of the Wardha Report, which was accepted by the Congress at its Haripura session, the following year. But neither during the short period of Congress rule in 1937-39, nor later has the scheme

of basic education made the expected progress or gained enough social respectability.

The failure of the so-called 'national education' to be really national can be attributed mainly to three causes: (1) Our leaders while emphasizing the study of crafts and technology forgot that for the Indian middle classes English education was really a vocational one, and that their entire attitude to education, from the beginning, was job-oriented. So, they would take to basic education only if it assured better prospects for attractive jobs. (2) Secondly, it used to be taken for granted and suggested that our literary education lay at the root of our economic stagnation and growing incidence of unemployment, and that better vocational education would eradicate these evils. But that was not always the fact, and the lack of suitable opportunities often damped the spirit of those, who were really interested in trade and technology. (3) Lastly, there was hardly any unanimity among our national leaders as to what really constituted 'national education', and what sort of education, tradition-based or western-oriented, their countrymen needed.

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B. N. DASGUPTA

Trends of Change in the Educational Structure and Pattern

THE earliest form of educational unit in India which was purely indigenous in growth was a "Tol" for Hindus and a "Madrasah" for Mohamedans. In later years of eighteenth century, primary schools intended for teaching English along with other useful subjects like arithmetic etc. came to be established by the East India Company for all where Brahmins, non-Brahmins and Mohamedans could read. Thus while Tols and Madrasahs were going on in their own way, primary schools of the new type began to spring up. Tols were confined largely to Brahmins and the rigid caste system did not allow lower caste Hindus to participate in the *yagna, homa* and allied *śāstric* performances and rituals. This was the order of the then society and except on rare occasions, the denial of Vedic education and ceremonials to the lower castes was not felt to be objectionable. Tol education was a highly respectable occupation and the Tol system was something unique from today's point of view because the relationship was wholly personal between the Guru and his pupil, and this tutelage or schooling was wholetime and continuous for a length of time. That was the prevalent system at that time since the number of persons interested in such education was not very large. Yet at the time of the Sepoy Mutiny, the number of Tols and Madrasahs in the country was about 48,000 with enrolment of about 8 lakh pupils. In the meantime, in 1817, i.e. forty years before the Sepoy Mutiny, Raja Rammohan Roy founded the Hindu College in Calcutta to impart English education together with Vernacular and other useful subjects. The Court of Directors founded in Calcutta in the year 1820, the famous Sanskrit College of Calcutta in spite of opposition of Raja Rammohan Roy who did not like

any more orthodox type of institutions like a Sanskrit College.

With the impact of English education on the Indian society, the pattern of elementary education began to change. In this connection I must quote a few lines from Macaulay which have removed my deep-rooted misconception.

Round about 1835, the controversy came to a high pitch between the protagonists of Persian, Sanskrit and Arabic on one side and English on the other. Macaulay in the famous Note wrote :

“... We ought to employ them in teaching what is best worth knowing, that English is better worth knowing than Sanskrit or Arabic ; that the natives are best desirous to be taught English and are not desirous to be taught Sanskrit or Arabic ; that neither as the language of law, nor as the languages of religion, have Sanskrit or Arabic any peculiar claim to our engagement ; that it is possible to make natives of this country thoroughly good English scholars, and that to this end our efforts ought to be directed... I feel with them that it is impossible for us with our limited means, to attempt to educate the body of the people. We must at present do our best to form a class who may be interpreters between us and the millions whom we govern, a class of persons, Indian in blood and colour but English in taste, in opinions, in morals and in intellect. To that class we may leave it to refine the vernacular dialects of the country, to enrich those dialects with terms of science borrowed from the western nomenclature, and to render them by degrees fit, vehicles for conveying knowledge to the great mass of the population”.

Sir Charles Trevelyan said :

“Our main object is to raise up a class of persons who will make the learning of Europe intelligible to the people of Asia in their own language”.

The Despatch of 1854 :

“The English language should be taught where there is a demand for it but such instructions should always be combined with a careful attention to the study of the vernacular language of the district. As the importance of the vernacular languages becomes more appreciated, the vernacular literatures of India will be gradually enriched by translations of European works or by the original compositions of men, whose minds have been imbued with the spirit of European advancement, so that European knowledge may gradually be placed in this manner within the reach of all classes of the people”.

These are bound to remove many misconceptions to a very large degree for the utterances have been indeed prophetic.

In 1855 East India Company gave up the idea of limiting it to a special class and established the Education Department for imparting elementary education to the common people. This marked the beginning of spread of elementary education. *This is a landmark of change* in the educational advance in India introduced by the aliens in the interest of education. It will be seen that the Macaulay's Minute does not make mention of making the Indians fit for clerkships only or of teaching English for carrying on administration. That quick absorption in employment became a great attraction and that knowledge of English would make one easily eligible for employment could be taken for granted. It can also be taken for granted that a large proportion of employment related to administration, which was, at that time, the greatest concern of the rulers.

This elementary education scheme was financially supported by private contributions. By the official Despatch of 1859, this private arrangement was abolished and local cesses were levied in the rural areas for the purpose of elementary education. It was a levy on land revenue in several places like Punjab, Bombay, Madras, Bihar, etc. but since permanent settlement would not allow any additional burden on land, no cess could be levied in Bengal, Assam, etc. The urban municipalities did not levy any cess but allotted some amounts for elementary education.

Much more important landmark of change, in the educational policy which marks a very bold and outstanding contribution of the Britishers to the spread of education among all peoples irrespective of caste, creed or denomination, came from the Britishers of the East India Company when school admission was thrown open to all including scheduled castes peoples. When educational facilities were being enjoyed by the upper classes of Hindus in the Government schools, the insistence for admission of a scheduled caste boy in Bombay Presidency created a historic case. A scheduled caste boy sought admission in a school and the Principal refused admission. He moved the higher authority, i.e. the Director of Public Instruction who refused admission and wrote "...that it would not be right for the sake of a single boy... at the possible risk of making the Institution practically useless to the great mass of the natives". Then the boy represented to the Government of India who also refused and said the Government acquiesced in the Director's views and informed the petitioner that he could not at present interfere in his behalf. "The Governor General in Council thinks it very probable that the Bombay Government have acted wisely in this matter, but he desires me to say that the boy would not have been refused admission to any Government school in the Presidency of Bengal". The boy took the matter to the Court of Directors in London and there he won the case by the following Despatch :

“The educational institutions of Government are intended by us to be open to all classes and we cannot depart from a principle which is essentially sound and the maintenance of which is of the first importance. It is not impossible that, in some cases, the enforcement of the principle may be followed by a withdrawal of a portion of the scholars but it is sufficient to remark that those persons who object to its practical enforcement will be at liberty to withhold their contribution and apply their funds to the formation of schools on a different basis”.

For the first time, the principle of social justice and fairness in administration was established. This trend of change gave a firm lead for all sections of people to be treated alike and to be educated together. Thus the educational pattern takes a distinct shape. The slow and faltering acceptance of this sound principle by the Indians showed the conservative mind of the upper class Hindus and this brought about sharp cleavage in the Indian society between the upper classes and the lower classes including scheduled castes who gradually and in distress accepted the faith of Islam or Christianity in big chunks of population and this new block of Islamic population now forms a formidable rival of India.

After the shake up of the Sepoy Mutiny in 1857, the East India Company took up seriously the question of education. They did not disturb the Indian system of education. Very soon the primary schools became very popular as will be evident from the fact that in 1881, the number of Tols and Madrasahs came down to 25,000 with enrolment of 3.5 lakhs and the number of primary schools mounted up to 83,000 with an enrolment of 20 lakhs. In a short time, the popular appeal for primary schools increased and the decline of the Tols and Madrasahs was so marked that in 1901 the number of Tols etc. dwindled to a nominal figure and new type primary schools came upto 1 lakh with enrolment of 30 lakhs. Thus the intimate relationship between the Guru and the pupil began to disappear and the teaching in the primary schools took a formal, concrete and methodical shape under rules to guide both students and teachers. The impact of English education was severe and *pattern of education changed* entirely beyond recognition.

The first Education Commission set up in 1881 gave great stress on development of elementary education. This commission recommended the transfer of responsibility to the hands of the local bodies, district boards, or Councils in rural areas and Municipalities in the urban areas. As early as that, for the first time, Britishers raised the question of compulsory education but it was thought impracticable. Thirty years later in 1911, Gokhale raised the question again. Although compulsory elementary education was not accepted by the then government, still, the intention of the British to the extent as represented by Macaulay was not only clear from his speech in the

House of Commons but the ideas expressed were elevating :

“Are we to keep the people of India ignorant in order that we may keep them submissive ? Or do we think that we can give knowledge without awakening ambition ? Or do we mean to awaken ambition and to provide it with no legitimate vent ?”

Indeed it was a laudable conception expressed as early as 130 years ago.

So far as the progress of elementary education is concerned, rapid expansion of free elementary education is going on at the present time, after independence, for all children in the age group 6-14 years, still it will take quite a substantial time to reach universal enrolment ; it is expected that the present fourth plan will achieve it for the age group 6-11. For the age group 11-14 years, two more plan-periods, i.e., 10 years more would be required.

In 1944 British Government set up a plan for post-war educational development and according to it, 40 years would be required for compulsory education of all children, i.e., it would be achieved by 1984. During the actual execution of the plans leading to the objective, it seems the aim would not be fulfilled before 1981. It would be recalled in this connection that the Kher Committee recommended that the objective should be reached within 16 years, i.e., by 1960. The Indian Constitution directed that this objective should be reached in 10 years. So it is far from fulfilment. The rapid growth of these primary schools has been accompanied by some changes in their courses but essentially their pattern remains the same except that instructions are carried out through regional language and with greater stress on national bias.

BASIC EDUCATION

About fifty years ago, the first man who realised the full significance of secondary education was Rabindranath Tagore. He made Sriniketan with the help of Elmhirst and he made great efforts to the building up of a new type of secondary education required to meet Indian needs and yet keeping an eye to general education and culture. It was he who first saw the greatest need to inculcate in the young boys the habit of being engaged to creative activities of different types. He wanted the young students under his care to be in constant association with nature. He held voluntary classes under a tree so that the free air in a natural environment could encourage a free mind and free expression of creative urge whether in painting, leather work, sculpture, music, agriculture, carpentry, clay modelling, spinning, etc. As a matter of fact the poet's Santiniketan and Sriniketan are the two places which gave the first ideas of improved secondary education and the whole of India took new ideas from there. Gandhi-ji might have got inspiration from here

and India-wide agitation for basic education was started.

Regarding this basic education which is a modification of Tagore's ideas but otherwise a new conception of Mahatma Gandhi and which marks a sharp deviation from the existing mode of English education, it is best to start with the formulator's own idea in his inimitable language :

“By education, I mean an all round drawing out of the best in child and man—body, mind and spirit. Literacy is not the end of education, not even the beginning. It is only one of the means whereby men and women can be educated. Literacy in itself is no education. I therefore begin the child's education by teaching it a useful handicraft. I hold that the highest development of the mind and soul is possible under such a system of education. Only handicrafts have to be taught, not merely mechanically as they are taught today, but scientifically, i.e., the child should know the why and wherefore of every process”.

“My plan to impart education through the medium of village handicrafts, like spinning, carding etc. is thus conceived as the spearhead of a silent social revolution fraught with the most far-reaching consequences. It will provide a healthy and moral basis of relationship between the city and the villages and thus go a long way towards eradicating some of the worst evils of the present social insecurity and poisoned relationship between the classes. It will mean a new educational technique where progressive self-reliance in all aspects of a healthy and balanced life—economic, physical, social, moral and cultural—forms the medium of instruction and the necessary knowledge of subject matter is given, habits and attitudes formed and developed through this process”.

Gandhi-ji said :

“.....if carpentry is taught to me by one who has had a scientific training in carpentry, he will stimulate my intellect too. Not only shall I then have become an expert carpenter but also an engineer..... Manual training should thus be given side by side with intellectual training. In basic education, the principal means of stimulating the intellect should be manual training”.

It is, no doubt, a revolution in thinking and the concept of basic education would have been a powerful force in the intellectual reconstruction of Indian youth had the sage of Sabarmati got an inspired disciple like Vivekananda whose intellect and mighty driving force gave flesh and blood to the teachings of Ramkrishna.

Even after Gandhi-ji's death, good progress was maintained for sometime

but soon the movement lost its vigour and it degenerated into mechanical craftsmanship of a very dull nature. Even during the third plan, efforts were made to convert about 60,000 schools into basic schools. All efforts were made also to establish basic schools in urban areas and also to introduce the principles of basic education into other schools. All these are confined to rural areas and hence the *expected change of trend in educational stream could not* make any lasting impression, far less could it give any new direction to educational development in the lower strata.

SECONDARY EDUCATION

The secondary education, in the scheme of education in any country, should have a unique importance and purposeful role to play. This education assumes seriousness and demands closest attention as this is the most crucial period in a man's educational career.

In India it has passed through a chequered history. In spite of many changes and improvements, its structure has remained the weakest link between the primary and university education.

Mudaliar Commission (1952) recommended the following structure :

Four/five years of primary or junior basic education.

A middle or junior secondary or senior basic stage of three years.

A higher secondary stage covering a period of four years.

A three-year course at the University for the first degree.

This structure is noteworthy because one year has been added to higher secondary thus making it four years course and one year has been added to University education and thereby the Intermediate course of 2 years has been completely abolished.

The Mudaliar Commission recommended the establishment of multi-purpose schools. Here is the diversification to different walks of life.

The Central Advisory Board in 1953 took into consideration the Radhakrishnan Commission Report and Mudaliar Report and recommended an Eleven-Year Higher Secondary Course.

The conference of Vice-Chancellors and the Boards of Secondary Education in 1955 decided that there should be Higher Secondary course up to the age of 17 years to be followed by three-year degree course.

The Central Advisory Board in 1956 accepted the resolution of the Ministry of Education that the Secondary School course should be upto the age of 17 years. This computation may have been on the basis of a boy starting at the age of 6 years plus 4 years primary plus 3 years junior secondary plus 4 years higher secondary—making altogether 17 years and

making higher secondary course one of eleven years. So long this was the structure. According to Kothari Commission (1964) the new educational structure is as follows :

One to three years of pre-school education.

A primary stage of 7 to 8 years.

A lower secondary stage of 3 or 2 years of general education and 1 to 3 years of vocational education.

A higher secondary stage of 2 years of general education or 1 to 3 years of vocational education.

A higher education stage having a course of 3 years or more for the first degree and followed by course of varying duration for the second or research degree.

The age of admission to class 1 should ordinarily be not less than 6 years.

The difference between these structural suggestions is not much and I think a few minor adjustments may be made as a result of the recommendations of the Kothari Commission. By and large, the structure remains the same. But the *pattern of education might have changed* substantially if what was in the mind of the authors of the Radhakrishnan Report had come to fruition. Among other thing it was very much in the minds of the authors that a close association between the students and teachers over a continuous period of three years in the same residential university would bring about a large improvement in their mental outlook, and loyalty to the institution, culminating in all-round discipline. The result has lamentably gone the other way. It may, however, be pointed out that this high hope was not justified as the Commission saw before it the affiliating universities where colleges imparted continuous teaching for 4 years—2 years for Intermediate and 2 years for Graduate—course. To the introduction of 3-year degree course, there was a strong opposition from the public on many grounds. Some of the difficulties appeared prominently while executing this scheme, viz. unsatisfactory distribution of papers between the 3 years, the holding of university examinations and also the difficulties of combining the results of examination of different years, etc. The change-over was made which brought about innumerable troubles to all institutions, a sad disruption of the Intermediate course teachers and a huge expenditure by way of subventions to all institutions and universities. This money might have been much more profitably spent on effectively reducing the size of a college, on better equipping primary and secondary institutions and on producing more teachers for primary and secondary institutions. Changes entailing large expenditure and not guaranteeing a distinct improvement in quality should have been avoided.

All that was necessary was diversification of studies which the Mudaliar

Commission strongly advocated and on which any amount of money spent would be fully justified. This diversification, to whatever extent achieved, *has considerably changed the pattern of education in India.*

The technological studies have spread well as a result of large amounts of additional facilities for training. All levels of technological training have been made available and this expansion has been quite substantial. This marks a change in the pattern. What remains to be done by government is to create conditions in the engineering and technological fields so that absorption of the products is continuous. This requires sympathetic tackling of the existing industries, government cooperation, and a panel of supervisors to remove handicaps in the way of employers and employees.

In recent times, another very substantial gain is the diversion of a large number of youths to Commerce courses from the main stream of Arts and Science courses. These graduates have filled a large space in the business houses and it will be seen that they are creating larger occupational possibilities for the near future.

Those who shoot off to professional courses of Chartered Accountancy, Cost Accountancy etc. are making a distinct contribution to India's business life and giving a financial direction. Thus it will be seen that the *educational pattern is changing with new occupational changes.*

It is just the occasion when I should frankly say that the purpose of secondary education has all along being misunderstood and that for some historical reasons. When English education became an easy passport to employment, the secondary education assumed special importance as the link with graduation course, since it almost immediately assured an employment either in the Commissariat or in a merchant office. It was then completely forgotten, or it was never understood by the government and the people that secondary education has a much more important role to play as being not only a link but a terminal point of education too for certain purposes. Its main purpose is to give such general training that it can fit in with the various requirements of business, industry, agriculture or any other vocation or profession including medicine. For a long time, in the past, diversification did not appear to be important and the result has been that secondary education has so far developed ignoring altogether the requirements of economic development of the country. During only the last decade, diversification has made some progress and *thus a distinctly healthy trend was visible.*

UNIVERSITY EDUCATION

Since the earliest Commission beginning with the Education Commission of 1881, there have been several important landmarks in the educational development like :

The Indian Universities Commission 1902,
The Indian Universities Act 1904 (Curzonian Act),
Gokhale's Elementary Education Bill 1911,
Government Resolution on Educational Policy 1913,
The Calcutta University Commission on 1916-19 (Secondary and University Education),
Inter University Board 1924 established,
Sargeant Report 1944,
Central Advisory Board of Education (all stages of education),
All India Council for Technical Education 1946,
University Education Commission 1948 (Radhakrishnan Commission),
The Secondary Educational Commission 1952 (Mudaliar Commission),
Establishment of University Grants Commission 1953 (Act came into force in 1956),
Report on Reorganisation of Commerce Education Committee (Rao Committee),
Report on the Education Commission 1966 (Kothari Commission).

All these Commissions have made their useful contributions and the recommendations which were thought to be important for educational growth were accepted. The Calcutta University Commission gave a lead to India during the twenties of the century. Long before this, the great educationist Sir Ashutosh made the Calcutta University the pioneer and a centre of learning and research. Under his inspiration both in Arts and as well as in Science, great scholars rose to eminence and made their unique contributions. That thrust for higher education has spread all over India and there have grown up many centres of high research in the country today.

We shall now see the educational institutions as they are before us. The times are so abnormal due to political turmoil, economic deficiencies and changing values that every situation seems beyond control, that even educational convulsions which have so severely affected the teaching organisations, do not lend themselves to any clear analysis so that the real nature of the recent changes is hard to recognise. Any change discernible may be due to a number of extraneous factors and may not be due to any change of educational policy. The school and college-going population in the country has so increased and the number of institutions has so poorly kept pace with their requirements that neither there is accommodation in the buildings and class rooms and laboratories nor is there adequate number of experienced and well equipped teachers. This can be a contributory cause of students' indiscipline though much bigger issues are involved. During the last five decades, the Indian society has put education in the forefront of all activities, and as a result, students in large numbers are passing out of the portals of the College and the University but

the opportunities for employment have been lamentably lagging behind. As if this is not enough to contribute to indiscipline, the national call of 1933 to boycott administration including educational institutions came as the severest blow to discipline. This is one instance which will prove that once frivolity corrupts the youth, complete disintegration becomes inevitable. Once rationality and restraint are gone, indiscipline is accelerated by its own force. Open defiance has become so common and the student organisation, strong by inherent advantages, has become so active that public opinion cannot assert itself either through the guardians or through the press. On top of all this, the teacher's role has not been a very negligible factor. Teachers' procession throwing all decency and dignity to the winds, is a positive factor causing this indiscipline. The behaviour of some legislators in the Assembly or Sabha chambers is in no way less responsible. If the senior section of the people in the country shows such indiscipline, it ill-suits them to criticise the youngsters. Besides, today young boys and girls in this vast metropolis do not find schools to join, playgrounds to play; young college students do not find satisfactory arrangements to sit or study in the college and also for games and sports; teachers do not get facilities for work and well equipped library at all hours of the day and it is no wonder that discipline is at a very low level. Besides all this, students have joined politics—what is depressing is that the students without reading the classics have descended to actual political manoeuvrings in the universities and have formed as many political groups as are outside the universities. What ought to have remained academic has become a tool for power politics and all these are sufficient to create confusion and indiscipline. The confusion is so great that the educational edifice has broken down and now the educational pattern can hardly be seen to exist. Still the crisis is not of education itself—the crisis is the crisis of educational administration, imagination and foresight. The politicians are busy in controversies of boundary, language, labour and industry. The administration's first and foremost business was to provide for the children, the youths and the grown-ups of the country—their educational activities were to have been entrusted to the educationists. In their absence, the educational edifice gives a dismal look and if the pattern has remained unaffected in its structure, its vitality is being sapped.

In the midst of tumult, the university's educational courses are extending to vocational and professional courses. The Report of University Grants Commission supporting this line of extensions writes :

“This aspect has particularly to be stressed in a developing society like ours. Knowledge must have some practical uses and interpreted in a broad sense, the pursuit of knowledge and acquisition of skills must go together....The American Universities combined the aims of liberal

education with a concern for training for different professions and vocations appropriate to a nation passing through a period of transition and development. Even in England with the rapid industrialisation of the country and the general acceptance of the idea of the welfare state, the Universities realised the necessity to offer facilities for many kinds of professional education”.

This trend of change of educational pattern indicated that the Universities are reacting realistically and yet it is necessary to sound a caution in words of Lord Robbins :

“While emphasising that there is no betrayal of values when institutions of higher education teach what will be of some practical use, we trust postulate that what is taught should be taught in such a way as to promote the general powers of the mind. The aim should be to produce not mere specialists but rather cultivated men and women. And it is the distinguishing characteristics of a healthy higher education that even where it is concerned with practical techniques, it imparts them on a plane of generality that makes possible their application to many problems—to find the one in the many, the general characteristics in the collection of particulars. It is this that the world of affairs demands of world of learning. And it is this, and not conformity with traditional categories that furnishes the criterion of what institutions of higher education may properly teach”.

This logical view was not acceptable in the learned circles in the thirties of this century—particularly by the purists of Oxford and Cambridge Universities. Great satisfaction is now being felt when these arguments, advanced then, have come from the powerful pen of Robbins.

While the scope of the university is thus expanding the question that agitates an educationist in India is whether the standard is suffering. At this critical time, a fresh problem has arisen in India. If now English recedes to the background, how will the standard and quality of teaching be maintained. Is it difficult to realise that no nation can raise its level, once the level has gone down ? This is very much true of a big country like India. The next question is how India will keep its link with the Western World. It is plain that the international intellectual tempo is very high today and if cultivation of this language in the Indian colleges and universities gets a setback, the flow of knowledge cannot keep pace with world progress—what to speak of making good fifty years of late start. Our topic will not allow a discussion of language issue but it will suffice to say that no drastic change should be or can be made now.

The other changes at the level of higher education are by way of ramifications like Higher Technical education, Rural Higher School, Social education, Physical education, Cultural activities (Music, Dance, Painting, Sculpture, etc.), those at the postgraduate level are research in all branches of science in well-equipped laboratories under the Council of Scientific and Industrial Research—Atomic Energy Establishment, Agricultural Research and Medical Research. Special mention must be made of the Council of Scientific and Industrial Research and the Atomic Energy Commission which have been engaged in high standard researches and which have considerably raised the prestige of India before the world. In this respect, *the pattern has vastly changed* and yet one may hold the view that postgraduate research work as carried on in the university is being proliferated in a big scale in these laboratories—it is an addition of quantum *rather than change in pattern*. This being the case, it is felt that these laboratories should be attached to the different universities where the same kind of work is carried on. Here I am supported by the strong views of Dr. Shils, a noted American sociologist and an acute observer :

“There is however, another type of cleavage in the structure of the Indian intellectual system which is more injurious and about what something can and should be done. I refer here to relative isolation of the Universities from other sectors of the Indian scientific and technological institutional system. Whereas in the more advanced countries, the Universities are the major centres of researches and have a close connection with industrial research . . . This is injurious to the achievement of Indian research. The Universities by virtue of their training functions and their capacity to do fundamental research, should occupy a more central position in India. Until the position is rectified, the formation of an intellectual community will be hindered”.

It is a matter of great satisfaction that in respect of scientific research in the university and under the CSIR or under the Atomic Energy Commission, the ambitious and idealistic stand of Sir Ashutosh permeated throughout the country and Indian scientists have made their contributions and extended the horizon of knowledge.

The structure of education leading to the higher studies of research may have undergone some minor changes here and there in recognition of the needs of the educational problems of the State, still, specialised study, advanced study and research remain as one of the supreme objectives in India.

AUTONOMY OF EDUCATION

The requirements of libraries, laboratories and research equipments need

large financial resources. These can be best solved by non official academic bodies properly constituted in different States. There can be no justification for the unfortunate tendencies of the last two decades towards government control. It seems that the people in power in the educational line have forgotten that this is not the legacy of the independent and fearless stand of the twenties and the earlier the nation realises its responsibilities, the more honest we shall be to the next generation. It does not require much effort to understand that power politics play the predominant role with the politicians and they want to augment their powers by annexing the field of education too. Government control of education is a serious menace and it must be resisted by all thinking men of the country.

In the very nature of things, education at all stages should enjoy autonomy. Autonomy in administration must be preserved—more specially at the final stages where expenditure on education is enormously high. It is necessary that the university authorities and research authorities should have the liberty to manage the laboratories unhampered according to their requirements. It is at the same time their responsibility to the nation that they must rise to the trust and confidence reposed in them.

The London Economist's comments have been quoted by the well-known educationist, A. L. Mudaliar :

“Independence is vital to the Universities. Make them answerable to bureaucracy for every penny of governmental grant and originality and creative thought will be endangered. It is far better that the tax payer should lose one or two million pounds by inefficiency than waste far more through misplaced curiosity”.

The first observation is more than true but the second fear is less than true because the university men are, by nature, economical and the question of inefficiency is also not applicable. I am not objecting to some external checks but in the matter of education and research, the educationist should be made wholly independent—only then he can be held responsible for the employment of best talents for most responsible work. About 60 years ago Gokhale wanted autonomy of education and strongly advocated withdrawal of government interference. To India's regret he did not succeed with the British government but today under India's own administration, autonomy seems to be in much greater jeopardy than in Curzon's time. In several States government control is dominant through Education Secretary, Finance Secretary, and other nominees. The sole duty of the nominees is to toe the Secretary's line whose main duty is to satisfy government. It so happens that in these new universities, the Education Secretary has not only a seat on “The University” (corresponding to Senate—the highest body) but also

on the Executive Council (corresponding to Syndicate) and what is absurd is that he is also the Secretary to the Chancellor. So in a businessman's language "The collusion is complete". He dominates the show—he succeeds in dominating because most of the members think it of no advantage to oppose him; if he misses anything or any meeting, he will win it as Chancellor's Secretary. He is the dispenser of all finance and then the dictator as Chancellor's Secretary; whenever the Vice-Chancellor has to be opposed, the Education Secretary will advance the plea that "it is State University and Government's will has to be carried out". The Education Secretary has the vaunted glory that he is the master of ten or twelve universities but will not confess that he has never spent a day in the inner chambers of library or laboratory. When matters become inconvenient he goes to the Chancellor who is ordinarily ignorant of anything of higher studies or problems of universities.

The earlier the constitutions of these new universities in India are carefully examined, the better it is. It will be a salutary provision if Governor is not *ex-officio* Chancellor. Education Secretary and Finance Secretary should not be on any Executive or Advisory bodies—they will act as Advisors to the Chancellor, to the Syndicate or Senate in matters of policy and finance in all matters of controversy. It is said that a teacher—Vice-Chancellor has no administrative ability and hence these safeguards. I remember to have read what Prime Minister Lord Atlee said :

"...Since the end of the war, the government of which I am a member has provided funds on a much greater scale than was ever done by any of its predecessors. Indeed these subventions now constitute a very great part of the revenue of the Universities. Nevertheless government has not sought to extend its control.....leaves the Universities about complete freedom to run their own affairs.....it is fundamental that Thought should be free and that the inquiring and critical University spirit should be brought to bear on all affairs. The University must ever seek for the truth, it must never be a mere instrument in the hands of a government, a Church, or any political or economic group".

Here is a very recent utterance about university autonomy but think of an Englishman, Chancellor of Bombay University, one hundred years ago, saying :

"I have a clear conviction that the political government of this country could hardly commit a greater mistake than by attempting to convert the University into a mere office or department of the State". (Vide A. L. Mudaliar's address.)

In the Report of the Royal Commission on the Universities of Oxford and Cambridge (1922), the Minister of Education in Great Britain said :

“No one appreciates more fully than myself the vital importance of preserving the liberty and autonomy of the Universities. The State is, in my opinion, not competent to direct the work of education and disinterested research which is carried on by Universities, and the responsibility for its conduct must rest solely with their Governing Bodies and Teachers. This is a principle which has always been observed in the distribution of the funds which Parliament has voted for subsidising University work ; and so long as I have any hand in shaping the national system of education, I intend to observe this principle”.

To preserve the freedom of the Calcutta University against Government’s prejudicial proposals, that selfless teacher of many scientists, Professor P. C. Ray spoke with the deepest emotion :

“.....A great crisis is looming large in the horizon of our national intellectual progress. We are threatened with a national disaster. So it behoves us to take concerted action and try our best to avert the calamity; we should gird up our loins and see that the noble heritage which has been granted to us is not bartered for a mess of pottage. I feel very strongly on this occasion. In the evening of my life I thought I might hand down to our successors the lamp which we have been able to light so very dimly, so that it might burn very brilliantly. The feeble light is about to be extinguished....”

In respect of independence of the University and its Vice-Chancellor, the famous letter of Sir Ashutosh to the Governor-Chancellor Lord Lytton declining the offer of Vice-Chancellorship of the Calcutta University may be quoted in its concluding lines :

“....It may not be impossible for you to secure the services of a subservient Vice-Chancellor, prepared always to carry out the mandates of your government, and to act as a spy on the Senate. He may enjoy the confidence of your government but he will not certainly enjoy the confidence of the Senate and the public of Bengal. We shall watch with interest the performances of a Vice-Chancellor of this type, creating a new tradition for the office....”

If the university’s autonomy can be zealously preserved, then the country’s higher education and research can be given a sound lead. Like-

wise, autonomy for secondary education and primary education too should be secured in order that the three levels of education can proceed in harmony. Then only the educational pattern is bound to reflect the aspirations of the country. It is a matter of the gravest misfortune that great educationists like Ashutosh Mukherjee, P. C. Ray, Gopalkrishna Gokhale, Madanmohan Malaviya, Shyamaprasad Mukherjee should have successors who instead of allowing complete autonomy to education are either silent or quietly annexing educational control for the government. Misfortune is still greater and the disgrace is complete that both students and teachers are running from Minister to Minister, from politician to politician to redress their grievances—grievances which are in many instances imaginary and that for objectives which are essentially unsound from academic point of view. Such are the events which cannot escape even a casual observer. It is time that we are, as a nation, awakened to this woeful plight although some lone voices of fearless educationists like Mudaliar can still be heard. It is time that academic circles took the initiative of a quick return to a healthy state of situation where all academic matters come to be solved by the academicians themselves. Let the government and different parties take it as a national call to cooperate in giving the right direction to the autonomy of education.

Students, teachers, members of the university should always remember that the highest organisation in the country is university. If the healthy pattern of education suffers in any way, the nation will go down. Let us elevate ourselves by remembering the true pattern and objective in the impassioned recital of Cardinal Newman :

“A University is a place of concourse, whither students come from every quarter for every kind of knowledge. It is the place to which a thousand schools make contributions; in which the intellect may safely range and speculate, sure to find its equal in some antagonist activity and to judge in the tribunal of truth. It is a place where inquiry is pushed forward and discoveries verified and perfected and rashness rendered innocuous and error exposed by the collision of mind with mind and knowledge with knowledge. It is the place where professor becomes eloquent and is a missionary and a preacher, displaying his science in its most complete and most winning form, pouring it forth with the seal of enthusiasm and lighting up his own love of it in the breasts of his hearers. It is a place which wins the admiration of the young by its celebrity, kindles the affections of the middle aged by its beauty, and rivets the fidelity of the old by its associations. It is a seat of wisdom, a light of the world, a minister of the faith, alma mater of the rising generation”.

Indeed, this is more than a pattern—it is the philosophy of education in a perfect pattern.

Pattern of Change
in Occupation Distribution

ASIT KUMAR BHATTACHARYYA

Regional Economy of West Bengal

THE State of West Bengal came into being in August 1947 with only 37.46 percent of the area of former Bengal presidency. Cooch Behar (area 1318 sq. m), a feudatory state in pre-independence India was merged into the state in January 1950. The tiny French settlement of Chandernagore (3.73 sq. m.) was transferred to India and merged in West Bengal on October 2, 1954. 3200 sq. miles were added to West Bengal in November, 1956 following the reorganization of States on a linguistic basis. The present area of West Bengal (1961 census) is 34194.1 sq. miles.

The Report of the Second Agricultural Labour Enquiry Commission (1956) mentions that nearly one-eighth (11.57 percent) of the land area of the State is under forests, about a sixth (14.99 percent) of the land area is not available for cultivation, 6.94 percent of the land area is uncultivated excluding fallow, another 6.64 percent is fallow land. The net sown area measures upto 58.78 percent of the land area. Net irrigated area is 23.46 percent of the total sown area. While cultivated area is 68.65 percent of the total area, the area sown more than once is 16.78 percent of the net sown area.

REGIONAL ECONOMY OF WEST BENGAL

The regional economy of West Bengal like that of any other Indian State can be studied from a number of view points. Under this study we can examine the degree of integration that the economy of the State has achieved with that of the rest of India—how far its products are sold in other States of India and how far it absorbs the products of other Indian States. We may study the contribution of West Bengal to the G. N. P. of India, its strategic

economic importance in terms of the relative concentration of Indian industry and finance within its borders, the total tonnage handled by its ports in relation to All-India's, or the ton-mileage of goods carried by railways within West Bengal compared to the ton-mileage in other States of India. We may in the same way study its share in the total exports and imports of India. We may also enquire into the state of its government finances, the per capita income and expenditure of the State government on nation building activities along with its general sources of revenue and expenditure. We can study the per capita consumption of certain key consumption articles like kerosene, cloth and sugar in the State and their variation over the years. With the help of these partial studies we may try to ascertain the place of the State's economy in the Indian economic fabric. Attempts such as these are made every five years by all State governments in their respective memoranda submitted to Finance Commissions (set up under constitutional dictate) to justify and substantiate their claims on central sources of revenue. Such attempts are therefore not without value and may deservingly engage the attention of economists in the State.

The present essay however is an attempt to examine the economic terrain of West Bengal as a whole, mainly through an analysis of the occupational pattern of the population in the State as given in the 1961 Census.

My aim has especially been to examine the state of employment and the progress of industrialization in West Bengal combined with the potential created for such progress in the State in the recent past. I have considered the following factors as indices to measure the extent/depth of employment and industrialization in particular and economic development in general.

1. The progress of urbanization in the State and its different areas.
2. Variations in the Working Population (W. P. in short) in relation to total population (T. P. in short).
3. The occupational pattern of the population in the different areas¹ of the State with special reference to the variations in the percentages of agriculturalists,² agricultural labourers, manufacturing workers, and workers in household industries and in trade and commerce.
4. The generation of industrial power especially electricity and its growth in the recent past. The distribution of electricity sales in the different areas of the State.
5. The progress and distribution of literacy in the State.

URBANIZATION IN WEST BENGAL

According to 1961 census, West Bengal has a total population of about 35 million (34,924,627). Of these, nearly 26.4 million (26,385,437) are rural, the rest a little more than 8.5 million people (8,540,842) being urban.

Urban population in the State thus forms only 25 percent of its total population. Every three out of four people in West Bengal still live in its 38,465 villages.

And yet there is a chink in the armour as the figures are presented above. Of the 8.5 million urban population in the State, fully 6.5 million live in Calcutta and its industrial suburbs now known as the Calcutta Metropolitan District or the C.M.D. In other words, 76 percent of the total urban population of the State is concentrated in the C.M.D. The position of West Bengal minus Calcutta Metropolitan District reveals that only 7 percent of the total population of the State is urbanized. This rate is comparable to that of East Pakistan (5.23%) and is less than that of the isolated hill State of Tripura (9.0%).

The area of Calcutta Metropolitan District is 400 sq. miles. This is a little more than 1 percent of the total area of the State which is 34,194 sq. miles. We therefore face a situation in West Bengal where 76 percent of the total urban population or 19 percent of the total population is concentrated in only about 1 percent of the total area. In 99 percent of the total area lives only 24 percent of its urban population.

West Bengal, now has 14 districts. The Calcutta Metropolitan District is spread out in parts among three of these 14 administrative districts, which are 24-Parganas, Howrah and Hooghly. Of the remaining 11, all except parts of Burdwan district are still substantially in the same position as they were before independence and planning. There have been changes in the upper Damodar Valley alone between Asansole and Durgapur, in the Asansole sub-division of Burdwan district. Now the total population of the various industrial and mining towns of Asansole sub-division add up to 327,296. If we add the population of Burdwan town (108,224) to this population we get a total urban population of 435,620 in the upper Damodar Valley area. The urban population in upper Damodar Valley thus comes to 4 percent of the total urban population of the State if we exclude Burdwan town. Including Burdwan, the area holds 5 percent of the T. U. P. of West Bengal. Now if we exclude the urban population of C. M. D. from the total urban population of West Bengal, we get a residual urban population of 2 million for whole of West Bengal. Of them about 22 percent are concentrated in the upper Damodar Valley area. The entire Asansole sub-division has an area of 624 sq. miles. This, plus the area of Burdwan would form about 3 percent of the total land area of West Bengal. Thus only about 19 percent of the total urban population of the State is distributed in 97 percent of its area. This population is around 5 percent of the total population of the area which is 97 percent of the area of West Bengal. It should be noted that according to the 1941 census the urban population of Bengal was 10 percent of the total population and it came down to 4 percent of the total if Calcutta and its

neighbouring industrial areas were excluded. The present analysis shows that for 97 percent of West Bengal's land surface, the rate of urbanization as it exists now is almost exactly what it was in 1941. Indeed, progress of urbanization has been particularly slow in West Bengal in the decade between 1951-1961. Whereas the growth in urban population compared to the growth in rural population in the decades between 1931-1941 and 1941-51 had been 400 percent or more, in the decade between 1951-61 urban population recorded a rate of growth which was only about 12.5 percent higher than that of the rural population.³ (See table 1 below.)

This has been particularly alarming in view of the very high rate of growth in the general population of the State which has been the highest recorded in a decade so far.

TABLE 1

Variation in Population Growth in West Bengal

	1951-61	1941-51	1931-41
<i>West Bengal</i>			
Total	+32.80	+13.22	+22.93
Rural	+31.81	+ 8.27	+15.55
Urban	+35.97	+32.52	+63.69

As a result of this slow growth in urban population the rural-urban composition of the State's population remained almost static in the last decade.⁴

TABLE 2

West Bengal : Rural and Urban Population, percentage to total population

	Rural	Urban
1941	79.60	20.40
1951	76.12	23.88
1961	74.55	25.45

In 1961, sixty-eight areas were listed as new towns.⁵ Of these, 17 towns were placed in class IV (with population range of 10,000 to 19,999), 35 towns

were placed in class V (range 5,000 to 9,999) and 8 were placed in class VI (with a population of less than 5,000 in each). A very large proportion of these new towns in 1961 were therefore very small towns.

INDUSTRIAL LOCATION IN WEST BENGAL

In fact, little has been done to extend industrialization in the districts of West Bengal. Unlike Madras, where industrial estates have been started in each district of the State, industrial location in West Bengal is rigidly confined to the older industrial areas around Calcutta and Asansole. Extensions that have taken place have occurred only at the margins of the old industrial regions. Thus Asansole industrial region has now been pushed down to Durgapur. Both are on the north bank of the river Damodar in Burdwan district lying along the main railway line joining Calcutta and Delhi. Similarly, the Calcutta Metropolitan District may have been pushed up to Kalyani or down to Baruipur. These are marginal extensions of older industrial regions. They put increased pressure on the existing civic and transport facilities and do not extend them to underdeveloped areas. If we look at the situation prevailing in the districts of West Bengal we find little development of industries. And we cannot afford to forget that most people in the State live in the districts.

THE REGIONAL DIVISIONS

To study the progress of economy and industrialization in the districts it is necessary to treat the three major geographical regions of West Bengal separately. These are (1) North Bengal—stretching from the north bank of the Ganges/Padma⁶ to the Himalayas. Maldah, W. Dinajpur, Jalpaiguri, Cooch-Bihar and Darjeeling districts are parts of the region. (2) West Bengal proper or *Rahr* in Bengali, which corresponds to the region lying on the west bank of the Ganges/Hooghly. A part of Murshidabad district lying in this region should however be considered as a part of central Bengal. Birbhum, Bankura, Purulia, Midnapore, Howrah and Hooghly districts together form this region. (3) Central and South Bengal, which in effect means the district of Murshidabad and the narrow strip of territory on the east bank of the Ganges/Hooghly, comprising of the truncated district of Nadia and also 24-Parganas.

Had our discussion been devoted to a fuller study of regional characteristics we would have had to take notice of the distinct identities of the Himalayan mountain region, the terai and the Dooars, in Darjeeling and Jalpaiguri districts, the gangetic plains in geographical West Bengal or *Rahr*, comprising of Hooghly and Howrah districts and southern and eastern parts of Midnapore district, and the low lying Sunderbans area with its salt marshes south of Calcutta. However, for the purposes of our present analysis

the division of present West Bengal into the above three broad regions can be considered to have sufficient validity.

The occupational pattern in the districts of Burdwan, Hooghly, Howrah and 24-Parganas has been treated separately. There is a deep dichotomy between the industrial and rural areas within these districts which require detailed scrutiny. The broad livelihood pattern in these regions is presented below.

North Bengal

North Bengal has an area of 8,344 miles and a population numbering 54,49,459. Thus it has about 25 percent of the total area and only 15.3 percent of the total population of West Bengal. Though relatively sparsely populated it is and has traditionally been one of the poorest regions of Bengal. Its working population comes up to only 17,57,000 which is only a third of its population. Two-thirds of the total population of North Bengal have no employment and have to depend on the working one-third. Now of this working population, about 1.23 million are agriculturists. Among them about 0.2 million (1,95,381) are landless agricultural labourers, and 10,35,000 are cultivators with some lands. As agriculture in North Bengal is devoted almost entirely to monoculture of rice, even those who own some land have to suffer enforced idleness for five to six months every year, from January to June. Agricultural labourers are employed only at the beginning (before and during sowing) and end of the season for harvest and are largely unemployed for 9 months of the year. The extent and depth of rural misery and the inability of existing agriculture to provide employment by itself to people in the countryside come out in sharp relief from these facts.

The other important source of livelihood in North Bengal is plantations. About 2,58,000 men and women are employed in tea plantations which are concentrated in Darjeeling and Jalpaiguri districts.

However, the number employed in manufacturing industries alone can largely indicate how far industrialization has taken place in any area. From the data presented in 1961 census we find that only 32,446 people were employed in manufacturing industries in entire North Bengal. Thus only 1.8 percent of the total working population of all the five districts of North Bengal were employed in manufacturing industries after a decade and half of independence. At the same time 4.1 percent of the working population is engaged in household industries and 5.0 percent is employed in trade and commerce.

Central Bengal

The district of Murshidabad in Central West Bengal has an area of 2,056

sq. miles and population of 6,64,504. In the working population, 4,24,668 people or between 63 to 64 percent are engaged in agriculture. Among them 1,30,764 people or (about 20 percent of the total working population) are landless agricultural labourers. This certainly indicates a state of crisis in rural economy especially in view of the large section of the unemployed population (i. e. more than 70 percent of the total). Between 22 and 23 thousand people, i. e. between 3 to 4 percent of the working population finds further employment in fishing and orchards. Murshidabad district, which has traditionally been one of the greatest centres of handicrafts in Bengal, also provides employment to 73,232 people or a little more than 11 percent of its total working population in household industries. But manufacturing industries in Murshidabad employ only 20,351 which is just about 3 percent of the total working population. This indicates how far this district in Central Bengal has travelled on the road to industrialization. One is left convinced of the continuation of the corrosive economic pattern of the past with its load of unemployment (now more than 70 percent of the total population), preponderance of agricultural population (now 66 to 68 percent of total W. P.); heavy drag of landless agricultural labourers (now 20 percent of total workers), reliance on cottage industries (11 percent of total workers) and relative absence of manufacturing industries (now employing 3 percent of all workers).

Position is very much the same in Nadia, the other district in Central Bengal. Nadia has an area of 1,514 sq. miles and a population that numbers 17,13,324. Its working population is 4,65,297 or about 26 percent of its total population. Seventy-four percent of the population of this district has no employment and has to depend on others. Of the working population 2,77,352 people (about 60 percent) are engaged in agriculture. Among these, agricultural labourers number 77,616, or a little more than 17 percent of all workers. In comparison persons depending on manufacturing number 25,191 or 5.3 percent of the W. P. This 'high' percentage of industrial workers in a district where all workers form only about a quarter of the total population can perhaps be explained by the close proximity of Nadia to Calcutta. In fact, parts of Nadia district (especially Kalyani township) now form a part of the Calcutta Metropolitan District. Household industries in Nadia provide employment to 9.0 percent of all workers while 7.3 percent of the working population is found employed in trade and commerce.

Rahr or Geographical West Bengal

Purulia, Bankura, Birbhum and Midnapore are the four backward districts of Rahr. Together they have an area of 11,083 sq. miles which is about a third of the total area of West Bengal. Except for parts of Birbhum district the entire area is devoted to the mono-culture of rice. The total

working population in relation to the total population in these four districts is given below:

TABLE 3

District	Area (sq. miles)	Total population	Total working population	Working population as a % of total populttion
Birbhum*	1,757	1,446,158	451,314	31
Bankura	2,653	1,664,513	606,293	36.6
Midnapore	5,258	4,341,855	1,407,094	33
Purulia	2,415	1,360,016	642,026	50
Total	11,033	8,812,542	3,166,727	35.9

*14 percent of the TSA of Birbhum grows a second crop.⁷

The higher average of working population in Purulia and Bankura is related to the higher ratio of Adivasis in the population of these two districts. In Purulia scheduled tribes form a fifth (19.3%) of the to of population, while in Bankura they form a tenth of the total. Together scheduled castes and tribes form 34.1 and 40.1 percent of the T. P. of Purulia and Bankura respectively. Among Adivasis, women work out of doors in the same way as men do. As Purulia has a higher Adivasi component in its population than any other district in West Bengal its labour force in relation to its population (50%) is also the highest in the State.

The various components of the working population in these four districts will come out from the table 4.

The industrial distribution of the working population in the above four Bengal districts certainly does not indicate any decisive move towards industrialization. An overwhelming proportion of the total working population is engaged in agriculture, i. e. 75 percent in Birbhum, 77 percent in Bankura, 79 percent in Midnapore and 88 percent in Purulia. The proportion of agricultural labourers in the total working population is high even for West Bengal, in three of the above four districts, i. e. 30.6 percent in Birbhum, 24.6 percent in Bankura, 20.3 percent in Midnapore but is only 13.6 percent in Purulia.

TABLE 4

District	Total workers	Agriculturists					Workers in household industries	3 as % of 1	Workers in manufacturing industries	4 as % of 1
		non-labourers	Agri. labourers	2b as % of 1	Total	2c as % of 1				
	1	2a	2b		2c		3		4	
Birbhum	451,318	197,122	138,172	30.6	335,294	75	21,057	4.6	12,934	2.8
Bankura	606,293	317,928	149,197	24.6	467,125	77	35,262	5.8	17,247	2.9
Midnapore	1,407,094	781,823	286,077	20.3	1,067,900	79	76,357	5.4	36,669	2.5
Purulia	662,026	492,900	90,419	13.6	583,319	88	20,806	3	11,665	1.8

Again traditional household industries employ between 5 to 6 percent of the working population in Bankura and Midnapore and somewhat less than 5 percent in Birbhum and only about 3 percent of the total working population in Purulia.

But when we come to view the position of manufacturing industries in the economic life of these four districts we find that in Birbhum only 2.8 percent of the working population is engaged in manufacturing industries, in Bankura the proportion is almost 3 percent (2.97%) whereas in Midnapore it is 2.5 percent and in Purulia it reaches the rock bottom at 1.8 percent. These figures demonstrate how little industrialization has progressed in these four districts of West Bengal which comprise about a third of its area and a quarter of its population.

The Industrialized Districts

The character of the socio-economic structure of the State is however best revealed if we compare the variation in (i) urban population in relation to total population; (ii) proportion of agriculturists and more especially of agricultural labourers in relation to the total working population; and the (iii) proportion of manufacturing population in relation to the total working population within the industrialized districts. We find sharp cleavages between one sub-division and another within the same district or even between one thana (i. e. police circle) and another within the same sub-division in the industrialized districts. Contours of dual economy come out in sharp relief if the occupational pattern of the population is studied areawise. Whereas certain areas—sub-divisions or police circles—appear highly urbanized with a high proportion (20 percent or more) of the total working population engaged in manufacturing, adjacent areas or even large pockets within the given area are found to contain high to very high (i. e. equal or higher than the average for the State, i. e. 58.3 percent) proportion of agriculturists especially agricultural labourers in relation to the total working population, and a low to very low (equal or less than the State average, i. e. 11.14 percent) proportion of workers in manufacturing. In all areas where the manufacturing population forms 5 percent or less of the total working population, a larger proportion of workers is found engaged in trade and commerce than in manufacturing itself. The so-called tertiary sector is found to be broader than the secondary sector where the secondary sector itself is underdeveloped.

The only exception to the rule is provided by the Diamond Harbour P. S. which is one of the most backward areas in the State but contains a few southern suburbs of Calcutta in its northern fringe. The exception thus proves the rule. The rule reasserts itself if we consider the situation in Basirhat and Diamond Harbour Police circles as a whole. Table 5 considers the situation in the industrialized districts one by one.

TABLE 5

Occupational Pattern in the Industrialized Districts of W. Benga

District/S. D. (P. S.)	Total population	Urban population	Urban population as % of T. P.	Working population	W. P. as % of T. P.	Agri. labourer	Agri. labour as % of W. P.	Cultivators	8 as % of 4	Agriculturist (6+8) as % of W. P.
HOOGHLY DISTRICT	2231418	579283	(26.0)	681060	(30.5)	134188	(19.7)	206138	(30.0)	(50.0)
Serampore S. D.*	573311	264840	(46.0)	179590	(31.4)	18242	(10.0)	26731	(15.0)	(25.0)
Jangipara P. S.	96944	—	—	29060	(30.0)	7054	(24.4)	10914	(38.0)	(62.0)
Arambag S. D.†	508015	16551	(3.26)	137282	(27.0)	277708	(20.2)	73522	(53.3)	(73.5)
*Of the four police stations in Serampore S. D. two are wholly rural. These are : Chanditala and Jangipara. †3 out of 4 police stations in Arambag S. D. are wholly rural. These are : Goghat, Khanakal and Pursura. Chandernagore S. D. not included.										
BURDWAN DISTRICT*	3082846	561078	(18.2)	1039951	(33.7)	184416	(17.7)	295752	(28.4)	(46.1)
Asansole S. D.	1091074	383708	(35.2)	445245	(41.3)	29711	(6.74)	50228	(11.2)	(17.9)
Burdwan Sadar	1149038	123627	(10.8)	348830	(30.4)	97110	(27.8)	135509	(40.0)	(67.8)
Katwa S. D.	426514	31140	(7.5)	118555	(27.9)	25212	(21.0)	56954	(48.0)	(69.0)
*Burdwan has another sub-division (Kalna S. D.) which is not included in the table.										
24 PARGANAS DISTRICT	6280915	1997957	(32.5)	1843513	(29.36)	325388	(17.6)	578859	(31.4)	(49.0)
Diamond Harbour S. D.	1173953	10135	(1)	335622	(28.6)	94196	(28.0)	159353	(50.0)	(78.0)
Basirhat, Diamond Harbour S. Ds.	2138575	105211	(5.0)	620570	(29.0)	108859	(17.7)	295013	(47.5)	(65.2)
Barrackpore S. D.	1283257	1149951	(9.0)	415450	(32.37)	5962	(1.4)	7603	(1.9)	(3.3)
HOWRAH DISTRICT*	2038477	825092	(40.4)	629519	(31.4)	60002	(9.5)	89848	(14.3)	(23.8)
Sadar S. D.	1174651	750707	(63.0)	396667	(33.8)	20129	(5.0)	23851	(6.0)	(11.0)
Uluberia S. D.	863826	742385	(8.8)	232852	(27.0)	39873	(17.2)	65977	(28.3)	(45.5)
*The district has three more sub-divisions (i. e., Bongaon, Barasat and Sadar) which are not included in the table.										

In Hooghly, (in the riverine area on which lies the western section of the C. M. D.), we find that urban population forms a little more than a quarter (26.0%) of the total population and working population forms a little less than a third (30.5%) of the total population. In the working population, half (50.0%) are agriculturists, nearly a fifth is engaged as agricultural labour (19.7%) while almost the same percentage of the working population (19.4%) is employed in manufacturing. Household industries provide employment to only 4.26 percent of the W. P. while trade and commerce keep 8.0 percent of the W. P. engaged.

However if we go into details, the picture is radically altered. The Serampore sub-division of Hooghly district contains 2 highly industrialised suburban police circles of Calcutta (i. e. Uttarpara, and Serampore) as also two wholly rural police circles, i. e. Chanditola and Jangipara). The Arambag sub-division in the same district which is within miles from Serampore is almost wholly rural—the only town Arambag being the administrative centre of the sub-division bearing the same name. The position is reflected in the occupational pattern of the population in the two sub-divisions. In Serampore, 46.0 percent of the total population is urban whereas in Arambag only 3.26 percent of the total population is urban. While 31.4 percent of the T. P. in Serampore S. D. is employed, in Arambag S. D. the percentage employed is only 27.0 percent of the T. P. Of the working population, in Serampore S. D., 35.5 percent is engaged in manufacturing, 10.0 percent as agricultural labour, 5.5 percent in household industries and 11.5 percent in trade and commerce. In Arambag S. D. on the other hand, only 3.5 percent of the W. P. is engaged in manufacturing, 20.2 percent of all workers is found employed as agricultural labourers, nearly 6 percent (5.9%) is engaged in household industries and around 5 percent (5.2%) in trade and commerce. We find the usual co-relations in the occupational pattern, a low rate of manufacturing workers corresponding to a high rate of agricultural labourers in the working population; and a higher percentage engaged in trade and commerce than in manufacturing industries. Even traditional household industries engage a higher percentage of the working population than manufacturing does. So far as the occupational pattern of the population is concerned, industrial development in one sub-division does not seem to have had any effect in a neighbouring sub-division of the same district. Upto 1961, Arambag S. D. witnessed little structural change in the occupational pattern of its working population inspite of its proximity to the C. M. D. These sharp cleavages exist not only between one sub-division and another but even within the same sub-division. In the rural Jangipara police circle in the Serampore S. D. (and comparably in Chanditola also) nearly a fourth (24.4%) of the working population is engaged as agricultural labourers, only about one in twenty (4.5%) is a manufacturing worker, while about one in six (14.8%) is engaged

in household industries. Trade and commerce employ about one in fourteen (6.9%) of the working population—a proportion though not high in itself, is still more than 50 percent of the manufacturing population. The point to be noted is that these are not rural suburbs of industrialized areas. On the contrary, they are areas of static rural economy whose occupational patterns have remained unaltered in spite of industrial development in the neighbouring or even adjacent sub-divisions or police circles.

The chasms are even wider, if we consider the position in the 24 Parganas district. Geographically, the city of Calcutta lies in the heart of this district though for census purposes Calcutta is considered a separate district. The eastern section of the C. M. D. (which is both larger and more populous than the western section in Howrah-Hooghly districts) lies almost entirely in this district. Taken as a whole, about a third (32.5%) of 24 Parganas' people lives in urban settlement. About three in ten (29.36%) are employed. Of the working population, one in five (21.1%) is a manufacturing worker; somewhat less than a fifth of all workers (17.6%) are agricultural labourers and a little more than one in fifty is engaged in household industries, while the proportion engaged in trade and commerce would come to about one in twelve (8.4 percent). However, these district averages become meaningless when we see the disparities in occupational pattern that exist in the different parts of the district. In the Barrackpore police circle lying to the north of Calcutta which contains almost the entire north eastern section of the C. M. D., 90 percent of the total population (1,283,257) is urban and working population forms about a third (32.37%) of the total. In the working population more than a half is (54.2%) employed in manufacturing and about three in two hundred (1.4%) are employed as agricultural labourers. About one in a hundred (.96%) is engaged in household industries, somewhat less than one in a seven (13.3%) is employed in trade and commerce. While about a fifth of the total workers (19.3%) is engaged in services other than trade and commerce. Compared to this, in the Diamond Harbour subdivision in the south-eastern part of the district, urban population forms less than 1 percent of the total and workers form 28.6 percent of the T. P. In the working population, agriculturists (agricultural labourers and other cultivators) form 78 percent of the total and agricultural labourers form 28.0 percent of all workers. Surprisingly, one in twenty among all workers (5%) is engaged in manufacturing. This is perhaps explained by its proximity to Calcutta with which it is connected by a broadgauge railway. Handicraftsmen and traders form 3 and 4 percent of all workers respectively. Disparities are not so sharp between other S.Ds. of 24-Parganas but even Basirhat S.D. in the south-east approximates the position of Diamond Harbour S. D. If we consider the situation in Basirhat and Diamond Harbour together, comprising the southern half of 24-Parganas' district, (2080.1 sq. miles out of 24-

Parganas' total area of 5637.7 sq. miles) we find that urban population forms only 5 percent of total population and only 29 percent of the total is working. Among workers only one in twenty-five (4.2%) is engaged in manufacturing while the proportion engaged in trade and commerce comes to about one in twenty (4.7%). About a sixth of all workers (17.7%) are agricultural labourers while 65 percent of the W. P. is made up of agriculturists. In their respective socio-economic structure the different parts of 24-Parganas district are more like worlds apart than anything. Industrial and other developments in Calcutta and its suburban areas do not seem to have affected the occupational pattern of large parts of the district at all upto 1961.

The situation in Burdwan—another partially industrialized district repeats the usual pattern. If we consider the situation in the district as a whole we find that 18.2 percent of the T. P. is urbanized and workers form a third (33.7%) of the total. While manufacturing engages a fifth (20.7%) of all workers, agricultural labourers form somewhat less than a fifth (17.7%) of T. W. About one in eight (11.6%) is engaged in trade and commerce while about one in sixteen (5.9%) is employed in traditional household industries. These district averages however appear without significance when we scrutinize the situation in different sub-divisions of the district and radically different patterns of social occupation emerge. While in mineral-rich Asansole 35.2 percent of the T. P. is urbanized, workers form 41.3 percent of the T. P., in the Sadar sub-division about one in nine (10.8%) lives in an urban settlement and only 3 in ten (30.4%) are employed. In Katwa S. D. about one in 13 is urbanized and less than 3 in ten (27.9%) work. Again in Asansole, a fifth of all workers (20.7%) is in manufacturing and a third of the working population is (32.8%) employed in mines. Only about one in 14 is an agricultural labourer (6.74%). While about the same proportion (7.0%) is engaged in trade and commerce and only four in 300 (1.3%) is engaged in household industries.

In the Sadar division of Burdwan, nearly three in ten are agricultural labourers and while about one in 25 is employed in manufacturing (4.3%), one in 20 is engaged in trade and commerce (5.0%), and only five in 200 are in household industries (2.6%).

Sharp cleavages also exist between the rural and urban areas of Howrah district. Whereas in Howrah Sadar S. D. (which includes Howrah city) 40 percent of the T. P. is urbanized and 36 percent of the W. P. is employed in manufacturing industries, in Uluberia S. D. urban population forms only about 9 percent of the T. P. while manufacturing engages less than a quarter (23.2%) of the working population. Even more significant is the fact that while agricultural labourers form only 5 percent of the working population in Howrah Sadar S.D. they form nearly a sixth (17.2%) of the W.P. in Uluberia S. D. Interestingly, household industries engage about the same proportion

of total workers in both sub-divisions (3.3% and 3.0% respectively) while the proportion engaged in trade and commerce in Howrah Sadar (15.3%) is double that of Uluberia S. D.

The occupational pattern of the industrialized districts of West Bengal therefore reveals the problem of structural inertia and dual economy more clearly than even the backward districts. While industries (i. e. jute, textiles) had been started in and around Calcutta more than a century back, industrialization has not spread out either geographically or socially. Its base remains narrow. The situation is reflected in the ribbon development of urban areas. Whole areas in the industrialized districts remain wholly rural with the retarded occupational structure characteristic of these areas. Agriculturalists predominate among all livelihood classes and landless agricultural labourers appear to be the most numerous class apart from cultivators who are very mixed and may include anything from share-croppers to rent receivers. The only effect that industrialization seems to have had in some areas (i. e. in Burdwan, and especially in 24-Parganas and Howrah) is that the proportion of workers in household industries among all workers has been greatly reduced. In rural areas, wherever manufacturing workers form 5 percent of all workers or less, the proportion engaged in trade and commerce tends to be higher than that in manufacturing. A high proportion of manufacturing workers is always positively correlated to a low rate, i. e. less than the State average, of agricultural labourers in the total working population. Significantly, this correlation is valid for only a small geographical area and is not seen to operate outside the sub-division where industrialization has taken place.

ELECTRICITY GENERATION AND SALES IN WEST BENGAL

A study of the power situation in West Bengal, its regional distribution and the power generation programme of the State further reveals the state of economic and industrial progress in this State.

At the beginning of the 3rd plan, there developed a power famine in Calcutta and the surrounding industrial areas. Breakdown in power supply became so frequent and production in industries was so badly hampered that large private industries threatened to walk out of the State. Till then—in a decade of planning—the State government had done little to generate electric power in the State. The table below will bring out the position clearly.²

TABLE 6

Statewise Power Generation by State Electricity Boards

State	Number	Installed capacity in Kw.
Andhra	1	269,673
Mysore	1	186,129
Kerala	1	137,262
Madras	1	517,466
Maharashtra	1	272,393
Gujarat	1	143,390
Madhya Pradesh	1	242,872
Punjab	1	269,888
Rajasthan	1	58,526
U. P.	1	305,246
Bihar	1	19,127
Orissa	1	134,138
West Bengal	1	12,981
Assam	1	14,820

It can be seen (from the above table) that West Bengal occupied the lowest position in generation of electric power by State Electricity Board among all the States of India.

However, in West Bengal and Bihar the D. V. C. also generates electricity and its contribution must be taken into account in any estimate of power generation in the public sector. The installed capacity of D. V. C. in March 1961 in these two States is given below.⁹

TABLE 7

State	Power generating body	Installed capacity in Kw.
Bihar	D. V. C.	299,000
West Bengal	D. V. C.	225,000

Even with the D. V. C., the generation of electricity in the public sector in West Bengal was proportionally the lowest among all Indian States. The table below clearly brings this out.¹⁰

TABLE 8

State	Power generation in the private sector (installed capacity) in Kw.	Total power (installed capacity) in Kw.
West Bengal	513,701	753,656
Bihar	32,766	350,893
Assam	4,610	19,430
Orissa	2,111	136,249
Kerala	—	137,262
Madras	—	517,466
Andhra	165	269,838
Maharashtra	486,807	759,527
Gujarat	187,396	333,267
Madhya Pradesh	24,335	267,537
Rajasthan	11,596	10,675
Punjab	2,339	277,077
U. P.	83,638	397,444
Mysore	4,913	191,076

Thus in West Bengal, installed capacity under private sector in 1961 March accounted for 68 percent of total installed capacity. In no State of India was this percentage so high. Only in Maharashtra and Gujarat was installed capacity in the private sector higher than in the public sector being 64 and 56 percent of the total installed capacity, respectively. However, in West Bengal, the company having an overwhelming hold on power generation in the State, i. e. Calcutta Electric Supply Corporation (or C. E. S. C.) is like various institutions in West Bengal, a private limited company incorporated in England. This is not the case in W. India where the private company having the greatest stake in power generation is an Indian concern and runs a number of heavy and light industries. As such, it is very largely connected with the process of industrialization in India and bears certain responsibilities which the foreign-owned C. E. S. C. does not. Other States of India even of Eastern India present a different picture from West Bengal. In Bihar,

less than 10 percent of total installed capacity was in the private sector, in Orissa it was around 3 percent and in Assam less than 25 percent. In Madras and Kerala the entire generation capacity was in the public sector and it was very much the same in Andhra. In Mysore the share of the private sector in total installed capacity was only 2.6 percent. In the Punjab it was just about 1.2 percent. In U. P. it was just about 21 percent, and in Rajasthan 16.9 percent of the total installed capacity was in the private sector. Except for West Bengal, Maharashtra and Gujarat, power generation is overwhelmingly controlled by the public sector everywhere and nowhere has it been so largely under the control of foreign capital as in West Bengal.

This dependence on foreign capital in such a vital sector of the economy as power generation led by the beginning of the Third Plan to widespread and repeated power failures leading to widespread dislocation in industrial production. The situation moved the central government to appoint a power survey committee for the region. This committee usually known as the Sachdev Committee estimated a total demand of 1,184 mw in West Bengal by the end of the Third Plan period. This estimate was subsequently raised to 1,219 mw. Of this total demand the D. V. C. was estimated to supply 334 mw and the C. E. S. C. 295 mw, leaving a deficit of 590 mw. to be filled up by the State Government.

It was only after the publication of the Sachdev Committee Report that the West Bengal Government took steps to redress the situation. In his budget speech of 1964-65, the West Bengal finance minister said on 19 February 1964 that they had plans for construction of new power units with a total installed capacity of 788 mw. out of which 545 mw. would be available as firm saleable power by the end of Third Five Year Plan. The following table 9 gives details of this power plan.

It can be seen that even in its plans in 1964 the West Bengal government concentrated its attention almost entirely on the C. M. D. and Asansole-Durgapur region. North Bengal was allotted a bare 18 mw. and Central Bengal only 3 mw. The four backward districts in Rahr were neglected as before. The 1000 mw Santaldihi project later included in the Fourth Plan now stands suspended like the Fourth Five Year plan itself.

Since the budget was passed in 1964-65, newspaper reports mentioned that three units (each of 75 mw) had been commissioned in Durgapur one after another in April, July and early August, 1964. Even as these units were being commissioned the following news item came out in the *Statesman*, Calcutta, on 3rd July 1964 under the caption 'Durgapur power not fully used' ! The report stated, 'The state owned Durgapur thermal power station is now having difficulty in finding users for all the power that it now produces. The D. V. C. has recently informed the power station authorities that it cannot consume more than its present quota. There is also an indication

that the D. V. C. may reduce its present rate of consumption'.

TABLE 9
Power Plant Construction Programme of West Bengal Government

Power plants	Capacity mw
3 units at Durgapur (each of 75 mw)	225
Power unit at Bandel ¹¹ (due date of commission November 1964)	330
Six package Plants (each of 1.5 mw). (Among six, four in Disergarh in Burdwan district and two at Farakka in Murshidabad district.)	9
2-stage, Jaldaka project in North Bengal (of which 1st stage of 9 mw was due in March 1965).	18

Now, how can we solve a riddle such as this? On the one hand we are told that non-availability of power holds up industrial expansion in the State, but with a slight rise in power supply we are faced with a surplus! Perhaps the peculiar nature of the growth of industrial capital in West Bengal and the consumption pattern of power in the State together can explain the paradox.

The Economic Review 1963-64 published by the Government of West Bengal states that, 'the number of industrial licenses issued under the Industrial Development and Regulation Act, 1951, which has shown a decline of about 26.8 percent in 1961 recorded a further decline of about 14.8 percent in 1962'.¹² And yet the same source mentions that, 'though the number of companies recorded only a slight rise (1.6 percent) after a continuous fall over a long period, the paid up capital maintained its upward trend registering a substantial increase during the year. The total paid-up capital of all companies at work rose to Rs. 513.7 crores in 1962-63 from Rs. 432.7 crores in 1961-62 and Rs. 400.9 crores in 1960-61. The total rise in paid up capital of the joint stock companies at work in West Bengal during first two years of the Third Plan is of the order of Rs. 112.8 crores.

The rate of growth of 5.7 percent in 1961 rose to 21.2 percent in 1962-1963. Public companies showed a rise of about 24.0 percent in their paid up capital in 1962-63, the private companies recorded a rise of 17.7 percent'.¹³

The figures quoted above clearly reveal that what has happened in West

Bengal is no growth of industries either vertical or horizontal, but a growth of monopoly capital within the industrial structure. The frontiers of industry, whether geographical or economic, remain relatively unchanged, but within its structure is being altered. And so, we have little growth in urbanization, rural areas remain largely unaltered and electric power is not fully used even before its generation can get to full swing.

No power generation programme in the State can be successful unless the established pattern of the consumption and the geographical distribution of power in West Bengal is altered. The government of West Bengal has also been behind all other States in India in using power in agriculture or in extending power to rural areas. The following tables bring it out clearly.¹⁴

TABLE 10
Towns and Villages Electrified
(Statewise distribution as on 31.3.62)

State	Population (5,001-10,000)	Below 5,000
Madras ..	432	6,000
Maharashtra ..	116	1,005
Mysore ..	95	2,779
Punjab ..	112	3,425
U. P. ..	138	4,426
West Bengal ..	30	357

TABLE 11
Classification of Connected Load in Kw. as on 31.3.62

State	Domestic light and small power	Industrial power	Irrigation and de- watering	Total connected load in Kw.
Madras	311,508	563,967	517,095	1,505,528
Maharashtra	405,423	938,052	23,124	1,506,751
Punjab	140,183	217,369	73,151	508,073
U. P.	134,575	265,448	77,931	539,974
West Bengal	484,537	785,255	20	1,290,792

TABLE 12

Analysis of Sales of Electricity in West Bengal, (1960-61)¹⁵

in thousand Kw. hours

Districts	Private	Board	Total
1	2	3	4
Burdwan	366,292	17,525	383,817*
Bankura	2,976	—	9,976
Midnapore	2,361	7,236	2,597
Birbhum	—	13,933	13,933
Howrah	245	6,170	6,415
Hooghly	5,549	2,935	8,484
24-Parganas	190,493	5,951	196,444
Calcutta	1,955,037	61,816	2,016,853
Nadia	3,776	108	3,884
Murshidabad	1,613	74	1,687
Maldah	779	71	850
West Dinajpur	—	612	612
Jalpaiguri	1,039	51	1,090
Darjeeling	6,598	3,404	10,002
Cooch-behar	—	1,921	1,921
Purulia	1,332	3,211	4,543
Total	2,538,170	125,018	2,663,188
of which			
Calcutta	1,955,037	61,816	2,016,853
Asansole S. D.	366,292	10,385	376,677
	2,321,329	72,201	2,393,530

*All except 7,140 Kw. hours in Burdwan-Memari grid sold in Asansole S. D.

Thus we find that 90 percent of the total electricity sold in West Bengal is sold in Calcutta and Asansole Durgapur region. Roughly 76 percent of the total is sold in the Calcutta area alone. Between 14-15 percent is sold in the Asansole-Durgapur region, and only the residual 10 percent is sold in the whole of West Bengal leaving the above two areas. It would be wrong to look forward to any development of industries in the underdeveloped areas of West Bengal as long as the area-wise sales pattern of electricity as listed in the State in 1960-61, persists.

LITERACY IN THE STATE

Socio-economists like Schultz have made the concept of education as a valuable social investment well known and widely accepted to-day. An educated worker is capitalized labour. Increase in man-hour productivity is positively co-related with rising standards of literacy and education among workers. Innovations and technological progress ultimately traced to rising standards of education in a community and a rise in productivity is related more to technological progress than to a rise in physical capital formation. Solow for example, estimated that of the increase in output per man-hour in the U. S. A. from 1909 to 1949, about 13 percent was due to increase in physical capital, whereas 87 percent or more was due to technological progress. It is for this reason that a rise in literacy rate is considered as an index of potential created for economic progress. Judged by this standard the position in West Bengal has not been encouraging.

The table in the next page giving the variation in the literacy rate of major Indian States between 1951-61 shows that West Bengal had the lowest rate of growth in literacy, among all Indian States. The highest net increase in literacy rate was achieved in Madras (11 percent). This indicates a growth rate, in literacy of only a little more than 1 percent per annum. Among the 14 major Indian States the medium rate of growth in literacy has been 6.8 percent in the last decade and the lowest has been in West Bengal being around 5 percent in a decade.

However, table 13 which gives an average of both rural and urban literacy and of literacy among males and females does not indicate the real situation in the State. Variations between rural and urban literacy in the different districts of the State are of importance because they are large. Also, rural population itself is considerably greater than the urban population and rural literacy is a surer index of the actual situation on this front than urban literacy can be. (See Table 14.)

TABLE 13

Percentage of Literates in Major Indian States (Excluding Jammu and Kashmir)¹⁶

State	1951	1961	Rate of increase between 1951-61
Kerala	40.7	46.8	6.1
Madras	20.7	31.4	10.7
Gujarat	23.1	30.5	7.4
Maharashtra	20.9	29.8	8.9
West Bengal	24.0	29.3	5.3
Assam	18.3	27.4	9.1
Mysore	19.3	25.4	6.1
Punjab	15.2	24.2	9.0
Orissa	15.8	21.7	5.9
Bihar	12.2	18.4	6.2
Uttar Pradesh	10.8	17.6	6.8
Andhra	13.1	21.2	8.1
Madhya Pradesh	9.8	17.1	7.3
Rajasthan	8.9	15.2	6.3

TABLE 14

Percentage of Literate and Educated Persons to Total Population¹⁷

State	Rural	Urban	Urban rate as percent of rural rate
1	2	3	4
West Bengal	21.64	52.89	240.9
Presidency Division	18.69	55.00	290.0
Darjeeling District	21.77	51.72	236.1
Jalpaiguri „	16.20	49.31	306.25
Cooch Behar „	18.29	56.98	311.4

1	2	3	4
West Dinajpur			
District	14.57	47.83	320.0
Malda District	12.34	47.36	385.4
Murshidabad			
District	13.72	40.74	293.0
Nadia District	21.64	52.10	236.4
24-Parganas District	23.54	59.29	256.2
Durdwan Division	24.42	48.11	200.0
Howrah District	29.65	47.58	160.0
Hooghly ,,	28.92	51.01	176.0
Burdwan ,,	25.13	49.57	200.0
Birbhum ,,	20.55	42.62	204.8
Bankura ,,	21.55	42.36	196.3
Midnapore ,,	25.67	46.49	180.0
Purulia ,,	15.69	45.27	290.0

Rural literacy (21.64%) in West Bengal is thus considerably less than half of urban literacy rate (52.89%). It is even lower in North Bengal districts. In all districts of North Bengal (except Darjeeling) rural literacy varies between 12 to 18 percent of the T. P. while urban literacy rates vary between 47 to 57 percent of the same. Urban literacy rate is therefore 300-400 percent of rural literacy rate in North Bengal. The situation is comparable in Murshidabad where urban literacy rate (41%) is about 300 per cent of the rural rate (14%).

In the three backward districts of Rahr, urban literacy rate, varying between 42-46.5 percent is about double that of the rural literacy rate. Only in Purulia district is the urban literacy rate (45.3%) nearly three times higher than the rural rate (15.7%). In the industrialized districts (except 24 Parganas) variations between urban and rural literacy rates are less pronounced. While a half of the T. P. in urban areas are literate between 25 to 30 percent of the rural population are also literate in Burdwan, Howrah and Hooghly. In the 24-Parganas urban literacy rate (59.3%) is one of the highest in the State while the rural rate (23.5%) is behind all other industrialized districts. This situation is not unexpected in view of the great disparities between the different areas of the district. The position in Nadia is also comparable.

Reports published in the *Calcutta Statesman* in August 11, 1964 gave revealing details about the state of primary education in West Bengal. It was brought out that West Bengal ranked 10th among major Indian States in total direct expenditure on elementary education per head of population.

This amounts to Rs. 2.46 only in West Bengal. Kerala, Maharashtra and Gujarat ranked 1st, 2nd, and 3rd, with the following per capita expenditure on elementary education: Rs. 5.28, Rs. 4.12 and Rs. 3.60, respectively. West Bengal also ranked 10th in the percentage of expenditure on elementary education in relation to total State income, spending 0.96 percent of its income for the purpose. The average annual salary of elementary teachers in West Bengal was Rs. 823.3 compared to Rs. 1,222.6 in Maharashtra, Rs. 1,212.4 in the Punjab,¹⁸ Rs. 1,113.0 in Gujarat, Rs. 922.0 in Rajasthan and Rs. 908.0 in Madras. West Bengal ranked 8th among 15 Indian States in this regard. The percentage of trained teachers among all elementary teachers was lowest in West Bengal (35.4) among 15 Indian States while cost per trainee in the State was among the lowest in India. West Bengal was spending Rs. 242.3 per trainee compared to Rs. 1,154.5 spent in Maharashtra or Rs. 1,123.3 spent in Kerala. The State ranked 12th among 15 Indian States in this respect.

CONCLUSION

In conclusion we can perhaps summarise our findings. The decade between 1951-61, witnessed a slowing down of the process of urbanization in West Bengal. Urban population continues to be heavily concentrated in and around Calcutta. The only other urban area in the State is the Asansole-Durgapur region in the Damodar Valley which is still not very important. Occupational pattern of the population reveals that agriculture is the mainstay of the population in all areas of the State. Manufacturing is confined to very narrow limits whether geographically or socially. Industrial developments so far have failed to bring about any structural change in the areas close to where industries are located. The State government took an interest in power generation only at the end of decade after a crisis had developed. In the State, the power plan threatens to generate a crisis of over production whenever it comes near success because the consumption and distribution of power follow a set pattern inherited from the past. Progress of literacy in the State has been particularly slow during the decade, in fact, the lowest among all Indian States. The difference between rural and urban literacy continues to be enormous, urban literacy being 2 to 3 times greater than rural literacy in the districts.

NOTES AND REFERENCES

1. Areas refers to districts, sub-divisions and police stations as given in the Indian Census. The areas under a police station have been referred to as a police circle in the text.
2. Agriculturists include both agricultural labourers and cultivators, i.e. Census Category I and II in the livelihood classes.

3. *Census of India 1961*, Vol. XVI, Part II-A, pp. 160-61.
4. *Second Agricultural Labour Enquiry Commission Report*, 1956 ; and *Census of India 1961*, Vol. XVI, Part II-A.
5. *Census of India 1961*, Vol. XVI, Part II, pp. 78-9.
6. The Ganges bifurcates into two streams just after it enters Bengal. The main stream flows south-eastwards as the Padma, through what is now East Pakistan. The other stream flows almost straight southwards and is called Ganges by Bengalis but Hooghly in most English books. I have called the former Ganges/Padma and the other Ganges/Hooghly to avoid possible confusion.
7. Personal communication from the Principal Agricultural Officer, Birbhum, dt. 23.7. 1967.
8. Public Electric Supply 1960-61. General Survey, Central Water and Power Commission.
9. *Ibid.*
10. *Ibid.*, Table III, p. 5.
11. Bandel is situated at the north western edge of Calcutta Metropolitan District on the main railway joining Calcutta and Durgapur-Asansole.
12. p. 26.
13. *Ibid.*, p. 32.
14. *Central Water and Power Commission General Survey, 1961-62.*
15. *Statistical Abstract of West Bengal 1960-61*, Table 16.6, pp. 237-40, State Statistical Bureau, Government of West Bengal.
16. *Census of India 1961*, Final Population Table, Statement 30, p. xxxii.
17. *Census of India 1961*, Vol. XVI, Part II-A, Statement IV, p. 254.
18. Punjab refers to the State as it was before its second partition between Haryana and present Punjab.

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PRIYATOSH MAITRA

Changes in Occupational Pattern and Industrialisation in India, 1901-1961

THE present paper deals with broad occupational distribution of population in India from 1901 to 1961. Strictly speaking, this refers to industrial distribution of labour force and population and not occupational distribution as we today understand it. The distinction was introduced first in Great Britain in 1921 but we have not yet been able to introduce it in our census classification.¹ This appears to be mainly due to the unorganised nature of economic activities which makes it very difficult to demarcate the labour force by detailed occupational classes. N.S.S. has made recently (since 1955) a modest attempt to collect information of labour force distributed by occupation and activity status. We have not been able to use it as our study covers the period from 1901 to 1961. The data of detailed occupational distribution which is now available is not comparable for the period under our study.

In this paper we have made a modest attempt to study the changes in occupational distribution of labour force as a whole in the sense stated above, vis-a-vis, industrial development of the country during the period from 1901 to 1961. Main objective is to study the economic factors responsible for more or less static pattern of occupational distribution of labour force as revealed through Census reports of these periods inspite of the growth of modern industries in the country.

Study of the pattern of occupational distribution of population of a country is regarded as one of the most effective ways of measuring economic

development of that country. Because economic development, in other words, industrialisation involves the transformation of society's occupational structure. Thus the pattern of occupational distribution is perhaps the best index of the extent of industrialisation and economic development of a country.

It follows, therefore, that changes in the pattern of occupational distribution result from the pattern of industrialisation. That is, the former is the function of the latter. With the growth of the economy of a country, the numbers engaged in agriculture tend to decline relative to the numbers in manufacturers, which in their turn decline relative to the numbers engaged in service. This is common knowledge that with the growth of the economy an increase in agricultural productivity begins to take place resulting from the increased use of capital in agriculture, on the one hand, and on the other, with the rise in income resulting from growth, income elasticity of demand for food gradually appears to be less than one. These are the real forces on the side of demand and of supply which causes reduction in the real labour done in farming. Again, with economic development and industrialisation, real product per man hour in manufacture nearly always increases at a faster rate than the real product per man hour in other sectors of the economy. This is with regard to supply side. On the demand side, with industrialisation, service sector invariably expands at a faster rate, with increased demand for its products by government departments, teaching and research, medical services, entertainments of various kinds, transportation services, commerce, trade and finance and welfare services. Per capita availability of these services is today regarded as an important index of the economic development. The surplus created through increased productivity in agricultural and manufacturing sectors with relatively small labour helps in the rapid expansion of the service sector because of the rapidly increasing demand for its products. "Thus a stationary relative demand for manufactures would lead to a decreasing proportion of the labour force employed therein."² Even when the relative demand for manufactures is increasing, in the long run, a decreasing proportion of the labour force is engaged therein.

This is also to be noted here that with industrialisation all sectors of the economy become relatively organised and thus the proportion of own account independent workers, which had a dominant position among the different categories of workers in the unorganised condition of the economy, declines; while the number of employees increases. This can be studied only for the period from 1951 to 1961 because of absence of data for other periods. Table No. 4, 5, 6, would give us some idea in this regard.

A glance at the occupational structure of any under-developed country will reveal that agriculture and allied activities take the largest share of the labour force (varying from 70% to 80% of the population), which interestingly enough, is followed by petty trade and domestic services, called

tertiary activities and not by manufactures, i.e. secondary activities. In a poor economy this is natural because the above services require a very negligible saving, skill and education which is within the ability of the economy to supply. This is also true that in these services there exists a huge number of disguised unemployed over and above those in the primary sector.

History of economic growth of developed countries like Great Britain shows (Table 1) that occupational pattern changes, for the reason stated earlier, in favour of manufacture at first and then, of service sector. This is, however, to be noted that the share of domestic service in the service sector in the developed economy declines sharply.

The Table 2 gives us the pattern of occupational distribution in India from 1901-1961 which reveals under-development of our economy, i.e. our human resources are not being utilised adequately even today.

Economic history of India during this period shows that there has been an increase in national income and considerable expansion of modern industrial activities, but paradoxically enough these have not been reflected through changes in the occupational structure. In any event there is but limited evidence over the century of a clear cut shift toward the occupational structure of an urbanising industrialising country. It is notable that the number of persons engaged in agriculture increased relative to all workers, the ratio in 1951 (72.4%) being higher than for comparable figures based on Census Reports from 1901. Recent research on India's economic development also reveals the following perplexing facts about India's development.

Modern industry came to India more than a century ago. India has long been an important exporter of jute and cotton textiles; an efficient integrated iron and steel industry was established over sixty years back; major industrial nuclei were created over the country with a wide range of related industrial and service activities. The railways crossed over the sub-continent one hundred years ago; yet as Professor Oilfred Malenbaum has rightly pointed out,³ India was not appreciably more industrialised than in the first decade of the century, at least in terms of relative importance of modern industrial output and employment. The truth of this statement can be clearly realised when Table 2 is analysed.

Table 2 shows a declining proportion, as well as, falling absolute number, of population engaged in manufacturing industry other than house-hold industry. The Census of population of 1961 alone gives figure for population engaged in the household industry separately which seems to be relatively very high. Quantitative analysis of the changes of economic structure of our country is seriously handicapped by the paucity and unreliability as well as uncomparability of the statistical information available for this period, particularly, regarding national income and industrial investment and production.

Regarding the growth of factories in India, we get the following informa-

tion for the period 1860-1939. This period has been sub-divided into two parts—one covering the period upto the First World War and the other covering the period from the First World War to the Second World War.

According to Professor D.R. Gadgil, the era of modern industries in India began from the year 1860.

Growth of Modern Factories, 1860-1939

<i>Year</i>	<i>No. of factories</i>	<i>No. of workers engaged</i>
1860-1913	7,113	2.1 Lakh
1914-1939	11,613	17.5 Lakh

Further, the proportion of population depending on agriculture and other primary activities (i.e. categories I, II and III) has shown an increase from 28.42% of the total population in 1951 to 31% in 1961⁴—a period during which we made planned efforts towards industrialisation. Industrial production has also increased considerably as is revealed in the following index number of industrial production. It is, therefore, interesting to note that during this period proportion of population engaged in secondary activities remained the same.

Index Number of Industrial Production

(1961 = 100)

1951	..	100
1955	..	170
1961	..	180

During this period, total investment in industries has increased from Rs. 288 crore to Rs. 1788 crore.

Moreover, during this period national income per capita has increased in the following way.

<i>Year</i>		<i>Per capita income at constant price</i>
1950-51	..	247.5
1955-56	..	267.8
1960-61	..	293.2

Rate of population growth during this period does not appear to be very high. In 10 years from 1901 to 1911 population rose by 5.8% only, whereas in the following 10 years it showed a decline from 252 million in 1911 to 251 million in 1921. In the following years from 1921 to 1931, 1931 to 1951 and 1951 to 1961, annual rate of growth of population was 1%, 1.47% and 2.1% respectively.

Thus the rate of growth of population is higher than the previous years. But during this time, the rate of growth of national income is also higher than the rate of growth of population. Yet, the occupational structure does not show much favourable change.

Analysis of the Census Reports from 1901 to 1921 shows, that there was a really marked increase in the population of total labour force engaged in agriculture between 1901 and 1911, i.e. 71.86% to 75%. This was due to the fact that the people engaged in handicrafts lost their living, because of the government measures and the competition from the products of big industry and these people were forced back to agriculture. During this period, the proportion of the labour force engaged in manufacturing also showed decline by nearly 2%. In the service sector, too, there was a decline of 2% of labour force. It is interesting to note that the proportion of non-working population recorded, instead of, a rise, a decline by 1.50 percent. Thus there was a concentration of labour force in agriculture.

The Census Reports of 1921 and 1931 also show that there was further rise in the proportion engaged in agriculture during this period which was round about 76% throughout the period from 1911 to 1931. But the proportion engaged in manufacturing sectors naturally did not show any rise. Obviously, the proportion of non-workers of total population, as well as the proportion of labour force engaged in the service sector recorded a swelling.

During 1951 to 1961 this trend continued with some difference. During this period, proportion of working population engaged in primary sector showed a decline relative to a slight increase in its share of total labour force compared to previous years. The proportion engaged in manufacturing remained more or less the same during this period with, however, a slight increase of 1% in 1961. But the proportion of non-workers of total population showed a sharp rise in 1951 to nearly 61% from 56.70% in 1931 which again declined to 57% in 1961.

In the present context what is important is that the very fact of the failure of a growth process to emerge over these years reflected through static occupational structure, the range of favourable components, notwithstanding, means that forces resistant to economic growth have strengthened. Primarily, the effects would be manifest among agriculturalists and among handicraft

workers; hard hit by foreign or domestic factory competition. Limited employment horizons, resulting from a process of industrialisation devoid of 'built-in technological progress' effects, strengthen the hold of production techniques with built-in under-employment.

In India, modern methods of production that were introduced since the middle of the 19th century, were not the result of a process of local economic growth. This resulted from the needs of a foreign economy, and through the use of imported machineries which had no backward linkage effects that could help expanding employment horizons of the modern economic activities.

Industrialisation in India was confined at the beginning to plantation and textile industries, machineries for which were imported. Thus the limited modern industrial sector that grew was following capital intensive methods with the help of imported machineries and technical know-how. This process of development has got a very little backward linkage effects and thus the diffusion of growth effects of developments of modern sector did not take place. This is also due to fixed technical coefficient of factors of production of this type of development of industries. Therefore, the capital intensive sectors based on imported machineries make little direct contribution to employment. In Indian experience, employment multipliers seem to be small and therefore, occupational structure remained almost static. This observation is applicable even today. The Secretary of the Federation of Indian Chamber of Commerce wrote in 1958: "It would not be an exaggeration to say that basically, the industrial structure in 1951 was very similar to the one that the country achieved by the late thirties. . . . Despite the much boosted war effort and the marginal advances that had been made here and there, the country was only marking time throughout the forties as far as industries were concerned".⁵ Professor K. N. Raj of Delhi University pointed out: "Most of us are not prepared to take at face value the claim that a product has been 'manufactured in India' without enquiring what proportion of the final value is accounted for by imported intermediate goods. This proportion is in reality very much high in the case of several articles used by upper income groups". It has been also stated in the preface of the Third Plan that despite industrial growth, structural change in our economy has not taken place: "The success in the industrial field, considerable though it is, 'has so far been insufficient to radically alter the structure of the economy'."

In this type of development, i.e., the development of a modern sector dominated by consumer goods industries (with imported machineries lacking backward linkage effects) encircled by a stagnant but crowded agriculture, production in the rural sector is carried with variable coefficient of factors of production. Naturally, growing population is to find their livelihood in the rural sector which can absorb the growing hands because of the variable technological coefficient of factors of production and thus labour intensive

methods of production infested with disguised unemployed ensues and this makes introduction of labour-saving methods almost difficult without bringing about radical changes in the production relation and in the organisation of production as well in the rural economy.

Thus in the rural economy both the primary sector and also the unorganised service sector which too can absorb growing population at the cost of productivity are swelled with increased proportion of non-working population.

The same trend is visible in our economy even during the plan period. No serious attempt to modernise our rural economy compatible with our own resources has been made, on the one hand, and on the other, efforts have been made to industrialise the economy with the help of highly sophisticated imported machineries and technical know-how relative to the low level of our economy, instead of attempting seriously to use local skills and other resources. Growth of these industries again is concentrated largely in the production of sophisticated consumer goods. This has created a serious imbalance in the whole economy. Thus a highly capital-intensive method of production with imported machineries in a limited industrial sector has been in operation which obviously has very little employment multiplier effect in India's economy. The more or less static occupational structure with primary sector taking the largest and more or less increasing share despite the growth of industries and national income may also be taken to support the fact that whatever growth in income and wealth, that has taken place in the country has been concentrated in the hands of a few. Mahalanobis Committee Report and R. K. Hazari Report prove this trend. In other words growth effect have not been diffused and our present occupational structure is a proof. At the same time, the vast but un-organised rural sector composed of 72% of population has remained too poor to provide markets for the products of limited but highly sophisticated industrial sector. Thus a crisis has set in today in our economy. It could have been avoided if we could have used our own resources, in the field of industrialisation, and introduced modernisation in our rural economy as far as our local resources would permit and through changes in the production relation and the organisation of production. The latter is surely within our means. Had these been done, favourable changes in the occupational structure would have been possible proving more conducive to economic development providing much higher rate of increase in per-capita income and greater and more productive employment opportunities than the present economic structure composed of highly sophisticated but enclaved industrial sector and vast but stagnant rural sector.

TABLE I

Broad Occupational Distribution of Labour Force in Great Britain, 1841-1951 (Percentage Distribution)

Year	Primary		Secondary		Service Sector						
	Agriculture, Fishing & Forestry	Mining	Construction	Manufacture, Elec. and Gas	Transport and Communications	Commerce & Finance	Profession & Entertainment	Govt. Services	Private domestic services	Short services	
1841	23.1	3.1	5.8	36.6	3.0	5.7	2.9	1.1	—	19.1	—
1881	12.3	4.1	6.7	39.5	5.9	9.2	3.8	1.9	—	16.6	—
1901	8.7	5.9	8.0	32.9	9.8	11.0	4.4	2.5	14.3	2.0	
1911	7.8	6.9	5.2	34.6	8.0	— 18.7	—	4.2	9.0	5.6	
1921	6.7	7.3	4.1	38.7	8.1	13.2	3.7	6.4	7.0	4.5	
1951	4.5	3.9	6.3	39.5	7.8	14.2	7.0	8.0	2.3	6.8	

Note: This table indicates the pattern of broad occupational distribution of labour force in a developed economy. This may be compared with Table 2 giving the same information for India for the period 1901-1961.

Source : Colin Clark—*The Conditions of Economic Progress*, p. 515.

TABLE 2
Percentage Distribution of Workers by Industrial Categories, 1901-1961 (India)

Year	Total population	Total workers	Non-workers	As cultivator	As agricultural labour	In Mining, Quarrying, Live-stock, Forestry, Fishing, Housing and Plantations etc.	At household industry	Manufacturing other than household industry	In construction	In trade and commerce	In transport, storage and communications	In other services			
													PRIMARY SECTOR	SECONDARY SECTOR	TERTIARY OR SERVICE SECTOR
1901	(100)	100 (46.61)	(53.39)	50.64 (23.61)	16.89 (7.87)	4.33 (2.01)	—	11.73 (5.47)	0.78 (0.36)	6.05 (2.82)	1.12 (0.53)	8.46 (3.94)			
1911	(100)	100 (48.07)	(51.93)	49.49 (23.94)	20.57 (9.88)	4.74 (2.80)	—	9.93 (4.77)	0.96 (0.46)	5.51 (2.65)	1.12 (0.54)	7.38 (3.55)			
1921	(100)	100 (46.92)	(53.08)	54.39 (25.52)	17.40 (8.16)	4.48 (2.10)	—	9.29 (4.36)	0.84 (0.40)	5.73 (2.69)	0.94 (0.44)	6.93 (3.25)			
1931	(100)	100 (43.30)	(56.70)	45.04 (19.51)	24.79 (10.73)	5.18 (2.24)	—	8.91 (3.86)	1.04 (0.45)	5.59 (2.42)	1.08 (0.44)	8.42 (3.65)			
1951	(100)	100 (39.10)	(60.90)	50.02 (19.56)	19.72 (7.71)	2.95 (1.15)	—	9.00 (3.52)	1.05 (0.41)	5.24 (2.05)	1.53 (0.64)	10.49 (4.10)			
1961	(100)	100 (42.98)	(57.02)	52.82 (22.70)	16.71 (7.18)	2.75 (1.18)	6.39 (2.74)	4.22 (1.82)	1.09 (0.47)	4.05 (1.74)	1.59 (0.69)	10.38 (4.46)			

Note: Figures in brackets indicate percentage distribution of population into workers and non-workers classified by broad occupation.

Source: A note on the working force Estimate 1901-1961, B.R. Kabra. *Final Population Tables Paper No. 1, 1962*

TABLE 3

Percentage Distribution of Gainfully Employed Persons by Principal Industry Group and Activity Status, 1959-1960

Rural: All-India (All persons)
Activity status

Industry group	Employees	Employers	Own account workers	Unpaid family enterprise workers	Total
Agriculture, Fishing, Forestry, Livestock and hunting	72.17	92.47	77.50	89.32	79.62
Mining and Quarrying	3.37	—	0.09	0.01	0.98
Manufacturing	5.39	3.04	10.16	6.39	7.65
Construction	5.01	0.62	0.83	0.34	1.85
Electricity, Gas, Water and Sanitary Sources	0.34	—	0.13	0.84	0.16
Trade and Commerce	1.16	1.78	5.50	1.84	3.17
Transport, Storage and Communications	1.94	0.47	0.79	0.07	0.90
Sources	8.70	0.33	2.75	1.68	4.7
Industries not adequately described	1.30	0.33	0.58	0.18	0.66
Not recorded	0.62	0.96	1.67	0.17	0.94
Total	100	100	100	100	100

Source : N. S. S. Fifteenth Round Report.

TABLE 4
Percentage Distribution of Gainfully Employed Persons by Principal Occupation Group and Activity Status, 1959-1960
 Rural: All-India (All persons)
 Activity status

Occupation group	Employees	Employers	Own account workers	Unpaid family enterprise workers	Total
Professional, technical and Executive	76.71	1.13	19.21	2.95	100
Distributive and financial operations	7.67	0.77	75.01	16.55	100
Agriculture, animal husbandry etc.	25.89	1.62	38.79	33.70	100
Miners, quarrymen, and related workers	98.05	—	1.95	—	100
Transport and communication workers	73.29	—	26.59	0.12	100
Crafts and production process	27.83	0.33	51.95	19.89	100
Service occupation	46.17	—	33.24	20.59	100
Occupation n.e.c.	40.18	2.20	51.82	5.70	100
Not recorded	22.94	0.93	65.98	10.15	100
Total	27.74	1.43	40.27	30.56	100

TABLE 5

Percentage Distribution of Gainfully Employed Persons by Occupation Group and Activity Status, Urban All India 1959-1960

Urban
Persons of each activity status

Occupation group	Activity Status				
	Employee	Employer	Own a/c workers	Unpaid family enterprise workers	Total
Professional, technical & related workers	7.15	2.34	4.71	0.15	5.41
Administrative, executive & managerial, clerical and related workers	17.11	25.91	2.46	2.68	10.43
Distributive and financial service occupations	5.67	25.56	24.49	19.51	14.27
Workers engaged in agriculture, animal husbandry, forestry, fishing and hunting	9.15	31.42	19.95	34.42	16.23
Crafts and production process	26.10	11.02	33.39	33.11	29.22
Domestic and personal services	13.75	—	4.65	7.41	9.56

TABLE 6

*Percentage Distribution of Gainfully Employed Persons by
Industry Group and Activity Status 1959-60*

Basis: Persons of each activity status. Urban—All India

Sl. No.	Industry group	Employee	Employer	Own account worker	Unpaid family enter- prise worker	Total
1	2	3	4	5	6	7
1.	Agriculture and Live-stock	8.16	28.37	17.34	32.27	14.50
2.	Plantation	0.06	—	—	—	0.03
3.	Forestry, Fishing & Hunting	0.23	—	1.98	0.95	0.93
4.	Mining and Quarrying	0.79	—	0.14	0.29	0.49
5.	Food, Beverage and Tobacco	4.58	7.03	8.12	8.63	6.34
6.	Cotton Textile	7.57	3.52	5.89	12.44	7.45
7.	Other Textiles	3.80	3.17	2.89	2.39	3.42
8.	Production of Textile Garment	0.61	1.52	3.42	1.41	1.72
9.	Paper and Paper products	0.37	0.47	0.09	0.15	0.25
10.	Printing and Publishing	1.01	1.17	0.19	0.26	0.63
11.	Manufacturer of Leather and Leather products	0.69	0.47	1.72	1.28	1.12
12.	Manufacturer of Chemical and Chemical production	2.49	2.35	0.58	0.44	1.58
13.	Manufacturer of Basic Metal and other products	1.76	1.64	1.64	1.30	1.66
14.	Non-metalic Mineral products	1.05	0.23	0.82	1.46	1.00
15.	Machinery and other Trans- port Equipment	2.53	2.58	0.81	0.29	1.67
16.	Other Manufacturing Industry	2.09	5.51	6.79	5.49	4.21
17.	Construction	4.20	2.35	3.19	0.16	3.55
18.	Electricity, Gas, Water and Sanitary	0.87	—	0.26	0.22	0.56
19.	Whole-sale Trade in Cereals and Pulses	0.71	0.47	1.12	0.33	0.81

1	2	3	4	5	6	7
20.	Whole-sale Trade in other products	1.84	6.33	1.31	0.84	1.62
21.	Retail Trading in Cereals and Pulses etc.	2.59	6.57	12.95	10.60	7.25
22.	Retail Trading	3.39	11.96	7.74	5.33	5.31
23.	Organised Transport	5.55	—	0.36	0.04	2.98
24.	Transport Services (Trams and Motor Vehs.)	2.40	2.11	0.62	0.15	1.58
25.	Un-organised Transport	0.89	0.47	5.35	0.40	2.41
26.	Storage Communication	1.17	—	—	—	0.60
27.	Public Services	16.05	0.23	0.14	0.07	8.31
28.	Educational Services	4.91	0.23	0.24	—	2.61
29.	Medical and Health Services	2.19	2.11	1.45	0.15	1.69
30.	Personal Services	2.83	3.75	5.40	8.32	4.38
31.	Services render to H. H. by domestic services, cook etc.	6.86	—	—	—	3.53
32.	Other Services	2.79	1.17	3.37	0.09	2.66
33.	Industry not specified elsewhere	1.94	—	2.39	0.40	1.89
34.	Not recorded	1.03	4.22	1.69	2.85	1.53
TOTAL:		100.00	100.00	100.00	100.00	100.00

NOTES AND REFERENCES

1. This is to be noted that Census Department has recently issued a Handbook giving distribution of labour force by occupation for 1961.
2. Colin Clark, *The Conditions of Economic Progress*, p. 487.
3. W. Malenbaum, *Prospects for Indian Development*, pp. 31, 32.
4. Proportion of labour force engaged in primary sector has remained more or less static during this period.
5. G. L. Bansal, *Industrial Development in India*, Ministry of Commerce and Industries, India, 1958, p. 67.

SUNIL K. SEN

Trends in the Growth of Manufacturing Industries, 1858-1922

IT HAS been a constant theme of economic historians that India's handicrafts which had attained an advanced level of development in the past had decayed and were decaying, along with the centres of production, in the nineteenth century. Yet it was not the only noteworthy event. It is undeniable that capitalist industry had shown a quite remarkable development during the second half of the nineteenth century. Although capitalist industry remained concentrated in some regions, the development of large-scale industries represented a shift in the economic situation. The growth of coal industry, iron and steel industry, and the engineering industry, though these were yet in the initial phase of development, laid the basis of India's industrial advance. In this paper we shall try to indicate some of the major trends in the growth of India's large-scale industries between 1858 and 1922. We shall concentrate on iron and steel and engineering industries, and deal, cursorily and in passing, with the growth of coal, cotton, jute and other industries.

The period witnessed the growth of investment activity, and there was the development of a new type of business organization—the joint stock company. Limited liability was introduced in India in 1857, and joint stock enterprise received a great stimulus. Liability of the investors was limited; small capitals could be mobilised; shares could be transferred; several types of shares could be issued to appeal to different classes of investors. The following table illustrates the growth of joint stock companies during this period. The number of joint stock companies which were at work in India in 1880-81 was 475 with a paid-up capital of Rs. 14.86 crore; in 1897-98 the number was 1572 with a paid-up capital of Rs. 32.12 crore. Under the impact of the

swadeshi Indian capital flowed in cotton and iron and steel industries. The number of joint stock companies in 1910-11 was 2251 with a paid-up capital of about 64 crore. Then came the War, and Indian industries made fabulous profits. Between 1913 and 1923 there was a three-fold increase in the paid-up capital of Indian joint stock companies. The increase was impressive, but a large number of the companies carried on trade, insurance, and banking. It may be noted that several Indian groups, notably the Marwaris, invested their capital mainly in trade and banking.

Joint Stock Companies¹

Year	Companies at work	Paid-up capital in crore Rs.
1884-85	694	20.63
1899-1900	1340	35.43
1903-04	1489	39.71
1913-14	2744	76.60
1922-23	5211	265.30

Apart from Indian joint stock companies, there was another category of companies which were incorporated in England. The momentum of foreign investment was sustained by these companies whose sole beneficiaries were British investors. The railway companies that undertook railway building in India were incorporated in England. The Government of India prepared a provisional list of sterling companies in 1904. The list shows that 63 sterling companies were at work in India in 1904 ; these companies were registered between 1874 and 1903. Of these 30 were tea companies, 10 gold-mining companies, 11 railway companies. There was only one iron and steel company—the Bengal Iron and Steel Co. with a paid-up capital of £ 190,490 in 1902.² It seems that tea, coal, gold-mining, railway, and tramways were the favourite objects of British capital. The Calcutta Tramways Co., Calcutta Electric Supply Corporation, East India Coal Co. reached substantial size in the subsequent period.

It is commonplace that the large majority of India's large-scale industries were foreign-owned and foreign-financed, and also frequently staffed by foreign technical personnel. Foreign capital was mainly invested in export-oriented industries, and foreign firms repatriated their enormous profits outside India. What was, however, new in the economic situation was the growth of the engineering industry and iron and steel industry that depended, in the initial phase, on the internal market, and opened up new vistas of India's

industrialization. The establishment of a modern steel mill in India marked the beginning of a heavy industrial base.

It was public investment in railways and roads and bridges, buildings and military barracks which stimulated the growth of the Indian engineering industry in the face of severe foreign competition. The engineering firms undertook the manufacture of wagons, bridges, points and crossings, signal posts, road rollers, trollies, sluice gates, cranes. Burn and Jessop specialised in the manufacture of railway equipment and wagons; Martin achieved considerable success in building light railways, water works, and drainage systems; Richardson and Cruddas, founded in 1858, concentrated on the construction of bridges and military barracks. Apart from the Government, the Port Trusts and Municipalities obtained a large portion of their supplies from the Indian firms. The number of Indian engineering firms approved by the Government was only 14 in 1897; the number rose to 41 in 1913. The industry was concentrated in Bengal and Bombay which accounted for 26 firms. The capital sunk in the industry exceeded £3.5 million in 1912; the number of workers employed was about 35,000.³ Surely the Indian engineering industry was developing but slowly; it remained confined to the fabrication of medium and light structures. The Indian Industrial Commission (1916-18) drew pointed attention to the very large value of the imports of machinery, boilers, primemovers, sewing machines, tea machinery and other articles.⁴ We shall presently refer to the problems faced by the engineering industry during the War when retrenchment finance became the watchword of Government policy.

It was during the *swadeshi* period that the Tata Iron and Steel Co. was founded; the primary impulse was to supply the needs of railways. Mr. Harris has told us that the entire capital (£16,30,000) was subscribed by 8,000 Indians. The TISCO was registered in 1907 with a nominal capital of Rs. 2,31,75,000 divided into 200,000, ordinary shares of Rs. 75 each, 50,000 preference shares of Rs. 150 each, and 22,500 deferred shares of Rs. 50 each.⁵ Tata Sons and Co. were appointed managing agents. Thus the promoters themselves became managing agents. On the Board of Directors were represented India's top-most business-men: Sassoon David, Cowasjee Jehangir, V. C. Thakersay, Fazulbhoy Currimbhoy, M. N. Goculdas, A. J. Bilmoria.⁶

It seems that capital scarcity did not prove to be a hindrance to TISCO's growth. As the TISCO fulfilled contracts for State railways, its prestige rose high, and the Company was successful in later years in raising capital by issuing shares and debentures in India. During the first working period (up to June, 1913) a profit of Rs. 8,58,583 was made; the number of employees rose from 4,235 in 1910 to about 9000 in 1913.⁷ T. W. Tutwiller, the American manager of the Company, reported before the Industrial Commission that Indian workers, who came from the agricultural classes, shaped well when

properly trained, and were employed as heaters in the mills, moulders in the blast furnaces, foremen on the coke ovens, crane drivers, rollers in the blooming and bar mills. Tutwiller hoped that "Indians will be able to replace Europeans up to a certain point".⁸

The entrepreneurial ability of the Tatas must not be minimised, but it seems that the government guarantee to purchase 20,000 tons of rails annually stood the nascent industry in good stead. Understandably, the Tatas acknowledged in gratitude "the very generous concessions to our enterprise". Apart from State railways, the Company managed railways and the engineering firms of Calcutta and Bombay were their customers. The War came in 1914, and it "poured money into their coffers".

Unlike the TISCO which was assured of Government purchase of its products, the cotton-mill industry which was financed mainly by Indian capital, had to advance in the face of foreign competition and the notorious Cotton Excise. It seems that the cotton-mill industry concentrated in the initial phase on the export of yarn, and the large market in China stood it in good stead. In the 1880's Japan entered the field and Indian yarn was gradually driven away from China and Korea; the average price of yarn was lower in Japan. Faced with Japanese competition the Indian industry shifted its focus to cloth production. Hence began the orientation of the Indian cotton-mill industry to the home market, and the production of cloth gradually made progress. In the 1890's there was considerable expansion of the industry; the number of cotton mills rose from 68 in 1883-84 to 167 in 1898-99. The *swadeshi* movement gave a stimulus to the industry which continued to advance; the number of cotton mills rose from 191 in 1900-01 to 261 in 1911. People learnt to hate the Cotton Excise, and the Bombay and Ahmedabad mill owners appeared to them as martyrs. The structural defect of the Bombay and Ahmedabad cotton mills which was revealed in the managing agency system did not grip public attention. A Japanese author has noted this weakness of the Bombay mills which were "largely in the hands of managing agents, who were apt to be more interested in speculative company promotion and quick commercial profits than in long-term industrial development".

The War came in 1914. Foreign competition was temporarily withdrawn. The Government became a big purchaser of Indian goods. In fact, Government purchase stimulated the growth of Indian industries, specially after the relaxation of the stores purchase rules in 1913 and 1922. We shall try to examine the impact of Government purchase on the growth of Indian industries.

The cotton mills experienced "unparalleled prosperity". It was impossible to obtain imports from Lancashire, and Indian mills received large government orders yielding a fixed percentage of profits. The returns indicate that government purchase of cotton goods steadily increased in the war year.⁹

Year	Value Rs.
1914-15	13,20,815
1916-17	15,39,068
1917-18	21,51,383
1918-19	29,96,245
1919-20	26,42,020
1920-21	36,21,371

The number of cotton mills was 264 in 1913-14; in 1919-20 the number was 253. Although the mills obtained colossal profits, there could not be substantial expansion of the industry owing to the difficulty of obtaining machinery. There was considerable extension of the industry between 1921 and 1923, Then began a period of severe depression, and the Bombay Mill Owners' Association sought government assistance.

The war gave an impetus to the jute industry which supplied an enormous demand for sandbags, tarpaulins, and a variety of jute products. There was large government purchase.¹⁰ The number of mills increased from 60 in 1913-14 to 74 in 1916-17 and to 76 in 1918-19; the paid-up capital rose from Rs. 79.3 million in 1914-15 to Rs. 106.4 million in 1918-19.¹¹ In the immediate post-war years boom conditions continued; a recession came in 1921-22.

The paper mills and woollen mills were also the beneficiaries of government purchase. The value of government purchase of Indian paper and paste-board rose from Rs. 3.7 million in 1915-16 to 7.7 million in 1917-18, and Rs. 93 million in 1918-19.¹² In their evidence before the Industrial Commission the Bengal Paper Mills noted that government purchase over the years had been "vital to their existence". Some of the Indian Woollen mills were employed to their fullest capacity in supplying government orders; the value of woollen goods purchased by the government was Rs. 1.4 million in 1913-14, Rs. 0.98 million in 1917-18, 0.94 million in 1918-19, and 8.4 million in 1919-20.¹³

As industrial activity increased and British coal supplies were cut off, there was a rise in coal prices; average prices per ton increased from Rs. 3.8 as in 1913 to Rs. 4.8 as in 1919; and production increased from 16,464,263 tons in 1914 to 22,628,037 tons in 1919.¹⁴ The railways continued to be the single largest consumer of coal; there was a marked increase in the consumption of coal in cotton mills, jute mills, iron and steel industry, and in iron works. The number of joint stock coal companies rose from 128 in 1909 to 288 in 1922.

The war created an enormous demand for munitions, and the Tatas eagerly seized the opportunity and undertook the manufacture of steel shell, so much that 75 per cent of their output consisted of steel shells,¹⁵ and this entire output was obtained by the Munitions Board. The out-put of the steel increased by about 50 per cent in 1916. The company supplied the demand of the Munitions Department, railways, and of engineering firms, and also exported considerable quantities of pig iron to Japan.¹⁶ Encouraged by their success the Tatas wanted to carry out extensions, and approached the government for a "running contract" for the supply of steel manufactures at fixed prices.¹⁷ The government raised the bogey of "monopoly", and argued that the "running contract" would encourage "systematic under-tendering" and "stifle competition among Indian firms".¹⁸ As the government rejected the proposal, the Tatas abandoned the projected extensions which did not in fact begin until 1926. Nevertheless, the Company made handsome profits ; and the paid-up capital increased from Rs. 23.17 million in 1912-13 to Rs. 94.68 million in 1921-22.¹⁹

It is apparently a paradox that the war did not lead to an expansion of the engineering industry. Centered on railways the engineering industry was faced with a depression when the government, under the exigencies of war finance, drastically reduced capital expenditure on railways. It was the main contention of the engineering firms that the depression was the result of a "considerable falling off in Government orders". Some of the engineering firms curtailed production and retrenched workers. Burn discharged workers, and their average monthly wages showed a reduction of Rs. 76,000 in 1915.²⁰ The Indian Engineering Association wrote a panicky letter to the Government in February 1915 : one firm reduced its establishment ; another discharged 1300 workers ; another reduced their staff by 30 per cent. The Association pleaded against curtailment of public expenditure on railways and public works.²¹ The Government expressed their inability to help any local firm that could not undertake "the manufacture of munitions of war".²²

Over the years the engineering industry had depended on government orders. Between 1901 and 1912 the approximate value of government orders of wagons was Rs. 1,42,84,577.²³ The following figures taken from the returns indicate that the value of government orders of wagons and building materials did not increase appreciably during the War ; there was a marked decrease in government purchase of bridge work.²⁴

The engineering firms found it extremely difficult to import raw material and machinery from England. The Government of India set up Priority Committees to deal with applications for the supply of machinery, and these committees were instructed "to stiffen their backs in dealing with applications".²⁵ The Indian firms, therefore, concentrated on maintaining continuity

in operations, and could not undertake extensions.

	1915-16 Rs.	1916-17 Rs.	1917-18 Rs.	1918-19 Rs.
Bridge Work	2,83,369	1,49,650	12,746	28,969
Wagons	6,48,556	2,46,842	22,80,044	47,35,717
Building and Stations materials	8,29,818	7,90,419	6,16,629	7,61,505

It seems that the prospects of the engineering industry improved after the war. Although retrenchment finance was the keynote of Government policy, there was a considerable increase in capital expenditure on railways in the immediate post-war years ; it increased from £1.9 million in 1916-17 to £9.3 million in 1919-20, and to £17.3 million in 1920-21. In 1922 three new firms, Braithwate, Britannia, Turnbolls, were included in the list of Government approved firms.²⁶ As the Government was the largest buyer of structural steel work, the engineering firms had to depend on Government orders. It was not fortitudinous that the Indian Engineering Association memorialised the Government for large public investment in railways and public works, and for relaxation of the stores purchase rules.

There was another significant development during the second half of the 19th century : participation of the Government in industrial activity. The Government was wedded to the *laissez faire* policy. It seems, however, that *laissez faire* was a dogma rather than a fact ; it was a dogma which very often conflicted with reality. The Government had to participate, in varying degrees, in a variety of undertakings. It was in the second half of the nineteenth century that the Government founded and operated railway workshops, canal workshops, coal mines, postal workshops, harness and saddlery factories, army clothing factories, ordnance factories.²⁷ We shall concentrate on railway workshops and ordnance factories whose potential in accelerating India's industrial growth was to become evident as time went on.

The railway workshops were founded by the Government and the railway companies. In 1905 there were 96 railway workshops ; the number of persons employed was 79,082.²⁸ The Jamalpur Workshops of EIR, the Parel workshops of BBCIR, the Lahore Workshops of NWR, the Kanchrapara Workshops of EBR grew to a substantial size. These workshops mainly undertook railway carriage building and repair. In fact, railway carriage building developed into an important industry. By 1890 the Jamalpur workshops were "making its own cast-iron sleepers, rolling its own scraps, making its own

bolts and nuts”.²⁹ In 1898 two blast furnances and a rolling mill were erected, and the Jamalpur workshops undertook steel production in 1901.³⁰ Thus the railway workshops, as the Industrial Commission noted, represented “by far the most important development of mechanical engineering in India”.³¹

In view of the rapidly rising exenditure on railway stores (which India had to pay for in sterling), the great importance of these workshops cannot be doubted. Sir A. Rendel, Consulting Engineer of the India Office made an illuminating suggestion in 1907. He urged the construction of locomotives, rolling stock, permanent way material and other railway plant in the railway workshops. This would “free India from the disastrous effect, on her railway finance, of the high prices which sometimes prevail in England”. If private firms were encouraged, the bulk of the advantage would go to “English capital invested in manufactures in India rather than to Indian railways and the Indian labour”.³²

Rendel’s proposal of developing these workshops in the direction of self-sufficiency was rejected by the Government which did not want to encourage state enterprise “in the present political condition”.³³ In fact, manufacture of locomotives in the public sector has begun only after independence. As the table below indicates, India continued to incur enormous expenditure to import railway stores which were supplied by the “Home Manufacturers”, and there was a formidable increase in sterling debt due to railways. Although capital expenditure on railways was considerable, the total capital outlay on railway workshops down to the end of 1923-24 was about Rs. 12 crores.³⁴ It seems that retrenchment finance acted as a brake on the growth of the railway workshops.

*Stores for State Railways*³⁵

Year		Value in £
1883-1884	..	761,543
1884-1885	..	837,072
1885-1886	..	1,776,592
1886-1887	..	1,077,740
....
1900-1901	..	639,330
1901-1902	..	843,814
1902-1903	..	1,281,099
1903-1904	..	1,236,500
1904-1905	..	1,482,667
1905-1906	..	2,035,017

Year		Value in £
1906-1907	..	2,238,858
....
1908-1909	..	3,308,395
1909-1910	..	2,080,376
1910-1911	..	1,846,287
1911-1912	..	2,124,053
1912-1913	..	2,422,112
1913-1914	..	2,974,364

Some of the large ordnance factories were founded in the first half of the nineteenth century. There were 13 Arms and Ammunition Factories in 1905; the number of persons employed was 12,958.³⁶ It was at the Cossipore factory that production of steel was first undertaken in India. Mahon, the then Superintendent of the factory, wrote in 1901 that the factory "is already engaged in rolling steel of many sections".³⁷ The Ishapore (Ichapore) factory started the manufacture of rifles in 1907; the number of employees was 2050 in 1911.³⁸

Evidently India's defence industry remained weak, and India had to undertake considerable expenditure to import ordnance stores which were obtained from British armament manufactures. In fact, the value of ordnance stores represented a major portion of the total value of stores imported in India.³⁹ It was during the war that extensions were carried out in the ordnance factories; a new factory for the manufacture of acetone was started at Nasik. There is an element of truth in the contention that the needs of defence compelled the Government to take initiative in industrial activity.

After the war the Government was faced with the problem of using the "surplus energies" of the ordnance factories. The Stores Purchase Committee (1920) recommended the policy of distributing work to private firms "to the extent found practicable without loss of efficiency". But the sharing of orders with private firms posed some problems. During peace time there was "lack of employment for the permanent supervising staff", and hence any reduction in the level of production would necessitate reduction of the staff. Secondly, any sharing of work with private firms "reduces the volume of work over which the irreducible over-head charges can be spread".⁴⁰

E. Burdon of the Ordnance Department suggested means of obviating the difficulties of ordnance factories in peace time. The ordnance factories should utilise "the surplus energies" by undertaking the manufacture of articles for railways and other spending departments. The productive capacity of these factories

should not lie idle ; the Government should endeavour "to keep the ordnance factories working at a normal pace". The factories could also take on "outside work" ; the objective should be "to keep the extra machinery in working order", to train and keep in employment "a reserve of men", and to "minimise the economic disadvantages of maintaining in peace time a margin which is only required for purely military purpose in time of war".⁴¹

The Government rejected Burdon's proposals, and the Industries Department issued a note directing that the ordnance factories were not to undertake manufacture "of a character essentially different from that normally done in the factories".⁴² Thus the productive capacity of the ordnance factories remained unutilised, and India continued to be a good market of ordnance stores. It was after independence that India embarked on developing the ordnance factories in the direction of self-sufficiency in the face of stubborn opposition of vested interests.

Thus India remained overwhelmingly dependent on foreign imports of a wide range of engineering goods and of machinery ; and there was no appreciable decrease in the value of stores imported through the India Office even after the relaxation of the stores rules in 1922. Surely India's industrial development was taking place slowly and in a lop-sided fashion. Factory industries in parts of Bengal, Bihar, Bombay, Ahmedabad, Cawnpore, Madras looked like industrial "islands" in a vast agricultural sea. There was considerable investment of foreign capital. Yet India's economic growth was slow. It seems that foreign capital had a tendency to concentrate on export-oriented industries and shy away from iron and steel industry.

Nurkse tried to explain the inhibitions of British capital in terms of a market limitation caused by "the poverty of consumers". But this explanation is refuted by the remarkable expansion of Tata's steel industry. Surely the market for iron and steel and engineering goods was large and growing when railways and bridges, ports and docks were being built. But tangible market demand already existing or visibly coming into existence could not provide any inducement to British capital to undertake the heavy capital expenditure which the manufacture of iron and steel entailed.

It is also difficult to explain the inhibitions of Indian entrepreneurship in the light of the familiar nationalist criticism of Government policy. Despite Cotton Excise the cotton textile industry grew to a substantial size. The stores rules were relaxed, and it was the beneficiary of Government purchase. Since its inception the Tata Iron and Steel Co. received the stimulus of Government purchase. Furthermore, it was granted protection in 1924. The fact cannot be denied that the Indian *bourgeoisie* had accumulated capital, but trade and banking and land remained their favourite fields of investment. It seems, therefore, that one should search for deeper explanations of the weakness of Indian entrepreneurship.

NOTES AND REFERENCES

1. *Statistics and Commerce*, Nov. 1898, Sep. 1904. Also N. Das, *Industrial Enterprise in India*, p. 137. Dr. Das states that a high mortality rate prevailed in India, so that thousands of investors were ruined.
2. *Statistics and Commerce*, June 1904.
3. For a fuller discussion, see the author's *Studies in Industrial Policy and Development of India*, 1858-1914, pp. 75, 88-90, 96. The Report of the Stores Committee (1906) described Burn, Jessop, and Richardson and Cruddas as "First class" firms; for the output of these firms see The Report of the Stores Committee (1906).
4. *Report of the Indian Industrial Commission*, 1916-18, p. 50.
5. Commerce and Industries, File No. 19, 1908.
6. *Annual Report of TISCO*, June 30, 1910.
7. *Seventh Report of TISCO*, 1912-13. Net profits in 1913-14 amounted to Rs. 22.6 lakhs. See the *Eighth Report*, 1913-14.
8. *Minutes of Evidence*, Vol. 2, Report of the Indian Industrial Commission, 1916-18, pp. 354-56.
9. Annual Returns submitted by the Government of India to the Secretaries of State will be found in the Financial Despatches of the Governors-General in Council.
10. The mills supplied to the Government 50 million of sandbags a month. See, *Summary of the Administration of Lord Hardinge*, 1916.
11. *Statistical Abstract*, 1913-14 to 1919-20.
12. See the Annual Returns.
13. *Ibid.*
14. C. W. E. Cotton, *Hand book of Commercial Information*, pp. 296-97. Some of the mines undertook extensions; electrical installations were set up, and the practice of coal cutting by machinery was extending.
15. Commerce and Industries Dept., Stores, November 1915.
16. Letter of Tata Sons and Co., April 28, 1916, *Ibid.*, September 1916.
17. *Ibid.*, March 1917.
18. *Ibid.*
19. Report of the Tariff Board, 1924. *Minutes of Evidence*, Vol. 1.
20. Letter from Burn and Co., April 14, 1915. Commerce and Industries Dept., Stores, 1915.
21. Letter from I. E. A., February 1915, *Ibid.*
22. *Ibid.*
23. See the Note of the Railway Board, May 20, 1912. Commerce Dept., Stores, June 1912.
24. Figures have been collected from the Returns.
25. Note of Sir H. P. Burt, India Office, October 1916. C.D., Stores, 1917.
26. List of Government approved engineering firms will be found in Industries Dept., Stores, February 1922.
27. For a fuller account of the Government factories, see the author's *Studies in Economic Policy and Development of India*, 1848-1926, Ch. 5.
28. Parliamentary Papers, 94, 1907.

29. Fin. Despatch from, No. 3, January 1891.
30. *Coal and Iron*, September 1901, No. 3-7.
31. *Report of the Indian Industrial Commission*, 1916-18, pp. 25-26. Mr. A. C. Car, Chief Mechanical Engineer of BNR, noted that many of these workshops were equipped "with the most modern plant and machinery".
32. Memorandum by Sir A. Rendel, C.D., Stores, 1908.
33. C.D., Stores, April 1908.
34. Industries and Labour Dept, Stores, 1924. The Stores Purchase Committee (1920) recommended placing of railway contracts with private firms; the workshops were to be maintained "mainly for purpose of repair and experiments work".
35. Figures have been collected from the Accounts of the Home Treasury. Expenditure includes freight.
36. Parliamentary Papers, 94, 1907.
37. *Coal and Iron*, Nov. 1901, No. 1-6. Mahon deserves to be remembered as "the first steel expert" of India.
38. *24 Parganas District Gazetteer*, pp. 149-50.
39. The value of ordnance stores will be found in the Accounts of the Home Treasury.
40. *Report of the Stores Purchase Committee*, 1920, para 85.
41. Note of E. Burdon, March 1921, Industries Dept., Stores, 1921.
42. Note of the Industries Department, *Ibid.*

Trends in Employment
(in agriculture, cottage industries and crafts,
manufacturing industries and in tertiary sectors)

VICTOR S. D'SOUZA

Changing Socio-Economic Conditions and Employment of Women in India

THE PROBLEM

IT IS almost universally true that man is the natural breadwinner in the family. But the degree to which the woman contributes to the family income varies widely from society to society. The extent of participation by women in the working force in any society or community is, to a large extent, influenced by socio-cultural conditions. Therefore, changes in these conditions affect the working force participation more in the case of women than men.

According to the 1961 census 27.96 per cent of the female population was in the working force. But the percentage of working women varied widely from State to State and from community to community. For instance, among the States it ranged from 9.43 in West Bengal to 43.99 in Madhya Pradesh. An attempt is here made to suggest an explanation for this variation and to discern its underlying pattern.

The problem can be divided into two parts. The first refers to the variation in the rates of employment of women¹ among different broad cultural regions in the country and the second to the variation in the different communities of the same region. Different kinds of explanations are possible for the two types of variation. This paper, however, is limited to an examination of the second part of the problem. But before doing so it is necessary to call attention to the implication of the first part for an understanding of the second.

It may be assumed that regional variation in the rate of employment of women is due to certain broad cultural factors. Since these factors are common to a cultural region and different from region to region, the employ-

ment of women in the same region would be similarly affected and in different regions differently. As a result we would expect to find that the range of variation in the rate of employment of women would be smaller in the different parts of the same region than in the parts of different regions put together.

The State of Punjab before reorganization would serve as an interesting illustration. In 1966, three major political divisions besides the small centrally administered territory of Chandigarh, were carved out of the State on the basis of linguistic and hence cultural differences. The major divisions are (a) the Punjabi region comprising the present Punjab State, (b) the Hindi region comprising the Haryana State, and (c) the hill region included in Himachal Pradesh. The percentage distribution of workers in the female population in the various districts of the three regions is shown in Table 1. The data bring out in clear focus the cultural basis of participation of women in employment. While the percentage of workers in the female population in the State as a whole is 14.2, it varies widely from 2.9 in the district of Kapurthala to 68.9 in Lahaul and Spiti. But if we consider the regions separately we find that the range narrows down almost abruptly. It is still more interesting to note that except in the case of Ambala district in the Hindi region, the ranges in three regions do not at all overlap. Even the exceptional case proves the rule. The district of Ambala represents the meeting point of the Punjabi and Hindi regions in several respects. It contains Chandigarh, the State capital. One of its tehsils is predominantly Punjabi in linguistic and cultural orientation and has consequently been incorporated in the present State of Punjab. Hence the relatively too low a percentage of women workers in the Ambala district.

TABLE 1

Rate of Employment of Women and Percentage of Tertiary Occupations in the Three Cultural Regions of Punjab before Reorganization

Region and districts	Percentage of workers in female population	Percentage of total workers in secondary and tertiary occupations
<i>Punjabi Region</i>		
Ludhiana	3.6	55.4
Amritsar	3.2	52.8
Jullundur	4.0	56.9
Patiala	3.3	41.4

Kapurthala	2.9	44.3
Gurdaspur	3.7	50.5
Bhatinda	8.4	30.0
Ferozepur	9.6	32.7
Sangrur	11.7	27.1
Hoshiarpur	11.2	38.7

Hindi Region

Ambala	6.5	52.5
Karnal	12.1	33.2
Gurgaon	25.5	29.0
Hissar	26.7	20.0
Rohtak	28.7	28.2
Mohendragarh	27.1	18.4

Hill Region

Simla	30.6	52.1
Kangra	44.9	15.7
Lahaul and Spiti	68.9	31.7

<i>Punjab</i>	<i>14.2</i>	<i>35.1</i>
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For our present purpose the chief inference to be drawn from this regional variation is that in studying the variation in the employment of women in different communities such as cities, the cultural factors have to be held constant by limiting comparison to communities within the same region. Once the cultural influence has been held constant, it would be possible to find out the more general factors in the variation in the rate of employment of women applicable to all communities in different regions. We may now turn our attention to this aspect of the problem.

EXPLANATION

It is admitted on all hands that the explanation for the varying degree of participation by women in the working force cannot be found in economic terms alone. Part of the explanation would surely lie in the socio-cultural realm. We, therefore, propose to seek this explanation by examining the employment situation in India in the light of some relevant sociological premises.

The important sociological premise that we have to bear in mind is the proposition that in any social group as compared to other groups there is a tendency for the social status of members to form a consistent pattern. With

regard to the employment of women we are particularly concerned with status consistency within the family. Usually a person's status is derived from the prestige of his occupation and the status of the family members is derived from the prestige of the occupation of the earner in the family. So long as there is only one earner in the family, usually the head, there is no problem of status inconsistency. But when several members of the family, particularly the man and wife are the working force the problem crops up in all its complexity.

For the consistency of family status the different members in the working force should be employed in occupations of similar prestige. At the same time, in the case of husband and wife, since the wife's position in the family is subordinate to that of the husband, the occupational prestige of the wife should be slightly less than that of the husband's. Higher prestige on the part of the wife would undermine the authority of the husband in the family. Relatively too low a prestige would bring about status inconsistency in the family. Moreover, by social custom the wife has to live with the husband and so has to find a job in the community of residence of the husband while the husband himself is more free to take up a job wherever available. Thus the employment of women depends upon the balancing of several factors. Where a satisfactory balance cannot be struck, the women as a rule does not enter or withdraw from the working force.

We may next examine the employment of women in India in the light of these premises. Generally speaking, most of the women workers are engaged in unskilled jobs or occupations involving very little skill. These are occupations of the lowest prestige. While the majority of the male workers too are engaged in such occupations, their proportion in the male working force is much less than the corresponding proportion in the case of women.

Since striving for social prestige is one of the important concerns in social life, it can be easily realised that the women in the lowest occupations are driven to join the working force through sheer economic compulsion, either because the income of the head of the family who is usually a man, is insufficient for the barest necessities, or because she is the sole breadwinner in the family. Therefore, more often than not, whenever the male heads of families are in low paid unskilled jobs, their women too would be compelled to enter the working force for the sake of subsistence. Since both husband and wife are in occupations of similar prestige there is no problem of status inconsistency. The need for upholding the superior position of the husband in the family is taken care of by the generally prevailing practice of division of labour as between men and women and of paying relatively lower wages to women.

Hitherto, the education and training of women to fit them for jobs consistent with their status has been greatly neglected. There is usually a wide

gulf between the educational qualifications of husband and wife. Consequently, where the husband is holding a job of higher prestige by virtue of his training and qualifications his less qualified wife has fewer chances of securing a job consistent with family status than the wife of an unskilled labourer. This appears to be the main reason why the rate of employment of women is the highest in the category of heads of households in the occupations of the lowest prestige.

It, therefore, follows from the above that the extent of participation of women in working force in a community depends largely upon the proportion of jobs of lowest prestige. Larger the proportion of occupations of the lowest prestige the higher is the rate of employment of women. On the other hand the proportion of jobs of the lower prestige depends upon the stage of socio-economic development of the community. It is very well known that as the socio-economic conditions of a community improve its occupational structure undergoes a change in such a way that the proportion of occupations of higher prestige expands at the expense of the proportion of jobs of lower prestige. We may, therefore, deduce that the greater the socio-economic development of a community, the lower is the rate of employment of women.

This trend, however, is opposed by another contrary trend which is now acquiring significant proportions. Our hypothesis that with the improved socio-economic conditions in a community the rate of employment of women declines, holds good if there is a wide difference between the educational qualifications of husbands and wives. But in recent times countrywide steps have been taken for a rapid advancement in the educational background of women. As a result, the gulf between the educational qualifications of husbands and wives is narrowing down and the chances of wives entering the working force at higher occupational level consistent with the higher social status of their husbands are improving. Hence the new trend for women to enter the working force at higher occupational levels.

In any region both these trends, namely, the reduction in the proportion of women workers at the lowest occupational level and its increase at higher occupational levels, would be in operation. Accordingly, the rate of employment of women in any community would be the resultant of these two contrary trends. In regions where the rate of employment of women is relatively high, due hitherto mainly to the heavier concentration of workers in the lowest occupations, the decline in number of workers at the lowest occupational level is likely to be greater than the increase in their number at higher occupational levels. Thus there would be a net decline in the total rate of employment of women. On the other hand, where the rate of employment of women is already low due to their relatively lower proportion at the lowest occupational level, the scope for further decline at the lowest level is limited. Therefore, the increase in the number of women workers at

the higher occupational levels would tend to be greater than the decrease in their number at the lowest level, resulting in a net increase in the total rate of employment of women.

Our explanation about the variation of rate of employment of women therefore boils down to two major hypotheses : (a) In regions where the rate of employment of women is relatively high, with the socio-economic development of the community the rate would tend to decline. (b) In regions where the rate is relatively low, with the socio-economic development of the community the rate would tend to increase. Where the regional rate is just about the average, the decrease or increase in the community's rate would be relatively lower.

VERIFICATION

For the demonstration of our hypotheses two important measures are necessary. These are the rates of employment of women and the measures or indices of socio-economic development in communities. While the rates of employment of women are readily available from the census data, we are not so fortunate in having adequate indices of socio-economic development. Therefore, we have to be satisfied with a coarse index of socio-economic development and accordingly the percentage of persons in the working force following the tertiary occupations has been adopted to serve the purpose. It is very well known that as a community develops socio-economically the proportion of tertiary occupations expands at the expense of the proportions of secondary and primary occupations. It is clear that with the expansion of the proportion of tertiary occupations the proportion of occupations of the lowest prestige would decline. We should therefore, find that in communities of the same region, the rate of employment of women and the percentage of persons in the working force engaged in tertiary occupations are negatively correlated if the regional rate of employment of women is relatively high. The higher the percentage of tertiary occupations the lower is the rate of employment of women.

However, since the percentage of tertiary occupations is only a coarse index of socio-economic development we must be prepared for encountering discrepancies. For instance, in some of the communities which are noted for the location of manufacturing industries, the socio-economic development may be actually higher than what is indicated by the percentage of tertiary occupations. These communities will have a relatively higher proportion of secondary occupations with a very low proportion of occupations of the lowest prestige. In such communities, therefore, the rate of employment of women would be lower than what is expected from a consideration of the percentage of tertiary occupations alone.

It has not been possible to present here a thorough systematic analysis of

factual data in support of our hypotheses. But different pieces of evidence have been brought together in an attempt to convince the reader. For the sake of convenience we have restricted our illustrative material to data from the 1961 Census.

First of all, it may be pointed out that in every State the rate of employment of women is invariably higher in the rural areas than in the urban ones. If it is considered that the percentage of tertiary occupations and hence the socio-economic development are always lower in the rural areas than the urban ones, this evidence is clearly in support of our hypothesis (a). The difference between the percentages of tertiary occupations in the rural and urban areas is so vast that the rates of employment of women in the urban areas have to be lower.

Secondly, turning back to Table 1, we find that in different cultural regions of the erstwhile State of Punjab, broadly speaking, the districts with higher percentages of secondary and tertiary² occupations have lower rates of employment of women. In the Punjabi region, with regard to the percentage of women workers in the female population (rate of employment of women), the districts fall into two sharply distinguishable categories. The first category would consist of the districts of Ludhiana, Amritsar, Jullundur, Patiala, Kapurthala and Gurdaspur with employment rates ranging from 2.9 to 4.0. The districts of Bhatinda, Ferozepur, Sangrur and Hoshiarpur with employment rates ranging from 8.4 to 11.7 would fall in the other category. And it is interesting to note that just as the ranges of rates of employment of women in the two categories do not overlap, the ranges of variation in the percentages of secondary and tertiary occupations too in the two categories do not overlap. The range of variation in the percentage of secondary and tertiary occupations in the districts of the first category is from 41.4 to 56.9 and that in the second category is from 27.1 to 38.7.

A similar pattern can be seen in the Hindi region too, if we divide the districts into three categories: 1) Ambala, 2) Karnal and 3) Gurgaon, Hissar, Rohtak and Mohendragarh. In the hill region the district of Lahaul and Spiti presents some discrepancy. But this district forms socio-culturally a distinct area from the other two districts.

Third and last of all we may consider a little more elaborate evidence pertaining to large communities all over the country. These communities include cities with population over one hundred thousand. In trying to show the relationship between the percentage of tertiary occupations and the rate of employment of women, the cities in Table 2 have been classified under each State with a view to keeping the cultural effect constant as far as possible. Therefore, the relationship has to be seen in each State separately. For obvious reasons, States with two or less cities have been excluded.

TABLE 2
Percentage of Tertiary Occupations in Total Working Force and Percentage of Workers in Female Population in Cities over One Lakh Population in Different States of India

Name of state	Name of city	Population of city	Percentage of tertiary occupations	Rank of city in descending order of percentage of tertiary occupations	Percentage of workers in female population	Rank of city in ascending order of percentage of female workers
Andhra Pradesh	Hyderabad	1,251,119	73.4	2	11.3	5
	Vijaywada	230,397	69.8	3	10.5	2
	Guntur	187,122	53.9	10	22.0	11
	Visakhapatnam	182,004	76.1	1	8.8	1
	Warangal	156,106	51.0	11	19.8	10
	Rajamundry	130,002	67.5	5	11.6	6
	Kakinada	122,865	68.6	4	10.5	3
	Eluru	108,321	57.3	8	17.4	8
	Nellore	106,776	65.6	6	12.4	7
	Bandar	101,417	60.3	7	10.7	4
Bihar	Kurnool	100,815	55.9	9	18.6	9
	Patna	364,594	69.4	2	8.3	4
	Jamshedpur	328,044	34.7	9	8.0	3
	Dhanbad	200,618	39.0	8	11.7	9
	Gaya	151,105	63.7	4	10.2	7
	Monghyr-					
	Jamalpur	146,807	50.5	7	6.9	2
	Bhagalpur	143,850	57.4	6	9.7	6
	Ranchi	140,253	66.3	3	8.5	5
	Muzaffarpur	109,048	74.2	1	6.0	1
Gujarat	Darbhanga	103,016	63.1	5	10.4	8
	Ahmedabad	1,206,001	43.6	6	5.5	1
	Baroda	298,398	61.2	4	6.1	3
	Surat	288,026	44.0	5	10.4	6
	Rajkot	194,145	64.1	2	6.7	5
	Bhavnagar	176,473	62.9	3	5.6	2
	Jamnagar	148,572	65.3	1	6.6	4

continued...

Name of state	Name of city	Population of city	Percentage of tertiary occupations	Rank of city in descending order of percentage of tertiary occupations	Percentage of workers in female population	Rank of city in ascending order of percentage of female workers
Kerala	Cochin	313,030	75.1	1	9.8	2
	Trivandrum	302,214	73.1	2	12.1	3
	Calicut	248,548	64.8	3	8.9	1
	Alleppey	138,834	55.0	4	12.2	4
	Nagercoil	106,207	49.6	5	14.8	5
Madhya Pradesh	Indore	394,941	54.4	2	6.6	2
	Jabalpur	367,014	56.3	1	10.5	5
	Gwalior	300,598	53.3	4	5.6	1
	Bhopal	222,948	52.2	5	10.2	4
	Ujjain	144,161	54.4	3	8.1	3
	Durg	133,230	33.4	7	15.6	6
	Sagar	104,676	41.8	6	22.3	7
Madras	Madras	1,729,141	67.3	1	6.3	1
	Madurai	424,810	54.0	6	9.9	3
	Coimbatore	286,305	54.7	5	11.2	6
	Tiruchirapalli	249,862	59.2	3	8.2	2
	Salem	248,548	41.0	8	19.6	8
	Palayamcottai	190,048	44.1	7	20.0	9
	Vellore	122,761	56.9	4	10.6	4
	Kurichi	119,380	32.3	9	18.4	7
	Thanjavur	111,099	62.3	2	10.9	5
Maharashtra	Greater Bombay	4,152,056	54.6	4	8.8	1
	Poona	737,426	65.2	1	9.8	2
	Nagpur	690,302	49.2	7	14.6	6
	Sholapur	337,583	34.7	8	16.0	8
	Nasik	215,576	62.7	3	11.7	4
	Sangli	127,183	49.3	6	14.7	7
	Malegaon	121,408	23.3	9	28.4	9
	Ahmednagar	119,020	62.9	2	12.6	5
	Thana	109,215	51.9	5	10.5	3

continued..

Name of state	Name of city	Population of city	Percentage of tertiary occupations	Rank of city in descending order of percentage of tertiary occupations	Percentage of workers in female population	Rank of city in ascending order of percentage of female workers
Mysore	Banglore	1,206,961	52.1	4	9.7	4
	Mysore	253,865	61.9	2	7.8	2
Mysore	Hubli Dharwar	248,489	56.0	3	8.5	3
	Manglore	107,253	50.0	5	23.8	6
Punjab	Kolar Gold Fields	146,811	23.8	6	12.3	5
	Balgaum	146,790	63.4	1	7.8	1
	Amritsar	398,047	61.0	4	2.8	1
	Jullundur	265,030	70.4	3	3.1	2
	Ludhiana	244,032	52.5	5	4.4	4
	Ambala	181,747	75.9	1	3.4	3
Rajasthan	Patiala	125,234	70.7	2	4.9	5
	Jaipur	403,444	64.8	6	6.0	4
	Ajmer	231,240	79.0	1	5.3	2
	Jodhpur	224,760	73.2	3	5.0	1
Uttar Pradesh	Bikaner	150,634	74.3	2	5.3	3
	Kota	120,345	68.1	4	9.3	5
	Udaipur	111,139	67.9	5	10.6	6
Pradesh	Kanpur	971,062	55.7	16	3.2	7
	Lucknow	655,673	70.3	6	4.4	10
	Varanasi	489,864	55.0	17	7.4	16
	Allahabad	430,730	71.7	5	5.5	13
	Agra	508,680	63.4	11	2.4	2
	Meerut	283,997	67.6	7	4.4	11
	Bareilly	272,828	64.3	9	2.8	3
	Moradabad	191,828	58.4	15	2.2	1
	Saharanpur	185,213	63.8	10	2.8	4
	Aligarh	185,020	62.8	12	3.7	8
	Gorakhpur	180,255	66.3	8	7.0	15
	Jhansi	169,712	72.8	3	6.3	14
	Dehra Dun	156,314	79.5	1	4.9	12

continued..

Name of state	Name of city	Population of city	Percentage of tertiary occupations	Rank of city in descending order of percentage of tertiary occupations	Percentage of workers in female population	Rank of city in ascending order of percentage of female workers
West Bengal	Rampur	135,407	58.5	14	2.8	5
	Mathura	125,258	76.0	2	4.2	9
	Shahjahanpur	117,702	71.8	4	3.0	6
	Mirzapur	100,097	60.3	13	10.0	17
	Calcutta	2,927,289	70.5	3	6.1	9
	Howrah	512,598	53.3	6	2.9	3
	South					
	Suburban	341,712	45.8	7	3.3	5
	Asansole	168,689	56.6	4	3.1	4
	Bhatpara	147,630	27.4	10	4.8	8
Kharagpur	147,253	73.5	2	4.3	7	
Bally	130,896	32.1	9	4.0	6	
Kamarhati	125,457	33.7	8	2.8	1	
South Dum-						
Dum	111,284	54.8	5	2.8	2	
Burdwan	108,224	77.1	1	6.2	10	

In each State, the cities have been arranged in the descending order of the number of their population. Also shown in the Table are the ranks of the cities within each State according to the descending order of the percentage of tertiary occupations and the ascending order of the rate of women workers. If these two ranks correspond with each other there would be perfect negative correlation between the percentage of tertiary occupations and the rate of employment of women.

The Spearman's rank difference coefficients of correlation between the percentage of tertiary occupations and the rank of employment of women in the different States are shown in Table 3. Since, according to our hypotheses, the degree and direction of the correlations are dependent upon the size of the rate of employment of urban women in the region as a whole, the rates of employment of urban women in different States are also shown in the Table for convenience of interpretation. Tables 2 and 3 may be considered together.

TABLE 3

Rates of of Employment of Urban Women and Correlation Coefficient between Percentage of Tertiary Occupations and Percentage of Women Workers in Cities in Each State

Name of State	% workers in urban female population	Spearman's corr. coeff. between % tertiary occupations & % workers in female population in cities	No. of cities over one lakh population (N)	Level of significance of coeff. of corr. (df=N-2)
Andhra Pradesh	18.74	-0.981	11	p < .01
Madras	14.94	-0.767	9	p < .02
Mysore	14.87	-0.943	6	p < .01
Madhya Pradesh	14.49	-0.500	7	Moderate
Maharashtra	13.44	-0.775	9	p < .02
Kerala	13.00	-0.700	6	Moderate
Bihar	10.39	-0.266	9	Low
Rajasthan	10.05	-0.657	6	Moderate
Gujarat	9.24	+0.057	6	Low
Uttar Pradesh	5.34	+0.202	17	Low
West Bengal	5.11	+0.369	10	Low
Punjab	4.69	+0.200	5	Low
All India	11.08	—	—	—

By our hypotheses, in states where the rates of employment of urban women are relatively high, there would be a negative correlation between the percentage of tertiary occupations and the rate of employment of women, and further, higher the rate of employment of urban women the higher the degree of correlation. If the general rate of employment of urban women in the state is relatively low, the correlation would be positive. In Table 3, the states have been arranged in the descending order of the rates of employment of urban women. Accordingly the pattern of the coefficients of correlation between the percentages of tertiary occupations and the rates of employment of women in cities in different states, on the whole, supports our hypotheses. First we have negative correlations continuously in a row in states placed in the upper part of the table on the basis of their higher rates of

employment of urban women. On the other hand in states which have been placed lower on the same basis, there are continuously positive correlations. Again, the coefficients of correlation in states which are on the upper part of the Table, are on the whole of a higher degree as expected.

To examine the data in greater detail, the states in Table 3, may be divided in three categories : 1) states with rates of employment of urban women exceeding the all India average of 11.08, 2) states in which these rates are close to the all India average and 3) states with rates very much below the all India average. In the first category we may include the states of Andhra Pradesh, Madras, Mysore, Madhya Pradesh, Maharashtra and Kerala. As expected, in all these states the coefficients of correlation between the percentage of tertiary occupations and the rates of employment of women in cities, are negative and with two exceptions they are highly significant. In the two exceptional cases of Madhya Pradesh and Kerala also the degree of correlations is not negligible. Moreover, it can be shown that the relatively lower degree of correlations are due to certain large discrepancies in the case of one or two cities in each state.

As can be seen from Table 2, in Madhya Pradesh the discrepancies occur in Gwalior and Jabalpur. In Gwalior the rate of employment of women is lower than expected, perhaps due to cultural reasons. This city is closer to the State of Uttar Pradesh where the cultural norm discourages the employment of women. On the other hand in Jabalpur the rate of employment of women is greater than expected although we are unable to indicate the precise reason. In Kerala the lower than expected degree of correlation is due to the discrepancy in the case of city of Calicut. The relatively lower rate of employment of women here may be attributed to the concentration of Muslim population which is noted for its strict seclusion of women.

The states of Bihar, Rajasthan and Gujarat which have rates of employment of urban women lower than, but nearly equal to the all India average may be included in the second category. As expected we do not have any very high negative correlations in these states. In Gujarat which has the lowest rate of employment of urban women in this category, the correlation has taken the positive turn. Although this fits into the general pattern, it seems to be too sharp a transition. One of the main reason for this state of affairs is the big discrepancy found in the case of the city of Ahmedabad as can be seen from Table 2. This city has the lowest percentage of tertiary occupations as well as the lowest rate of employment of women. The discrepancy is due to the fact that Ahmedabad is a major industrial city and so its socio-economic condition is much higher than what is indicated by the percentage of tertiary occupations. Hence the low rate of employment of women. Similarly the relatively lower coefficient of correlation in the case of the State of Bihar is because of the industrial cities of Jamshedpur and Monghyr-

Jamalpur which manifest large discrepancies. Thus, on the whole the coefficients of correlation in the states in this category are in conformity with our hypotheses.

The remaining states of Uttar Pradesh, West Bengal and Punjab, which have rates of employment of urban women much lower than the country's average may be included in the third category. The coefficients of correlations in states in this category are different from those in the other two, and they are precisely as expected. They are all positive although not significantly high. Since the trend for women to enter the working force at higher occupational levels was barely visible in 1961, any high positive correlations were too early to expect.

Considering the fact that our index of socio-economic condition of cities, namely the percentage of tertiary occupations, is quite crude, it is not too much to suggest that data presented in Tables 2 and 3 strongly support our hypotheses.

SUMMARY

Two broad aspects of the problem of the variation in the rate of employment of women in India have been distinguished. One is the variation among cultural regions and the other, among communities within the same region. The paper deals with the second aspect. For the present purpose it is assumed that the variation between different regions is due to diverse cultural factors and so in the analysis the cultural influence has been held constant.

An attempt has been made to understand the problem of variation of employment of women in different communities in the same cultural region, in terms of the sociological proposition that there is a tendency for the social status of the members of a family to form a consistent pattern. Analysing the employment situation in India in relation to this proposition the following major hypotheses have been formulated: In regions where the rate of employment of women is already relatively high, with the improvement in the socio-economic conditions in the community there would be a decline in this rate. On the other hand, if the rate of employment of women in the region as a whole is relatively low, with the improvement in the socio-economic conditions in a community, the rate would tend to increase. The data presented support these hypotheses.

It may, therefore, be concluded that the present study would provide at least a part of the explanation for the problem of variation in the rate of employment of women in India.

NOTES AND REFERENCES

1. The percentage of workers in the female population is here termed the rate of employment of women.
2. Since the districts include both urban and rural areas the percentage of secondary and tertiary occupations together would constitute a better index of socio-economic development.

AJIT DASGUPTA

Management of Labour Resources

THIS, rather a pedestrian note, is presented with all its shortcomings, more as a call notice, to draw attention of the historians to the need for research in the field of demography of India of the past. The field is actually restricted in this note to labour resources.

The prime importance of the labour factor in modern India and its neglect by development planners, are first discussed. The principle of division of labour, as institutionalised in ancient India, and the labour power utilisation in Kautilya's time are then described. The trend of labour force in India during the period 1881-1961 is also briefly sketched.

Modern Significance : Of the factor of production—labour, natural resources and capital—modern India is particularly deficient in capital but rich in labour. Labour power resources are not only plentiful but are of high calibre. Indians have held their own and established themselves, often in the face of adverse competition, as technicians, traders and skilled workers in many foreign lands. The transformation of an ignorant Indian villager into an efficient Indian Jawan, after a couple of years' training, confirmed the high calibre of the material. Yet our national development plans have consistently neglected to make good use of this rich resource.

The prime importance of the labour factor, in the current Indian situation, had been emphasized by a number of eminent Indian thinkers on the eve of independence. M. N. Roy, for example, in his foreword to the *People's Plan* of 1944, in discussing where the capital was to come from, pointed out that all wealth was created by labour.¹ The *People's Plan* envisaged a substantial increase in national product in agricultural sector where the largest

volume of labour was employed.

About a third of the labour power capacity, mostly tied to the agricultural rural sector, is lying unutilised in India.² Even so, very little serious work has been done under the successive plans to explore the possibilities of increasing agricultural production through increased and intensified labour input. Other obvious areas for utilisation of the languishing labour power resources are social and extension services. It is common knowledge how deficiency of extension services is retarding development of agriculture or family planning programmes. Labour power is also the dominant component of primary education, public health or national integration programmes.

Of the countries around us that have taken firm steps towards development and self-sufficiency in recent times, China has successfully utilised her indigenous labour power resources. Japan built her cottage industry base by introducing simple light machinery, which was more labour intensive.

However, we were unable to take a radical resource-oriented approach to planning and remained confined within the frame-work of economic thinking in the West. While our end was socialist society, the means to achieve it as expressed in the development plans, progressed from financial to physical but did not become social.³ The inherent defect in the Indian development planning approach, the failure to emphasize the utilisation of ample labour power resources, held down progress and resulted in increasing backlog of unemployment. It even made it appear as if ample labour power resources are somewhat of a liability !

Ancient Caste System : The failure to appreciate the importance of the labour power resources is more surprising for India, which in ancient times perceived not only the importance of labour power, but of its division and specialisation ; and went on to institutionalise the division in *Varnā'sram-dharma*. The fact that the way of division of labour degenerated into the rigidity and oppression of the caste system and the system inhibited further progress, need not detract from its limited range efficiency. The way of division of labour developed into a very sophisticated (though sometimes regionally duplicated) system of industry-occupation classifications. About a century ago, census of India listed over 1000 castes and sub-castes in a single province, namely, Bombay.⁴

Industry in ancient times was mostly family based, and training of the next generation of skilled labour took place at the cottage/home factory at young pre-adult ages. A girl from a potter's family, therefore, fitted best into the way of living and economic activities of another potter's family. The recommendations about marriage within caste thus helped efficient realisation of trained labour and improved specialisation. The concern of the society for essential occupations and specialisations was evinced by social customs and prescriptions for use of the specialised products and services at ceremonies

like marriages, *śrādhā* etc. Such practices might not have been conducive to economic growth, but disclosed awareness of the importance of utilisation of labour power.⁵

Kautilya's India : It is worthwhile to look a little more into the attitude towards labour power resources and their management in ancient India. The references here are all from Kautilya's *Arthasāstra* depicting contemporary (300 B. C.—300 A. D.) conditions or precepts.⁶ In spite of interpolations and uncertainties of interpretation, the *Arthasāstra* renders an elaborate and specific account. Kautilya's was a time of sparse population and there are recommendations to form new villages either by inducing foreigners to immigrate or by causing thickly populated centres of his own kingdom to send forth the excessive population (B II C I). Kautilya appears to have emphasized the supreme importance of labour power when he held (in contradicting the school of Parasara who laid more weight to fortifications than people) that fortifications, finance, the army, and likewise constructions, trade, agriculture and further, strength, stability and abundances, all depended on people (B VIII C I).

The importance of training and discipline of the labour force was fully appreciated by Kautilya. The subsistence and wages of government servants were to be increased in consideration not only of their work but their learning (B VII C XII). The *Arthasāstra* enjoined the duty of the householder as earning livelihood by his own profession (B I C III). The student was permitted to live on charity; this was presumably an admission of the principle that while training for future economic activity, he was entitled to investment from proceeds of labour power. In contrast the aged people going out of labour force (adopting *vanaprastha*) were to live only on foodstuff procurable in forests (B I C XV).

Full realisation of available labour power capacity as labour input is effected through efficient management and systems. A good part of *Arthasāstra* is concerned with management and systems at various levels and spheres. Kautilya recommended only 3 to 4 ministers to the king as optimum (B I C XV); this number, whether it be a chance coincidence or not, conforms to most modern management principles. The superintendents were advised to associate closely with the workers. Women who did not stir out of their houses, the cripple and the young girls could get supplies of spinning work at their own houses through maids (B II C XXIII).

Wages, recognition, reward and promotions forms the most important system of incentives and smooth and competitive functioning of the labour force. The salary spread at the times of the *Arthasāstra* appears to have been very wide.⁷ Per year, Panas 48,000 salary was recommended for the guru, the minister and the commander-in-chief, and it dwindled down to Panas 60 for the miscellaneous labour, resulting in an extreme spread of 800:1 (B V

C III). There were widows' and childrens' subsistence for government servants who died on duty (B VII).

Under the *Arthasāstra*, the amount to be paid as wages (when not previously settled otherwise) shall be proportional to the work done and time spent on doing it (B III C XIII). The service charge or trading profit was laid down as 10% of the commodity sale price generally; ceilings for remuneration of middleman's function were further laid down (B IV C II). Combines or co-operatives of workmen were to divide their earnings either equally or as agreed among themselves. When commodities were being manufactured, wages were to be paid according to the work turned out. Any person neglecting his share of work by stealth was to be shown mercy for the first time, but thrown out of the combine (company) on second neglect (B III C XIV).

Provisions for equitable settlement of disputes on wages or charges find place in more than one chapter in the *Arthasāstra* (B III C XIII). Work partly done but not completed because of negligence of the employer when the labourer was ready to accomplish the work, will be deemed as completed work (B III C XIV). On the other hand, artisans and workers not fulfilling engagements and agreements made themselves liable to fines (B IV C I). Fines and deductions are further provided for below specification or unsatisfactory work, or misuse of articles in their charge (e. g. of clothes by washermen taken for washing). Reward and remuneration were related both to the output and quality of work ; the superintendent of weaving was to fix remuneration of spinners according as the thread spun was fine, coarse or middle quality (B II C XXIII).

The fact that working of spinners on holidays was provided, payment of special reward (B II C XXIII) shows the intensity of utilisation of skilled workers, equal keenness for utilisation of land resources is evidenced from the injunction that land not cultivated could be confiscated from the owner and given to others, or allowed to be cultivated by village labourers or businessmen. The appreciation of the function of labour power is apparent from Kautilya's statement that the destruction of grains was worse than the destruction of crops, as by the former the labour input is also lost (B VIII C II).

Labour Force since 1881 : The labour force or population engaged in economic activity is not known for India prior to the modern censuses. Since labour force is socio-economic entity of basic importance, it is necessary that the historians extend the labour force estimates to Mughal India and earlier. Rough estimates of the total population of India have been made for Akbar's time. If the total number of workers, besides the total population, be known from tax or other records for few villages, the ratios may be possibly used for estimation of labour force in that historical period.

Census 1881 counted the so-called 'actual workers' but adjustments were

needed both for classification defects and territorial shifts, to make the labour force of 1881 census records comparable to the recent ones. The joint project of Census of India and Indian Statistical Institute on the working force in India,⁸ estimated the labour force in India in 1881 (in comparable territorial and classificatory base to 1951) as 101 million out of a total population of 213 million, giving a labour force proportion of 47.4%. In census 1961 about 188.4 million were reported in the labour force out of a total population of 438.9 million, giving 43% as the labour force proportion. The overall labour force proportion for whole of India has thus fallen by about 4 percent in course of the intervening period of 80 years, 1881 to 1961; and the absolute volume of the labour force in 1961 was 1.86 times the labour force in 1881.

Labour force proportion of a population is dependent on its age structure. The age structure of the Indian population has not changed substantively during the period. The labour force proportion is also dependent on the degree of urbanisation, as the proportion is usually lower in the urban sector. Urbanization (towns were defined as places with 5000 or more inhabitants or with municipal characteristics) advanced from 9% in 1881 to 18% in 1961. Progressive urbanisation together with greater attendance of pre-adults now in school, could explain the major part of the fall in labour force proportion. The labour force proportions separated in time and space are not, however, quite comparable, owing to variations in definitions, interpretations and classification. Census 1951, for example, reported as low as 39% labour force proportion. The variation and errors cause large fluctuations in labour force time series at state level.

In the context of increase in per capita income, the fall in the proportion of the labour force from 1881 to 1961, implies increase in average productivity. The average annual rates of growth of national income over the period 1881 to 1961 could be taken as 1.4% in real terms.⁹ The aggregate national income in 1961 is thus 3.04 times the national income of 1881. Dividing this by the relative increase in labour force in the same period, productivity of the labour force in 1961 registers a rise of about 63% in these 80 years.

Just a higher quantity of labour in-put will not be correlated with higher output, when capital or organisation per worker differ. For example, the per capita national labour per annum (with the whole population as base to make it comparable to per capita national income) measured by average gross hours worked is over 850 for India as compared to about 700 for U.S.A.,¹⁰ while the per capita national income of the former was about 2.5% of the latter. But at the same level of capital-organization output will grow with increased utilisation of labour power. Increasing utilisation of labour power is of immense social advantage.

The labour force proportion and the conventional internationally recom-

mended unemployment indicator, are not, however, a satisfactory measure of employment or utilisation of the labour power capacity in a developing economy. Special employment studies have to be made for the purpose. The first representative study in the line was made in India for the agricultural labour in the Agricultural Labour Enquiry of 1951-52. Few representative studies have since been made by the National Sample Surveys and other organisations; but the results have not been adequately analysed to provide guide lines for fuller utilisation of labour power and accelerate the pace of national development.

NOTES AND REFERENCES

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2. The concept of labour, (man) power, capacity and its utilisation was discussed by the author in his paper, "An Empirical Approach to Measurement of Underemployment", International Statistical Institute Session at Tokyo, 1960.
"Some Characteristics of the Economically Active Population", *National Sample Survey*, No. 14, Delhi, 1959, estimated that the gainfully employed in India worked only about 19 days a month on the average. *National Sample Survey*, No. 16 on "Employment and Unemployment", Delhi, 1959, estimated that 15% of the gainfully employed were underemployed.
3. The author had drawn attention to this defect in the Plans in his article "The Population Problem and the Indian Setting", *Census of India, Population Bulletin*, Vol. I, Delhi, 1959.
4. *Census of India 1881*, Vol I, Pt. I.
5. The Author is indebted to Kali Charan Ghosh for most of the interpretations of caste and customs. Ghosh described the caste production structure in his article "The Problems of Cottage Industry", in the *Modern Review*, June 1949.
6. All references in round brackets to Books (B) and Chapters (C) refer to Kautilya's *Arthaśāstra* translated by Dr. R. Shamasastri, 1960, Mysore. Some minor verbal changes have, however, been made by the author.
7. The possibility that the elite later on tampered with the text of the *Arthaśāstra* to lift their end of the salary scale to their advantage, should not be ruled out. Maganlal A. Buch in his *Economic life in Ancient India*, Baroda, 1924, held that income inequality in ancient India was very moderate. He was, however, relying more on Vedic times. For the detailed and very sophisticated system of labour contracts, wages, reward for meritorious service, as also the theory of wages and minimum wages, and the institution for adjudging of proper wages by experts, in Vedic times (mostly *Atharvaveda*) reference may be made to Buch.
8. Daniel and Alice Thorner, *The Working Force in India, 1881-1951*, Bombay, 1961.
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NILMANI MUKHERJEE

Port Labour in Calcutta 1870-1953: Some Trends of Change

THE volume of sea-borne traffic passing through the port of Calcutta is of the order of 11 million metric tonnes of which exports roughly account for 5 million tonnes and imports 6 million tonnes. The revenues of the port amount approximately to Rs. 20 crores per year. The whole of this amount is spent in maintaining the port services and in repaying the loans taken to meet capital expenditure. The port handles about 41 % of the total value of exports and 28 % of the total value of imports of the country.¹

The affairs of this busy port are administered by a statutory body known as the Commissioners for the Port of Calcutta. The origin of this body dates back to 1870. There are various departments under the Port Commissioners dealing with administrative and policy matters, accounts and finance, traffic operations, civil engineering works, pilotage, dredging and navigation, stores and equipment, hydraulic research, legal affairs and last but not the least, labour and labour welfare.²

In the study of port operation it is important to know about its physical design and lay-out and the equipment required for handling ships and cargo. But nothing is more important than the people who do the work. The human factor is described by the present day authorities on port administration as the supreme factor in the operations of a port.³

In this paper an attempt is made to trace the evolution of the labour relations at the port of Calcutta. This study is confined to those labourers who were engaged in the handling work at the jetties, docks, wharfs, and quays of the port. They were designated by the term 'dock worker'. A dock worker is a person employed in or in the vicinity of a port on work in connec-

tion with the loading, unloading, movement or storage of cargoes or work in connection with the preparation of ships or other vessels for the receipt or discharge of cargoes or for leaving port.

Before we can discuss the problems of dock workers a brief reference to the development of port facilities at Calcutta may not be out of place. The Calcutta jetties were already in use when the Port Trust was formed in 1870. The first of the Kidderpore docks was opened in 1893 and the system was completed by 1902. The King George's Dock was opened in 1928 and many extensions were made to it later. Besides these there are the Budge Budge oil jetties, and the tea warehouses and the Garden Reach jetties. Calcutta Port's dock labourers are active at these docks and jetties.

The annals of the early days of the port do not yield us any certain information regarding the terms of employment of the labourers in it. We hear of a Falgoun Das, a native of Orissa, who earned considerable wealth by supplying ships with labourers for the delivery of goods and acting generally as *banian* to Captains.⁴ One may perhaps hazard a guess that in old days these captains' *banians* supplied the bulk of the labourers required for loading and unloading ships at Calcutta.

Messrs Bird and Company of Calcutta appeared on the scene quite early. The Birds had started operations as labour contractors as early as 1864 and their first contract with the Port Commissioners was signed in 1879-80.⁵ From that time onwards the Birds for many years supplied the bulk of the labour force at the port of Calcutta.

An early reference to labour unrest appears in the proceedings of Commissioners' meeting of May, 1877. There was a suspension of work among porters. The jetty Superintendent reported that the jetties were almost idle on April 30, owing to "a strike among sardars and coolies". The strike was the result of imposition of a license tax on Sardars by the Municipality. The port authorities in those days knew little and understood less about the existing labour organisations in Calcutta.⁶ But the events such as this brought the labour problem into a sharp focus. This was the beginning of a question that was to grow in importance and assume new dimensions as time passed. The Commissioners at least had begun to study the problem with the attention it deserved.

The labour problems of the port for many years centred mostly on the Commissioners' relations with their labour contractors, Messrs Bird & Co. In 1895, three years after the opening of the Kidderpore Docks, the Birds' contract work was extended through the whole of the docks. At this time few ships were using the docks and no separate coal wharves had yet been built. The Birds took a number of dock sheds for storing export coal. The Port Commissioners' own labour arrangements at that time were inadequate for coping with the sudden rise in coal shipments. The result was that the

Birds got a contract to supply labour for coal handling. This was extended soon afterwards to handling general cargo at the docks, then to the new tea warehouse that was opened there and before the end of the year, to the Port Commissioners' kerosene oil depot at Budge Budge, where the bulk of the oil arrived in tins.

Ernest Cable (later Baron Cable of Ideford) of the Birds has been described as a master of the art of getting improved rates. He did this with the Port Trust in 1898, submitting audited accounts to prove that the Birds were losing Rs. 4,000 a month on the contract and marshalling the arguments with convincing skill. The result was the largest increase ever granted to a contractor. Cable was able to record in the following year: "The docks are paying at last". In that year the firm handled 870,000 tons of coal alone.⁷

PORT TRUST ENQUIRY 1901

The fate of the Birds as the port's contractors hung in the balance when the Port Trust Enquiry Committee was at work in 1900. Cable, among others, was called to give evidence. The Commission ultimately gave its support to the system of labour supplied by the contractors rather than to that of departmental labour which had been advocated. The Commission said that there was no evidence to show that the payments were excessive in the case of coal labour. The cost of handling other goods which was paid to contractors appeared to be rather immoderate. The Lt.-Governor of Bengal in his resolution on the Enquiry Committee Report, however, remarked that this question of the cost of labour was worth further investigation by the Port Trust.⁸

This remark and the arrangement of the supply of labour for mechanical coal loading plant which had been installed at one berth did not prevent the signing of a new contract at increased rates with the Birds in 1906. The Birds had achieved with the Port Commissioners a peace that remained unbroken for many years including those of World War I.

THE WHITLEY COMMISSION

One disquieting symptom of the post-war years was the growing labour unrest and the prevalence of strikes. The Commissioners, as one of the largest employers of labour in Calcutta, were naturally affected by this tendency. The occasional stoppages of work in different departments caused considerable delay in the discharge and loading of vessels at the docks and jetties. These strike waves were by no means peculiar to Calcutta Port but were part of a much larger problem which characterised the inter-war period. The appointment of the Royal Commission on Labour in India in 1929 underlined the seriousness of the problem. The Commission visited Calcutta in 1929-30 and Sir Charles Stuart-Williams, Chairman of the Port Trust,

gave evidence on behalf of the Port Commissioners. The members of the Royal Commission visited the docks and saw the conditions under which the port's labour lived and worked.

The Commission recommended the extension of the practice of nominating a representative of labour on Port Trusts to all the major ports. With a view to decasualisation and to secure more equitable distribution of employment, the Commission recommended a system of registration of dock labour supervised and controlled by the port authority assisted by representatives of shipowners, stevedores and labourers.

The Commission also recommended the framing of safety regulations for docks, restriction of daily hours of work and overtime and the minimum age of employment.⁹

When the Bill for the protection of workmen engaged in loading or unloading ships was considered, the Port Commissioners did not oppose it. The recommendations of the Royal Commission on Labour regarding decasualisation and registration of dock labour, however, they were not found wholly acceptable. In their opinion, the recommendations were too general, having no direct bearing on conditions peculiar to Calcutta.¹⁰

In 1934-35 the Commissioners revised the terms of the agreement with Messrs Bird & Co. for the supply of labour at the docks. The size of the Commissioners' departmental labour was still not very large and for handling they had to depend on their labour contractors M/s. Bird & Co. or on labour supplied by stevedores.¹¹

As a result of the investigation conducted by the Royal Commission many questions relating to port labour at Calcutta were thrashed out and a clearer picture of port labour was obtained in the process.

The Commissioners' departmental labour was employed at the Calcutta jetties, at the Tea Warehouse and at the mechanical plant berths in the coal dock. The men were recruited individually and were paid directly, no middlemen intervening. The supervision over this labour was provided by the Port Commissioners. This body of labourers was described as a specialised group, paid at monthly rates and it framed an inconsiderable part of the total shipping labour of the port. The second category of labourers was supplied by Bird & Co. They performed the shore work at the Kidderpore and King George's Docks, Garden Reach Jetties and the coal berths and the shore and stevedore work at Budge Budge. In this case, the labour, apart from a small body of monthly men, worked in groups. Stevedores' labour formed a third category. These labourers worked on board steamers throughout the port. They were used for stowing and breaking out cargo and could probably be considered as more skilled than the ordinary labour employed at the quays.¹² Labourers of the second and third categories were employed on a piece work basis or the *Khatta* system.

SUPPLY OF LABOUR

The Bird & Co. supplied the bulk of port labour. The firm did not do this directly but through the sardars. The sardars engaged men from districts and villages where they were well known, and the recruits were frequently their relatives and friends. This enabled them to exercise considerable influence and control over the gangs. Labourers worked best under sardars known to them. M/s. Bird & Co. assisted the sardars when recruiting with advances for railway fares and to enable them to leave money with the families of men newly recruited.

The principal regions from which labour was recruited were Bihar and U. P. Very little labour was recruited in Bengal for the Bengali labourers appeared averse to taking up handling work. Only in times of labour scarcity following mass exodus of labour from Calcutta was there a demand for Bengali labour. Stevedores' labour was recruited mostly from Orissa.

The labourers were agriculturists first and during certain periods of the year, especially at harvest time, a large percentage went to their home districts. Some went home frequently, twice a year. Both the Commissioners' own labour and the labour supplied by contractors belonged to the same class of men, with the same habits of life and the same characteristics and came from the same areas. The Commissioners recruited their departmental labourers from among those workers who offered themselves for employment. They were generally either men who had worked previously with the Commissioners or were related to or fellow villagers of those already in their service. Speaking generally, they lived a life of austerity and were of frugal habits, trying to save as much as possible. Their recreation did not go beyond a visit to the zoo or the museum.¹³

THE SARDAR SYSTEM

Labourers supplied by the Birds and stevedores worked in gangs under sardars by whom they were recruited. The unit always was the gang working under a sardar. The sardars maintained gangs of 40 to 100 men each. They were paid according to the maundage or tonnage of cargo handled by their gangs. Sardars were responsible for the discipline of the gangs. In many cases they were appointed on the hereditary principle, son taking the place of father. The monthly paid workers of the Bird also worked in gangs of 20 men each under a sardar. This group of labourers was employed by the firm for the handling of heavy and awkward cargo, for the trimming of coal at the coal berths. The majority of the men worked under the same sardar for years.

The relations between the sardars and the men who worked under them were not precisely known to outsiders or for that matter even to the Bird & Co. themselves or at any rate to their European staff. Probably the sardars

kept a nucleus of workers permanently attached to them and round these built up gangs from such other men as they could find each day. Enquiries made in 1944 revealed some of these facts. The sardars usually accompanied the men to the docks and worked with them under the direction of Bird's gunners and supervisors. Some of them employed a tindal to act as foreman of the job. Some of the bigger sardars provided several gangs and appointed a tindal to take charge of each.¹⁴

THE SYSTEM OF PAYMENT

The sardars were described as being in fact sub-contractors to Bird & Co. The sardar's accounts were paid once a week. When and how they paid the individual members of their gangs was left entirely to them.

Enquiry into the pay received by the sardars and the individual workers themselves was attended by many and obvious difficulties. In the first place Birds themselves were naturally reluctant to speak of their financial arrangements to outsiders. In the second place, the essence of their system was that the sardars were left to make what they could out of the difference between what Birds paid and what the workers got; and in order to avoid being squeezed between the two the sardar could be expected to hide from each as much as possible of his transactions with other. It was doubted whether the Birds made any serious effort to keep in touch with what the sardars paid to the workers. In any case the problem of controlling what the sardars paid was difficult. The sardars were an indispensable part of the labour organisation, both for bringing in the labour and for supervision on the quay. The method of recruitment and working of stevedores' labour was similar to that employed by Bird & Co.¹⁵

DESCRIPTION OF LABOUR

The sardars and workers were divided into two classes: (a) heading labour, (b) general and rough cargo labour. The heading men were regarded as the cream of the store labour. They were accustomed to handle bag cargoes and were capable of carrying bags weighing 2 cwt and more on their heads over the longest lead. Good heading workers earned considerably more than ordinary labourers and their physique was noticeably better.

All dockers who were not heading men came in the second category within which there was no specialization. These men were accustomed to trucking and handle anything from tea and jute to pig iron and rough ores as well as rails and other heavy and awkward cargoes.

Among the labourers Hindus predominated. But Muslims were not uncommon. Before the partition there were some East Bengal Muslims in the supervisory grades who worked as serangs and tindals and were old hands. A number of "chamar" gangs were formed among the general cargo workers.

These so-called low caste men handled hides and skins, bone meal and other cargoes which most workers would not touch for religious reasons. It was said that a few of these 'chamar' gangs were also capable of heading but this was exceptional.¹⁶

The recommendations of the Royal Commission were in favour of decasualisation, the elimination of middlemen and individual recruitment of labour. It is interesting to note that in 1932 the Port Commissioners, the Bird & Co., the Master Stevedores Association, the Calcutta Liners Conference and M/s. Mackinon Mackenzie & Co. wanted to retain the existing system and doubted the advisability of abolishing the gang system. The chairman of the Port Trust advised deferring the proposed change until labour made sufficient progress in the way of organisation and gained power to look after itself. "Nothing but loss and disappointment can arise from the adoption of machinery, however useful in the West, for which the Indian labour is as yet unfitted", he remarked.¹⁷

LABOUR ORGANIZATION

The Port authorities and their labour contractors, while giving evidence before the Whitley Commission, testified to the absence of organization or combination among port labour in Calcutta. But we have evidence that there was a growing tendency among dock workers to be vocal about their demands and to express their grievances. At a mass meeting held by 1482 dock workers, under the auspices of the provincial committee of the All India Trade Union Congress, presided over by its president Mrinal Kanti Basu in December, 1927 certain resolutions were adopted. A study of these resolutions show that the dock workers resented being called usually by the insulting epithet of "dock coolies". It was stated that they had been labouring under certain grievances of which no notice had been taken by the port authorities, notwithstanding repeated representations made to them. It was resolved that a union be formed of these dock workers and named "Dock Workers Union". They wanted abolition of bribery and demanded improved housing and a provident fund.

There were several strikes during this period. About the dock strike of stevedores' workers in 1934 it was reported in *The Times* that communism was at the bottom of the trouble. It was stated at the same time that the strikers' demands were economic, the chief being an increase in daily wages, a reduction in daily hours from 11 to 8 and the employment of two gangs per crane instead of one.¹⁸

During World War II the port labour had to cope with enormous demands made upon it in drastically changing conditions. Not the least of these changes was in the new outlook of labour. The men, in contact with the personnel of armies from overseas, had learned to expect a much

higher standard of living. This, together with the recognition by the government and employers that just demands ought to be and indeed must be met and the advancement of science in industry, were to be the major influences shaping the immediate future of the world of labour.¹⁹ The Commissioners showed their awareness of these new trends and formulated a policy that was in consonance with them. A feature of the post-war years was the appointment of labour representatives for the first time on the board of Commissioners, thus implementing the recommendation made by the Royal Commission in 1930. Furthermore, the Commissioners decided to employ their own departmental labour in place of the labour supplied hitherto by Bird & Co. A definite method of working the departmental labour was laid down. This system retained the principle of pay-cum-piece rates and it was expected to meet all the requirements of work peculiar to the port. Since the system contained the main features of decasualisation, it anticipated the proposed legislation for the decasualisation of dock labour.²⁰

The change from contract labour to departmental labour was effected on April 1, 1948.²¹ The termination of the Birds' labour contract was a big change and it marked the end of an association which under varying conditions had endured for well over half a century. The Commissioners' contract had been the main stay of the Birds' labour department and as a result of the end of this contract the very basis of the Birds' labour department was affected.²²

The main feature of the Commissioners' new scheme was the maintenance of a primary register of labour with a guaranteed minimum wage for each labourer and a secondary register consisting of daily paid men who would only be employed to meet sudden results of traffic. The men on the primary register were eligible for membership of the Contributory Provident Fund, leave and all other benefits granted to similar staff in the Port Trust. They worked in gangs, each gang consisting of 14 men and a sardar in the case of cargo dock and 12 men and a sardar in the case of the coal dock. In addition to his piece-rate earnings as member of the gang, the sardar in charge received Rs. 20 per month.²³

Port labour in Calcutta now could be divided broadly into two classes: the shore labour in the direct employment of the Commissioners and labour engaged by stevedores for work on board the vessels. In the post-war years there was continuous disaffection among stevedores' labour. This caused concern. In September, 1950 the situation took a serious turn. It appeared that some small stevedores were trying to exploit the labourers. New men were being registered while even the Master Stevedores Association could not find sufficient employment for their own registered labour. The Commissioners' Traffic Manager thought that unless some method of registration and licensing of stevedores could be introduced immediately the situation might

become serious. He suggested the creation of a machinery to control the unrestricted activities of new adventurers in the market dealing with labour outside the docks. There was a risk of clashes between stevedores' organisations affecting shore labour.²⁴ The National Union of Dock Labour drew the attention of the Transport Ministry to the gravity of the situation and suggested an enquiry into the existing unsocial practice and the immediate formation of a labour pool.²⁵ The chairman of the Port Trust also felt that the existing labour position was anything but satisfactory and that it was essential that the Dock Labour Board scheme including some system for registering and licensing stevedores should be brought into force without further delay.²⁶

The wages and conditions of port labour in Calcutta received a very large amount of detailed examination, decasualisation being the order of the day. There were charges of exploitation of labourers on the part of the employers, stevedores or contractors. The governments of all progressive countries tried to solve this problem after World War I and introduced measures for securing regularity of employment and proper payment of wages to the water-front workers. In India also the labour policy of the government was brought in line with that of most other countries in this respect with the passing of the Dock Workers (Regulations of Employment) Act of 1948. This Act which gave effect to the recommendation of the Royal Commission on Labour regarding decasualisation of dock workers, laid down that schemes should be framed for the registration of dock workers and employers with a view to ensuring greater regularity of employment and regulating the employment of dockers whether registered or not, in a port. In 1951 the government drew up Dock Workers (Regulation of Employment) Schemes for Bombay and Calcutta. The Calcutta Dock Labour Board was constituted in September, 1952 and the scheme was implemented with effect from October 5, 1953.²⁷ The scheme limited the functions of the Board to stevedoring workers and stevedores only since the workers directly under the port authorities were already enjoying a greater amount of decasualisation. The establishment of the Dock Labour Board added a new chapter to the history of Calcutta port labour.

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K. N. SHARMA

Social Watershed of Entrepreneurial¹ Growth in India

THE rise of indigenous, manufacturing entrepreneur is most crucial in a society like India where private sector as well as public sector is encouraged to contribute its share to economic development. In fact the capital and human resources for industrialisation are so limited in such societies that only if the governments concerned mobilise all the existing resources, industrialisation can succeed. Therefore, it is necessary to locate the sources from which entrepreneurs have been drawn and to know how their social watershed² can be broadened, so that the process of industrialisation is accelerated. In the case of India there is an additional reason: Articles 39(b) and (c) of the Indian Constitution have laid down that "the state shall in particular direct its policy towards securing that the operation of the economic system does not result in the concentration of wealth and means of production to the common detriment". The broadening of social watershed of entrepreneurship can go a long way in achieving this goal as well as in providing impetus to industrial growth.

Analysis of the growth of entrepreneurship in India can be undertaken under one of the several available theoretical frames. The oldest one is, of course, Marxian, which concentrates on the formation process of the bourgeois from the womb of feudal structure. Max Weber undertook the task of explaining the rise of capitalism and impliedly that of entrepreneurs, through religious values. McClelland emphasised motivation of the individual as the point of departure—the individuals with high need for achievement tend more than others to choose business careers.³ These theoretical approaches go a long way to explain the growth of entrepreneurship, but do not explain the

differential responses of groups to the opportunity or challenge provided by the commitment of the political system to industrialisation. In a multi-ethnic society like India an understanding of differences in the response of groups of categories of people will explain both the process of growth of entrepreneurship at group level and the resultant impact on the social structure itself. In recent years the frame of social system, which was largely treated as a stable equilibrium model, has been modified to explain social change.⁴ Without going into the details of the proposed modifications, we can briefly present the broad theoretical frame as it pertains to our problem.

The economic system operates within its environment which consists of intra-societal and extra-societal parts. In the intra-societal part the ecological, biological, personality, political and social systems of the society are included, while in the extra-societal environment international ecological, political, economic and social systems may be included. In the present analysis we have considered the ecological, political and social systems of intra-societal part and the economic system of the extra-societal part only.

These parts of the environment may create 'stresses' or 'disturbances' resulting in new demands. Some groups or individuals have to undertake the responsibility of organising inputs in the economic system to meet these demands. The initial change, which is an output, has repercussions in the environment through a feedback system, resulting in extending demands and the same process starts all over again. In positive terms the disturbances are actually the new opportunities, which are not likely to be perceived by all groups in the same way because of their differing interests, values and predispositions or orientations. The spatial factor in the seizing of opportunity by a group is also important in a big country like India. The disturbances or changes may not be initiated all over the country. Therefore, the groups which are located in the place where change is introduced are the first ones to be exposed and therefore the leading group is likely to emerge there. The channels of communication between the extra-societal environment and the groups on the threshold of the system are crucial in determining the group which may emerge as the leader. The channels of communication between the leading group and other groups influence the extension and direction of change in the second phase. The growth of entrepreneurship in India can thus be analysed in this perspective.

The Indian economic system, on the eve of the advent of the East India Company, can be characterised by a kind of *jajmani* system and flourishing urban and rural handicrafts. The East India Company, which can be treated as a part of the extra-societal environment, injected changes in the economy through the export of cotton, opium, food grains and other commodities. It initiated a new process of export of raw-material from India and import of manufactured items. This process had many intended and unintended

In 1677 Manjee Dhanjee received a contract for building the first large gun powder mill in Bombay for the East India Company. The Parsi foreman of a gun factory, belonging to the East India Company and situated in Bombay, started a steel foundry in Bombay in 1852. Thus the Parsis with differing occupational background were attracted towards industry.

However, the first cotton mills were started by Parsis belonging to the families of merchants like Cowasjee Nanabhoy Daver, who started the first cotton spinning mill, Cursetjee N. Cama, who was the chairman of the board of directors of the Oriental mill started in 1860, and Byramjee Jeejeebhoy a member of the same board of directors, who was a son of the big merchant Jamshetjee Jeejeebhoy and Maneckjee Petit, another member of the board of directors, who was one of the richest Parsi merchants in Bombay. The general manager and largest shareholder of the Oriental mill was Parsi Merwanjee Franjee Pandey who was the broker of three British firms in Bombay which were engaged in the import of textiles. The Parsi merchants were engaged in opium export to China, cotton export to England and cotton textile import from Manchester. This flourishing import-export trade gave an impetus to shipbuilding industry. The Parsis along with Muslim castes of Khojas, Memons and Bohras, and Gujarati Vaisyas had a significant share in the developing trade of Bombay as contractors, merchants, financiers and ship-builders.

The prominence of these groups in export-import business has a spatial dimension. The East India Company chose Bombay as the main centre for their import-export operations. Their trade could not be carried on without intimate economic relations with the local merchants, who were drawn to Bombay from various parts of Gujarat and Maharashtra. In the early part of the nineteenth century the main commodities of export were cotton and opium. After the Opium War of 1840 in the sixties export of opium to China dropped considerably. Thus, cotton became the most important commodity and as Bombay was close to cotton-growing areas of Gujarat, Maharashtra and Rajasthan, it developed faster than Calcutta which primarily concentrated on the export of jute. Bombay merchants, who were selling British made cotton yarn and cloth in the Middle Eastern and Chinese markets realized that cotton yarn could be manufactured with Indian cotton in Bombay at a cost lower than that in Manchester. However, in the Indian market they had to compete with British manufacturers under the terms favourable to them but export to China was not constrained by these factors. This opportunity was seized by the early cotton mill entrepreneurs.

Thus, the harbingers of Indian entrepreneurs accumulated capital through contacts with extra-societal environment, received opportunities from it and also got ideas for setting up industrial enterprises from it. The opportunities (or disturbances) provided by extra-societal environment created demands

consequences. Probably one of the major unintended consequences was the emergence of manufacturing entrepreneurs. Let us see which group among Muslims, Parsis and the various castes of Hindus could succeed in becoming the leader and why it could succeed in doing so.

PARSIS

The first spinning mill of India was set up in 1851 in Bombay. The first weaving mill of Bombay was started in 1860. The credit for initiation of these enterprises goes to the Parsi community which maintained a lead in manufacturing enterprise upto 1915. Out of a total of ninety-six mills in 1915, forty-one were built by Parsis, twenty-three by Hindus, ten by Muslims and twenty-two by British citizens.⁵ Thus Parsis can be treated as the leaders of this change. Let us look into the characteristics and orientation of this group to find out how and why it differed from other groups.

A close-knit ethnic minority which had a glorious past and which was forced to a low social position⁶ like Parsis and which was not integrated with the larger society was most likely to assert for recognition whenever an opportunity came. Besides it had no cultural constraints in establishing commensal relations with others.

From the middle of the 8th century, when the first group of Parsis arrived in India, they settled in Gujarat. Although they were never integrated with either Muslims or Hindus a period of 1000 years of living in that area brought them closer to the native Gujaratis in many respects and they also accepted Gujarati as their language. All this paved the way for opening the channels of communication between them and Gujaratis which were helpful in involving Gujarati Vais̄yas in entrepreneurial growth.

The Parsis' occupational background was not homogeneous because during the Mughal period Parsis were engaged in agriculture, supply of timber and water to sailors, raising of cattle, handicrafts, perfumery etc. It is between the 17th and the 19th centuries that the Parsis moved to various trades and commercial occupations connected with the operations of the East India Company. After the establishment of the first factory of the East India Company at Surat the Parsis established all kinds of economic relations with the Britishers. They acted as brokers, suppliers of commodities and craftsmen in ship-building industry. The first ship-building establishment of the East India Company, on the West Coast, was also in Surat where from 1673 onwards, the Parsis built vessels for the Company.⁷ The most important of them was shipwright Lowjee Nushirvan, who migrated to Bombay around 1735 to take charge of the work at the Bombay docks. . . . "He was the ancestor of the Wadias, a family from which came many leading shipbuilders of Bombay and later on, at the close of the 19th century, a number of big industrialists".⁸

which were met by this group. Its status of a peripheral minority community and orientation in the Indian social system prepared it for playing the role of the leader.

GUJARATI AND MARWARI VAIŚYAS

The Vaiśyas, whether Marwari or Gujarati or belonging to any other region of India or Jain religion have traditionally been engaged in commerce. From commerce to industry is a natural occupational mobility. That is why merchant-entrepreneur figures prominently in most of the societies studied in recent times.⁹ However, in India the entry of Gujarati and Marwari entrepreneurs is preceded by that of Parsis, and between the two the Gujarati traders entered industry first, but the Marwaris succeeded in establishing industries almost all over India, and not the Gujaratis. Before explaining the role of Gujaratis and Marwaris in the growth of entrepreneurship in India, it will be proper to discuss the role of caste in this respect.

Caste is one of the best institutions for communication of ideas horizontally. The members of a caste, once they succeed in a new venture, help other members to move in it. "One may also assume that this practice was a direct economic condition of the very existence of the trading and money-lending castes".¹⁰ A member of Gujarati or Marwari Vaiśya caste could borrow money from rich members of the caste on easy terms and use it in marketing or money-lending operations. This mechanism helped the Vaiśya castes as a group to monopolise trade and money-lending. It can be safely presumed that this caste function was extended to the field of industry.

However, Vaiśyas were constrained in establishing intimate contacts with foreigners because of restrictions on commensality of food, though Gujarati Vaiśyas, as they were living on the coast and trading with foreign countries, were exposed to foreigners since long and, therefore, they had more facility in dealing and communicating with foreigners. They also had intimate social relations with Parsis. Besides, the operations of the East India Company and the Mughal rulers also affected them differentially. Before the 19th century both Marwaris and Gujaratis benefited from the great trade route starting from the coast of Gujarat, passing through Rajasthan and terminating in Delhi. It became unimportant in the beginning of the 19th century, because of the opening of new trade routes by the East India Company. Although local trade in Rajasthan was brisk, it afforded extremely limited opportunity to Marwari traders and money-lenders. Therefore, they had to migrate to other parts of India. In Northern India, i. e., Bengal, Bihar, U. P. and Delhi, Marwaris were already settled during the Mughal period. They had intimate connections with the administration in the form of suppliers and financiers to the Mughal army and also as traders. Their migration to various parts of North India and their contacts with Mughal

rulers were largely due to the proximity of Rajasthan to Delhi and other parts of North India, where they could spread their network of trade and money-lending which helped the new wave of migrants to settle down and operate in these parts. They also migrated to Maharashtra around the middle of the 19th century and played an important part in the credit system of Bombay in which they were firmly established by the beginning of the 20th century. Their concentration on inland trade, successful migration and engagement in money-lending and trade in Northern India, lack of experience in foreign trade and absence of contacts with Parsis created a situation in which they could not seize the initial advantages of industrialisation, though the migration of the first wave of Marwaris in Northern India and caste solidarity gave them a favourable opportunity for money-lending and inland trade without any competitor.

In comparison to Marwaris the migration of Gujaratis was restricted and unsuccessful. As Gujarat started producing cotton, as a result of its increasing export, it had to import food grains from U. P. and other parts of North India. Therefore, several big firms of Gujarati bankers and businessmen operated in these parts. "The Gazetteer of the United Provinces contains many references to the impoverishment, indebtedness or even the ruin of many Gujarati banking-houses. It seems that in the United Provinces (now Uttar Pradesh) the Gujarati bankers were unable to adjust themselves to the new colonial conditions because they did not have at their disposal a sufficiently widespread network of money-lenders in the countryside",¹¹ because such a network of Marwaris, who were naturally supporting each other, was already well-spread. The Gujaratis thus remained confined to Gujarat and Maharashtra. In the beginning, therefore, when the Marwaris arrived in these parts they were at a disadvantage in comparison to local people. But soon they succeeded in pushing the local people out of money-lending. Therefore 'one can assume that the indigenous merchants of Bombay were induced to invest their accumulations in industry as a result of a certain amount of competition by merchants hailing from the interior'.¹²

Later, of course, Marwaris acquired a significant position in India's industrial development. In the beginning of India's industrialisation they started out by participating in the revival of small industries in the inland parts through handing out raw material to the artisans to be worked up for a definite payment, in setting up small industries for the processing of agricultural raw material, specially cotton and in the large scale industries through collaboration with the British as their junior partners (as shareholders and commercial agents). Marwaris started setting up cotton mills in such inland areas where they had no competition with either the British or Gujarati or Parsi entrepreneurs. Even in an inland city like Kanpur the Marwari businessmen entered industry around 1910. Gradually they enlarged their

industrial activities after the First World War. It is only after independence, when the British industrialists left India, that they dominated the Kanpur industry,¹³ by purchasing majority shares of these industries. One can presume that this phenomenon has been repeated almost all over India.

It is not only the opportunity to accumulate capital which gave an edge to the Vais̄yas over other castes, but also their intimate contacts with the East India Company. Lieutenant-Colonel W. H. Sleeman declared in 1844: "there is no class of men more interested in the stability of our rule in India than that of the respectable merchants; nor is there any upon whom the welfare of our government, and of the people, more dependent".¹⁴ During the rising of 1857 the Gujarati and Marwari businessmen provided financial support to the East India Company and protection to British nationals for which they were amply rewarded. These contacts were extremely useful in their entering into industry.

Let us now look into the kind of occupational backgrounds from which the early Gujarati entrepreneurs came. One of the directors of the first cotton mill of Bombay, established in 1860, was Vurjivandas Madhowdas who belonged to the Kopal Bania community. He was closely connected with the financial interests of the Britishers and occupied the post of a director of the Bank of Bombay. The weaving mill 'Royal' was started by Kesowjee Naik. Both he and Morarjee Gopaldas, a director of the 'Great Eastern', were members of Bhatia community. After the Cotton boom of 1861 many cotton merchants, who had made their fortune during this period, entered industry. Thus at the close of the 19th century the merchants who collaborated with the British and formed the top strata of Bombay continued to strengthen their position in the industry of the town.¹⁵

The response of Marwaris and Gujaratis to the opportunities was influenced by both intra-societal and extra-societal parts of the environment. The closure of the old trade route gave differential opportunities to Gujaratis and Marwaris. The Gujaratis entered in export business and later in industry, while Marwaris concentrated on inland trade and money-lending. To a great extent this differential was caused by spatial factors. The Marwaris succeeded in migrating and capturing inland trade; the Gujaratis were driven out from inland and had to face another 'disturbance', the resulting situation was, therefore, met by investing in industry. In the second phase Marwaris also leaned toward industry, but mainly in the areas where they had no competition from the established entrepreneurs. The orientation of groups, caste solidarity and traditional occupation resulting in opportunities for accumulation of capital prepared these groups to play an equally important role in industrialisation, but the Parsis stole a march over both of them.

BRAHMAṆA, KAYASTHAS AND KṢATRIYAS

The Brahman castes have traditionally been engaged in priesthood, teaching, land-ownership and bureaucracy, and the Kayasthas in bureaucracy and land-ownership. The Kṣatriyas were either rulers or landlords. None of these groups were ever engaged in trade or commerce. However, the lack of indigenous Vaiśya community in the caste structure of a region like Maharashtra could encourage any caste, which had resources, to engage in trade and money-lending. According to Gadgil, Brahmans were engaged in trade and money-lending even in the early parts of the 18th century in Maharashtra.¹⁶ Elsewhere the Brahmans were not engaged in trade and money-lending to any noticeable extent. The Kṣatriyas and Kayasthas were not engaged in these occupations anywhere. Ownership of land was, however, common among these three castes.

These castes considered themselves superior to Vaiśyas and despised their occupations. Besides, both Brahmans and Kayasthas depended on education for their success in teaching and bureaucracy. The facilities for English education opened new opportunities of employment in the bureaucracy of the East India Company and newly opened educational institutions. That is why they became pioneers of Western education in India.¹⁷ Generally speaking, the Brahmans and Kayasthas were not attracted towards industry. Those who moved to industry either concentrated on small industry or failed miserably in large scale industry and mining. Very few of them succeeded in real sense. The number of Kṣatriyas and similar warrior castes like Marathas has also been negligible in industry.

In Maharashtra although Gujarati and Marwari money-lenders predominated, still local Maratha and Brahman landlords played an important role in money-lending and trading. Several Maratha firms were operating in Nagpur, Poona and other towns. These firms were engaged in the purchase of grains and cotton from peasants and advancing loans to them. The small capital thus accumulated was invested by some in small scale industries like bidi, metalwares, furniture, processing of cotton for export to foreign countries via Bombay and so on. Besides, most of them belonged to the families of land-owners, which provided the financial base for occupational mobility. But they could not succeed entering in large scale enterprises, because of many handicaps. One reason was that they did not have direct contacts with the East India Company, which were necessary for acquiring information about industry, receiving stimulation to set up industries and amassing profits through trade which could be invested in industry. Spatial and social distances were important constraints. Bombay, the hub of industrial and commercial activities, could not diffuse new ideas in the absence of rapid and mass media of communication. In such a situation communication through caste channels was easiest. It was easier for a Vaiśya living in a distant

town to receive communication from a Vaiśya of Bombay, than from a Brahman or Maratha. Besides, 'the agrarian policy of the British turned the pecuniary resources accumulated by the urban propertied strata in Maharashtra as in the whole of India, towards landed property'.¹⁸

The Maratha princes of Baroda, Indore and Gwalior encouraged Indian and British industrialists to set up industries in their states by providing all kinds of facilities at the level of infra-structure. They also purchased shares in big industrial enterprises, but could not succeed in promoting successful industries themselves.

In Bengal the British entrepreneurs left fewer opportunities to Indians to set up industries. Besides, the Permanent Settlement made investment in land quite lucrative. The rich Indians of Calcutta lent money to the British entrepreneurs and were satisfied, if in return they secured any employment. It was due to the occupational orientation of Brahman and Kayastha castes. Besides, the competition with the British merchants and entrepreneurs was unfavourable to Indians and, therefore, they could not venture to invest in industries, while it was absolutely safe to invest in land. However, some Brahmans and Kayasthas did start a few industries. According to Mukerjee, before the First World War 367 enterprises (which were small in comparison to the British owned industries) belonged to Indians out of which 61 belonged to Brahmans, 18 to Sikhs and 19 to Marwaris.¹⁹

The industrial activity of Indians in Bengal started at the close of the 19th century and it was directed mainly towards small scale industry because in coal mining the Bengali entrepreneurs had to compete with the British owners of big mines and the British bulk consumers of coal like the railways and jute mills. Therefore, they were either squeezed out of large scale enterprises in general or were precluded from entering them.

Thus in the case of Brahmans, Kṣatriyas and Kayasthas the opportunity provided by the extra-societal environment was restricted by the intra-societal environment. The orientation of these caste groups towards salaried jobs and land-ownership, and lack of experience in export trade precluded them from assuming the role of leader. Besides the disturbances in the Indian economy caused by the operations of the East India Company did not affect their traditional occupations. Instead, it provided them with opportunities in line with their traditional occupations. The monopoly of jute industry and mining in the hands of the British entrepreneurs and better returns in investment in land obstructed the groups as such from entering in industry. However, social and economic contacts with the British and the resulting channels of communication did influence them to a certain extent. The social structure of Maharashtra region encouraged the Maharashtra Brahmans to enter in small scale industry. Thus in the cases of both Bengal and Maharashtra the spatial factor also played its role in limiting participation of these groups.

THE MUSLIMS

The Muslims have been a minority community in India, but their social position in Indian social structure differs from that of the Parsis. The Muslims, who enjoyed political power, lost it, as well as most of the export business they had, to the East India Company. They were, therefore, hostile to the Britishers. The Britishers were also suspicious, if not hostile. Therefore, there were psychological and social barriers to the establishment of intimate contacts between the Britishers and the Muslims. They did not participate effectively in the operations of the East India Company. They even opposed English education in the beginning. In the later half of the 19th century with the efforts of Sir Saiyyad Ahmed Khan a process of accommodation set in. By that time Parsis and Hindus entrenched themselves in commercial and industrial operations.

Besides, accumulation of capital was not easy for Muslims. Money-lending, which benefited the Vaiśyas to accumulate enough capital for promoting industrial enterprises, is prohibited by Islam. The Muslim feudal lords, Nawabs, senior government officials and military officers were generally leading a life of luxury and, therefore, they could not accumulate capital for entering into commercial relations with the East India Company and also into industry. However, Gujarati Muslim castes like Bohras and Khojas, who were traditionally engaged in export to the Middle East and Africa, were in a position to enter into commercial relations with the company and later in setting up industries in Bombay and elsewhere. The Bohras and Khojas are in fact, on the periphery of the main community of Muslims. Their customs, practices, and following of Hanafi sect distinguish them from others. Therefore, from our point of view they cannot be treated as representatives of Indian Muslims.

In Bombay, in the beginning of the 19th century out of 53 firms, Bohra Muslims owned four. In the sixties of the 19th century the first Muslim Khoja millowner, Kassumbhoy Dharamsey, appeared. Before entering industry he was engaged in cotton trade. He was followed by A. Habibbhoy who was one of the directors of the Bank of Bombay. In 1888 Ebrahim Curimbhoy started his first mill in Bombay. He also entered in industry from import-export business. He set up a number of mills for processing cotton outside Bombay. In 1915, out of 96 cotton mills the Muslims owned only 10 units.

The nature of leather industry, which grew as a result of the requirements of the Company was such that only Muslims could succeed in entering it. The upper castes of Hindus could not be attracted towards it, because of the belief in the pollution carried by hides and skins. The Chamars were so poor that they could not even think of setting up of an industry. Of course, they remained in leather industry either as workers or as owners at cottage

level only. Before the advent of modern leather industry Kanpur specialised in leather tanning at small scale level. In 1859 a government leather and clothing factory was established. It was followed by about half a dozen units set up by private British and German entrepreneurs. The first Muslim who entered this industry in 1896 was a partner of a German entrepreneur. Now most of the Kanpur tanneries are owned by the Muslims.²⁰ Their contacts with the British entrepreneurs and experience in leather trade paved the way for their entry in leather industry although it was late.

Generally speaking, the Muslims, because of their political, economic and religious orientations could not come forward in a big way. But the Muslim castes like Khojas and Bohras have been traditionally engaged in commerce, especially export. They were located in Gujarat where industrial enterprise was initiated first. Their religious and business orientation and probable contacts with the East India Company and other Indian business men must have helped them entering into industry. The development of leather industry was an opportunity in which they had no Indian competitors because of the nature of the industry, but they entered this industry also quite late. Probably the British monopoly of this industry coupled with their orientation restrained them.

ARTISAN AND PEASANT CASTES

In many countries, including western, artisan-entrepreneur has been as prominent as merchant-entrepreneur²¹ but the colonial economy operating in India sucked the resources of artisans to such an extent that even eking out bare subsistence became a problem for Indian artisans. Therefore, the castes which have been traditionally engaged either in cultivation or in manufacturing articles did not have resources to enter industry. Control of the export market by the East India Company and dwindling resources of Nawabs, Rajas and other feudal lords who were buying luxury articles manufactured by the urban artisans crushed urban handicrafts. The classes which started acquiring wealth as a result of expanding trade and industrialization started purchasing and using European goods to distinguish themselves from others, because they became symbols of prestige and power in the contact of British political and economic elites. Thus they also could not give support to the dying indigenous industries. The money-lending operations of Marwari, Gujarati and other money-lenders and traders forced many of them to become agriculturists or to struggle hard for survival in their own industry. As agriculturists also they could not free themselves from the clutches of money-lenders. Therefore, artisans and peasants could not have the necessary economic resources to run industries, even if they had direct contacts with the European entrepreneurs.

However, towards the close of the 19th century many small scale

industries were revived in Bengal, Maharashtra and elsewhere. After the cotton boom of 1861 the peasants started demanding industrial commodities. This resulted in the growth of urban handicrafts in Maharashtra. Handloom industry started developing gradually, but still the merchants and money-lenders were the only people who could accumulate profits through this revival and not the artisans. In Bengal, the early part of the century, according to Mukerjee²², handloom industry recovered in these regions where it catered to the local demands. These artisans were also in the clutches of traders and therefore, they also could not think of starting their own independent industry on modern lines. A few artisans like Shimpis and Kansars (tailor and metal-worker castes of Maharashtra) in spite of such strangulating environment, did succeed in establishing a few industries, but they never succeeded in establishing any large enterprise.

In the above historical analysis only such groups have been selected for consideration which were spatially located in the regions of early industrialisation and whose participation or lack of participation was significant. For want of space and data a detailed analysis has not been undertaken. However, it brings to focus how opportunities were provided by the extra-societal environment and the orientation of groups affected their participation in industrialisation.

In the background of this historical perspective of growth of entrepreneurship, let us examine the contemporary trends in India. In recent years several studies have been conducted in various parts of India.²³ In this paper only six studies have been taken as the basis for analysis and generalisation. In Table 1 the castes which have the traditional occupational background of trade, commerce and money-lending outnumber others (58.2%). The next important caste category, supplying maximum number of entrepreneurs, is that of artisans and peasants. Thus these facts support the hypothesis that merchant-entrepreneur and artisan-entrepreneur predominate (74.2%) all other types. However, the emergence of artisan and peasant-entrepreneurs in the contemporary phase of industrialisation in contrast with the early phase of industrialisation has to be noted. In this group the Ramgarhia Sikh artisans dominate. We shall consider their emergence along with the emergence of Punjab as a leading industrial state after independence. Although other groups are also entering industry, the number of Kayasthas, Christians and tribals is almost negligible.

We may also consider the migration of entrepreneurs from the region of their origin to other regions, because as after independence the governments of all States are trying to spur industrial activity, it is significant to find out if the groups which entrenched themselves in industry are the same spreading in all States and seizing the opportunities or new local groups are emerging on the scene. In Madras three entrepreneurs migrated from other parts of India, i.e.,

TABLE I

Caste Background of Entrepreneurs²⁴

Place of study	Total studied	Total with ascertained castes	Brahmans	Kṣatriyas including Jat Sikhs	Kayasthas	Khatris including Arora & Khatri Sikhs	Vaiśyas including Jains	Artisans & peasants including Ramgarhia Sikhs	Muslims	Others including Christians and tribals
Madras	52	49	12	21	—	—	8	5	1	2
Hyderabad	78	65	x	2	x	x	12	x	45	6
Rajkot	42	42	3	1	x	x	17	19	x	2
Delhi	23	23	2	2	x	15	3	1	x	x
Ludhiana	200	200	x	x	x	30	123	47	x	x
Kanpur	81	76	10	1	2	23	35	x	3	2
TOTAL	476	455	27	27	2	68	198	72	49	12

Gujarat and Punjab. Hyderabad had 23 entrepreneurs from outside Andhra Pradesh; 11 came from Gujarat and Maharashtra; 8 from Punjab, Delhi, Rajasthan and U.P.; and 4 from Mysore and Kerala. Rajkot did not have any immigrant from outside Gujarat. Ludhiana had immigrants from West Pakistan only. In Delhi the same groups predominated as in Ludhiana, and they seem to be migrants from Punjab. In Kanpur the entrepreneurs hailed from Rajasthan (16), Punjab (27), Gujarat (5) and Bengal (2).

An entrepreneur is not likely to migrate from his own region to another region for starting small scale industries, unless he has been forced like Punjabis, or he is settled in that region for quite some time. But we do find immigrants in Madras, Hyderabad, Delhi and Kanpur. Kanpur study, unlike others, covers large scale industries also. Besides, Kanpur had an early start of industrialisation (1861) like Madras. In both of these places either the entrepreneurs have immigrated to start industrial units or some migrants have become entrepreneurs. In Hyderabad even in the small scale industries the immigrants from outside Andhra Pradesh hold a dominant position in the sense that in the factories with a fixed capital above Rs. 25000/-, 57% are owned by them and they account for 88% of the fixed capital invested in the industrial units of these strata.²⁵ It will be worthwhile to investigate how the policies of Andhra Pradesh have encouraged immigrants. In Delhi, of course, the policy to rehabilitate migrants from Pakistan has helped them in setting up industries.

Besides caste, as we have seen earlier, occupational background of families of entrepreneurs is also relevant. In Table 2 an effort has been made to bring the data of the six studies at a comparative level. Rajkot and Ludhiana studies do not throw light on the occupations of fathers of the entrepreneurs.

From this table also the same picture emerges. In 43.7% cases the fathers were engaged in business and in 21% cases in industry itself. However between sixties of the last century, when only businessmen were entering industry, and the sixties of this century there is a discernible change. Employment in industry has given many persons the necessary knowledge and confidence to start industries. Engineers, teachers, doctors, senior and junior government officials, landowners and cultivators have also contributed more than one-third entrepreneurs of our sample. Thus progressively the social watershed of entrepreneurs is broadening.

Besides the occupation of father, some times one's own previous occupational background provides the necessary training and experience for venturing in industry. In certain cases, however, it has no relationship with industry.

TABLE 2
Occupational Background of Fathers of Entrepreneurs

Place of study	Industry	Business	Artisanship and employment in handicrafts	Empolyment in industry or trade	Engineering	Other profes- sions & employ- ment	Land ownership and cultivation	Miscellaneous	Total ascer- tained	Total studied
Madras	5	17	5	1	1	3	8	6	46	52
Hyderabad	—	42	—	17	—	—	—	—	59	78
Rajkot	—	42	—	—	—	8	2	—	23	23
Delhi	—	13	—	—	—	—	—	—	0	200
Ludhiana	—	—	—	—	—	—	—	—	80	81
Kanpur	39	19	—	—	—	—	4	18	80	81
TOTAL	44	91	5	18	1	11	14	24	208	476

TABLE 3

Previous Occupational Background of Entrepreneurs

	Madras	Kanpur	Total
Rural artisans ..	5	1	6
Businessmen ..	18	19	37
Factory workers, Technicians ..	7	1	8
Graduate engineers ..	12	2	14
Manufacturers ..	4	46	50
Cultivators/Landowners ..	4	—	4
Salesmen ..	1	—	1
Journalists ..	—	1	1
Teachers ..	1	—	1
Miscellaneous backgrounds ..	—	11	11
	52	81	133

Note: It was possible to ascertain the occupational background of entrepreneurs from Hyderabad and Delhi only. In Rajkot 12 out of 42 were in business and among the rest a majority was of industrial workers.²⁶

Businessmen still predominate but many entrepreneurs have inherited manufacturing enterprise from their fathers. Factory workmen, technicians, salesmen, and graduate engineers acquired experience of some aspects of industry which helped them in entering in industry. Only 18 out of 133 had a background which was not related to any operation of production or its sale. Although their details are not available, still it can be presumed that some kind of contact and resulting communication of ideas must have paved the way for their mobility to manufacturing entrepreneurship. Merchants, though important, are not the sole ancestors of manufacturing entrepreneurs in Europe. “New line craftsmen” such as mechanics, electricians, etc., as well as “old-line craftsmen” such as weavers, dyers and locksmiths are the second most important group.²⁷ Other occupational groups have also contributed to the growth of entrepreneurship. In India, although in the first phase mainly merchants came forward, yet new entrepreneurs are being drawn from many castes and communities in all regions of India.

For entering into industry capital is one of the most important factor. In the analysis of historical data we have seen that traders in general and importers and exporters in particular accumulated capital which was invested in industry.

It is in this respect that business contributes most to industry. Berna reports that there was very heavy dependence of would-be entrepreneurs on personal or family funds for initial financing. Only five of the firms, whose source of initial capital could be ascertained, raised capital by selling shares to outsiders, and only eight reported loans as principal source of initial capital.²⁸ In Delhi in the case of 14 firms financial aid from relatives was an important source of capital. Only in nine cases personal savings or resources were major sources.²⁹ In Kanpur all the 81 entrepreneurs had their own funds for investment. However, 29 entrepreneurs also took loans either from friends and relatives or government agencies or sold shares in the market.³⁰ Thus the most important source is one's own savings or the financial support one receives from family members. Borrowing from outside the kin-group is limited, and this is a major factor inhibiting many groups in contributing to the growth of entrepreneurship, because they do not have initial source of capital in their own hands.

CONCLUSION

On the basis of both historical and contemporary data we can say that the growth of entrepreneurship can be divided into two phases: initiation of entrepreneurship and broadening of social watershed of entrepreneurship. In the first phase Parsi community played the role of leader closely followed by Gujarati and Marwari Vaisyas. The demand for the role of entrepreneurs was created by factors exogenous to Indian economic system like the cotton and opium export trade, possibility of supplying cotton yarn to China with less cost if manufactured in India and thereby earning more profits and absence of such a possibility in India because of unfavourable competition with Manchester industries. This demand created an opportunity which was a disturbance in the Indian economic system. Seizing of this opportunity required a leadership which should take the responsibility not only for routine 'management' but for reorganisation of social structure itself.³¹ The emergence of Parsis as the leaders (in Parsonian term) or gatekeepers (in Eastonian terms)³² is related to their orientation vis-a-vis the orientation of other groups in Indian society. The differences in the orientation of various groups were caused by religion, language, caste system, differing experiences and spatial locations. Therefore, the opportunities provided by this situation evoked differential responses.

The immigrants from West Punjab had an experience similar to that of Parsis in many respects. 'The peasantry (of Punjab) was industrious and resourceful enough to earn a regular bounty of crops from what was formerly sandy deserts, once waters began to flow through an extensive network of canals. Over 40 years since the turn of the century the Punjabi people, whether in the low or middle strata, gained rapidly in prosperity. It was

against this background that partition suddenly unleashed upon the people damage, disruption and forced migration. Forced back once more into the crowded areas of East Punjab, they again stirred themselves to success in new fields of enterprise.³³ The intra-societal environment provided them with opportunities to rehabilitate themselves economically. Thus the enterprising efforts of Punjabis and the opportunities provided by the intra-societal environment helped the State of Punjab to achieve a growth rate of 7% as against a national average of 4.3% only. Not only in Punjab, but in Delhi, U. P. and elsewhere also they have played a significant role in industrial development.

Broadening of social watershed, the second phase in social change, is a result of the process of feedback of success of the leaders and change into the social system and development of new channels of communication cutting across caste barriers. It is true that caste and community play an important role in disseminating new ideas. Nevertheless, no caste or community can isolate itself from the rest of the social system. Employment in industry and management of sales of industrial goods roped in a large number of persons belonging to all kinds of groups in the industrial orbit. Technical education has also opened flood gates of knowledge which can be and is harnessed in setting up industries. The Directorates of Industries of various states provide all kinds of facilities and some governmental agencies offer technical advice. It appears that the policies of the state and central governments to open up communication of ideas and information regarding industry and to take over this function from various groups which were hitherto performing this function restrictively have drawn entrepreneurs from all kinds of groups cutting across the dividing line of group orientation. The encouragement given to small scale entrepreneurs has also helped to broaden the social watershed in the sense that persons with small capital, found at all levels of caste hierarchy and in all regions of India, can afford to look up to a career of manufacturing entrepreneur with good prospects.

NOTES AND REFERENCES

1. The classical schumpeterian view of an entrepreneur (Joseph A. Schumpeter, *The Theory of Economic Development*, (Trans.) by R. Opie, Harvard University Press, 1934, p. 66) is that the entrepreneur is the innovating individual who introduces something new into the economy. Such an innovator is rarely found in a developing society. Therefore, Berna has defined that 'he is the person who brings into existence a new industrial enterprise, either alone or in collaboration with others. . . . He is an adaptor and imitator much more than a true innovator. (J. J. Berna, *Industrial Entrepreneurship in Madras State*, Asia Publishing House, Bombay, 1960). Gadgil holds that innovating service of the entrepreneurial class is not required in an economy with a backward techni-

que. The task of the entrepreneurs, according to him, is not so much to innovate as to adapt and imitate, and he asserts that whatever may be his skill as financier or speculator, he has not been marked for progress in production techniques in India. (D. R. Gadgil, *Planning and Economics*, Poona, 1965, p. 95.) Innovators are not needed in the initial stages because advanced countries have already developed the required technology. Therefore, in this paper we have considered the promoters of industries and chief-risk-bearers in setting up industries as entrepreneurs.

2. The technical meaning of watershed in geography is 'line of separation between waters flowing to different rivers or basins or seas'. Popularly it means 'slope down which water flows'. It also means 'river basin' and 'catchment area of a river'. Here I have used the term 'social watershed' in the popular sense of denoting social catchment area or groups from which entrepreneurs are drawn. Besides the orientation of groups helps to draw the dividing line between such groups and others the members of which are drawn to other professions. By broadening of social watershed I mean the process by which many more groups are gradually drawn to entrepreneurship. In its final phase group orientation becomes less important in drawing people to entrepreneurship.
3. See Max Weber, *the Protestant Ethic and the Sprit of Capitalism*, (trans.) Talcott Parsons, Charles Schibner's Sons, New York, 1958 and David C. McClelland, *The Achieving Society*, Princeton, N. J., D. Van Nostrand, 1961.
4. See Talcott Parsons, "Some Considerations on the Theory of Social Change, Rural Sociology, XXVI (1961), No. 3, pp. 219-239. Mervyn L. Cadwallader, the Cybernetic Analysis of Change in A. Etzioni and E. Etzioni (ed.), *Social Change*, Basic Books Inc., Publishers, New York, 1964., pp. 159-164. David Easton, *A Framework for Political Analysis*, Prentice Hall, New York, 1965, and *Systems Analysis of Political Life*, John Wiley & Sons, New York, 1965.
5. V. I. Pavlov, *The Indian Capitalist Class*, People's Publishing House, New Delhi, 1964, p. 252.
6. According to Frayer, Parsis were enjoying a low social position during the Mughal period. Quoted in *Ibid.*, p. 89.
7. *Ibid.*, p. 146.
8. *Ibid.*, p. 147.
9. John J. Carroll, *The Fillpines Manufacturing Entrepreneur*, Cornell University Press, Ithaca, New York, 1965, p. 6.
10. V. I. Pavlov, *op. cit.*, p. 194.
11. *Ibid.*, p. 275.
12. *Ibid.*, p. 251.
13. D. D. Shukla, "History of Industrial Growth of Kanpur" in K. N. Sharma and R. T. Norman (eds.), *Research Cell Bulletin*, No. 2, IIT, Kanpur, 1966, p. 16.
14. Quoted in *ibid.*, p. 163.
15. *Ibid.*, p. 242.
16. D. R. Gadgil, *op. cit.*, p. 19.
17. B. B. Misra, *Indian Middle Classes*, Oxford University Press, London, 1964.
18. V. I. Pavlov, *op. cit.*, p. 348.
19. R. Mukerjee, *The Foundations of Indian Economics*, London, 1916, pp. 365-6.
20. D. D. Shukla, *op. cit.*, pp. 22-24.
21. John J. Carroll, *op. cit.*, p. 6.
22. R. Mukerjee, *op. cit.*, p. 162.
23. These studies do not form a representative sample of the universe. However, as they are spread over many parts of India, they do provide adequate basis for generalisations. These studies are: *Small Industry in a North Indian Town*, Ministry of Commerce and

- Industry, New Delhi, 1956 ; J. J. Berna, *Industrial Entrepreneurship in Madras State*, Asia Publishing House, Bombay, 1960 ; *Social Aspects of Small Industries in India : Studies in Howrah and Bombay* ; UNESCO Research Centre on Social and Economic Development in Southern Asia, Delhi, 1962 ; *Small Industries and Social Change : Four studies in India*, UNESCO Research Centre, Delhi, 1966. These four studies are of Delhi, Hyderabad, Rajkot and Ludhiana; V. N. Seth, "Study of Entrepreneurs in Kanpur City" in K. N. Sharma and R. T. Norman (eds.), *Research Cell Bulletin*, No. 4, IIT-Kanpur, 1967.
24. In the above table studies of 476 entrepreneurs have been referred to. As caste background of 21 entrepreneurs could not be ascertained, the background of only 455 entrepreneurs has been considered. Here it may be pointed out that Madras study is of medium-size industries, Hyderabad, Rajkot, Delhi and Ludhiana studies are of small scale industries, while Kanpur study covers all the three types—large, medium and small. Besides, it may also be noted that the figures of Kṣatriyas from Delhi include one Jat Sikh. Khattris, Aroras and Sikh Khattris have been bracketed together, because of similar traditional occupational background. Similarly Jains have been included in the category of Vais'yas, and Ramgarhia Sikhs have been included in the category of artisans. In the category of others both Christian and tribal groups have been included. The three entrepreneurs of Madras whose caste could not be ascertained are Gujaratis and Punjabis. 13 entrepreneurs of Hyderabad, whose caste could not be known definitely, belong to Kayastha, Harijan, Kanus, Maratha and Blacksmith groups. Five such entrepreneurs of Kanpur are Sikhs.
 25. *Small Industries and Social Changes*, *op. cit.*, p. 108.
 26. *Ibid.*, p. 163.
 27. Redlich "Entrepreneurship in the Initial Stages of Industrialisation", quoted by James J. Berna, *op. cit.*, p. 85.
 28. *Ibid.* p. 91.
 29. *Small Industries and Social Change*, *op. cit.*, pp. 47-48.
 30. "Study of Entrepreneurs in Kanpur city", *op. cit.*, p. 21.
 31. Talcot Parsons, "A Functional Theory of Change" in A. Etzioni and E. Etzioni (ed.), *Social Change*, Basic Books Inc., Publishers, New York, 1964, p. 94.
 32. David, Easton, "A System Analysis of Political Life", *op. cit.*, Ch. 6, pp. 86-99.
 33. *Small Industries and Social Change*, *op. cit.*, pp. 131-32.

Trends in Land Organization
(ownership and possession of Land etc.,
agricultural labour)

B. K. ROY BURMAN

Hundred Years in a Tribal Village—Totopara

TOTOPARA, a small *mawža* in Jalpaiguri district of West Bengal is situated just on the border of Bhutan. Previously a large tract of the district including Totopara was under Bhutia rule. This territory is known as the Western Duars. It passed over to the control of the British after the Bhutan war in 1868. In the present study, it is proposed to examine the socio-political changes that have taken place in Totopara after it came under the British.

Even after the Duars came under the British rule, it took some time before effective administration could be set up over the area. In 1886-94, a survey and settlement operation of the Duars was undertaken by Sanders. He found the Totos living at Totopara. According to him, they could not say whence they had come, but they claimed to have been there for many generations. Sanders noted that the Totos cultivated the land by slash and burn method; there were no *zamīndārs* to harass them and their assessments were light. During 1906-16 another survey and settlement operation of the Jalpaiguri district was undertaken by Milligan. An extract from his note on the Totos is placed here. "The tract of country known as Totopara is bounded on the north by Bhutan, on the east by Torsa river and on the South and West by Titi forest. It is an heavily wooded tract and out of 2,003 acres, the Totos keep in use for dwelling sites and cultivation some 300 acres only at a time. The soil is very poor and strong, except in the patches where the orange groves are planted. Their system of cultivation is like that of the Meches, only more so, in that they change their plots every second year owing to the sterility of the soil. They have a headman or mandal, who is recognised as such by government. The last incumbent whom I knew was Dangay and he is inclined

to be oppressive, in the matter of assessing the revenue, paying no share thereof himself (and he could not deny it) but rather making a handsome profit. To obviate this, I propose that the new assessment should take the form of poll-tax of Rs. 2/- per adult male instead of a lump sum of Rs. 105/- as had formerly been paid. In practice the revenue had always been collected by the mandal as a poll-tax on adult males, but none of them knew about what shares each of them had to pay and the mandal went about his duties under a cloud of suspicion. . . . Various attempts have been made to encroach on the lands of Totopara but these have all been defeated, and while it is true that only a fraction of the taluk is actually used by Totos at a time, I think all government officers who know the place would agree that to admit outsiders to this isolated and peaceful retreat would not merely upset the Totos altogether but would mean their speedy disappearance which would be a pity. I strongly recommend that they be allowed to remain in undisturbed possession of the whole of block of 2,003 acres and that all transfers, mortgages, sub-letting or other disturbing practices be totally forbidden and prevented by the district authorities. For the currency of this settlement the title will vest in the mandal and the assessment will be Rs. 2/- per adult male or Rs. 120 per annum in all. No lease has been issued to the mandal on this occasion as the peculiar nature of the tenancy do not fit in with any recognised form of lease in the Duars. If a lease were issued it must be in the mandal's name and as he is merely the representative of the community and as position of mandal is not hereditary, whereas the transfer of lands by inheritance is a recognized local custom, it seems desirable not to issue any lease".

In contrast to observations of Milligan, the following facts about the existing social situation at Totopara may be noted.

(1) About fifty years ago the orange groves began to die out ; at present there is practically no orange at Totopara.

(2) Though the Totos continue their shifting cultivation to some extent most of them have taken to settled agriculture with plough. The process of extending areas of settled agriculture has been greatly intensified during the last 20 years or so.

(3) As recommended by Milligan, the mandal holds the tenure of the territory of Totopara on behalf of the community as a whole. But whereas Milligan observed failure of several attempts to encroach on the land at Totopara, in 1956 there were about 300 Nepalis and 15 Beharis as against about 350 Totos at Totopara. At that time about half-a-dozen Totos were living outside Totopara. At present there are about 1,000 Nepalis, 20 Beharis as against about 400 Totos at Totopara.

(4) A welfare centre was set up at Totopara in 1951 and after that for some years vigilance was being maintained against the encroachment of the lands by the Nepalis, with little success although.

(5) In 1955, an anthropologist connected with the Tribal Welfare Department of the Government of West Bengal started his research at Totopara. For about four years he was in constant touch with the Totos and on several crucial occasions could intervene on their behalf with the government officials and others.

(6) In 1959, a cadastral survey was undertaken at Totopara and the occupations of the lands by individual cultivators—Toto and Nepali, were entered in the record of rights.

For a sociological analysis of the aforesaid facts, it would be necessary to look upon them as inter-related processes and not just as isolated events. For this purpose it will be necessary to have a fuller detail of the present day social situation of the Totos, so that the logistic of the same may be telescoped in the reverse to gain an insight about what happened in the past. It will also be necessary to check the logical construct with the traditions available among the Totos and their neighbours and with such written records as are available.

PRESENT DAY SOCIAL SITUATION OF THE TOTOS

Except where specifically indicated, the facts furnished here hold good till the beginning of 1960. After that the author has paid only short visits to Totopara and all the developments are not fully known to him.

As already mentioned Totopara is situated at the border of North-Bengal and Bhutan. The total area of the village is 32 sq. miles. With slight undulations and breaks for passing of streamlets, there are stretches of plain land, though full of thickets, trees and pieces of stones towards the south. The north is completely gagged with high hills and dense forests ; to the east flows the torrential river Torsa, to the south and the west is the Titi reserve forest, demarcated by the streamlet Haori. The nearest village is Ballalguri at a distance of about five miles on the other side of Titi forest. In the winter there is a difficult but tolerably bad track from Ballalguri to Totopara ; during the rains however there is nothing but the scarf of the jungles. Very recently it has been made jeepable. Seven miles to the west of Totopara is Lankapara bazar. A difficult track across the Titi forest with many ups and downs connects the two places. There is a bus service from Lankapara to Jalpaiguri—about 42 miles off. There is a third route. It is a foot track connecting Dalsingpara on the other side of Torsa. The distance is about four miles. It can however be used only for a short period. As soon as the rains start, the Torsa is in spate and becomes impossible. The nearest railway station from Totopara is Harhimara about 10 miles off on the other side of Torsa. But due to the uncertainties of Torsa, it serves practically no purpose for Totopara. For practical purposes the nearest railway stations are Dalgaoon and Madarihat, each at about the distance of 18 miles from Totopara.

There are a number of difficult foot-tracks from Totopara to Chonkuna, Dayagaon, Tadim etc. in Bhutan. The distances of all these places vary from five to seven miles. From these places again there are foot-tracks to the innermost parts of Bhutan. Till recently, during the winter, quite a large quantity of wares were carried from the markets in the plains to the interior of Bhutan through Totopara. Before Lankapara was connected with the outside world by a motorable road, the foot-tracks connecting the various centres in Bhutan with Totopara extended upto Chamurchi via Lankapara.

Beginning from a distance of five miles there are a number of tea estates around Totopara. These come into existence towards the beginning of the present century.

There are a number of communities in the region. To the north, inside Bhutan, live the Dayas at Dayamara, at a distance of about six miles. The Bhutias live further north. To the south, at Ballalguri live the Mech, and ex-tea garden labourers belonging to Santal, Oraon and other tribal communities of Chhota Nagpur. In the tea gardens live the labourers, hailing from Central India, Muslims, Bengali Hindus, Nepalis, traders from North India, and a few Europeans.

Inside Totopara till about 10 years ago, the Totos constituted the main population. Now the Nepalis outnumbered them several times. There are a few North Indian traders, and one or two officials from the other areas of West Bengal who are attached to the Welfare Centre.

The Totos name the different parts of the village differently. In the south-west where Haori meets the Torsa are Permading and Loha-Toto areas. To the north-east of the above is Arumpha and so on. These different areas are occupied by different clans or groups of clans. In the past it was only under special circumstances that the individuals belonging to other clans were allowed to cultivate in those areas.

The Toto houses are more or less clustered in the middle of the village covering an area of about $\frac{1}{2}$ mile in length and $\frac{1}{4}$ th mile in breadth with break in between. Within this area there are clan-wise demarcation of houses.

There is a Demsa, a community worship place at the south-east corner of the residential area of the Totos. In the Demsa, there are four community houses belonging to different groups of clans. Previously, there were larger number of community houses. Now, they have been abandoned.

In addition to the community houses, there were auxiliary houses of the different families at the Demsa. By 1960, excepting three auxiliary houses, the rest had been abandoned. The Totos have another set of auxiliary houses, which are constructed in the middle of cultivating fields and where some members of the family generally live during the cultivating period.

In contrast to the Totos, the Nepali houses are scattered over all parts of the village including the top of the hills requiring difficult climb. Again the

Nepali houses are found both in clusters and in isolation in the midst of the fields. Besides, they do not have the institution of auxiliary house.

There are five burial grounds of the Totos. These belong to different clan groups.

There is a market towards the southern parts of the Toto residential area, with three grocery shops and one tailoring shop. The grocery shops become more active during the winter, when Bhutias, Daya and Nepalis from Bhutan and also the people from other areas hub down at Totopara. The tailoring shop also becomes more active during that period.

The welfare centre is to the west of the Toto residential area. Previously, the area was covered with orange groves but now all have died away. Bench terraces have been constructed by the Nepalis in the area for cultivation of maize and paddy.

There are two traditional chiefs among the Totos, one is Gapu or Mandal, the secular chief, the other is Kaji or Suba, the religious chief. Until recently there was another functionary at Totopara, the collecting panchayat. This post was introduced by the British. Recently, statutory panchayat has been introduced in the area and a Nepali has been elected as the Sarpanch.

One important fact about the social situation of the Totos is that with reference to the pattern of consociation with the neighbouring communities, the Toto clans can be divided into two groups. In the first group, there are six clans out of the thirteen in total, who cannot eat food cooked by the women of any community other than Bhutia, Daya and Lepcha. In case of violation of the taboo they are to propitiate Ispha, the high god of the Totos by offering a red cock and some quantity of liquor. The Kaji or the religious head of the tribe belongs to this group. The assistants of the Kaji in ceremonial matters, called Deoshi, also belong to this group. The rest of the tribe belongs to the second group. The adult males of this group are called Mausi. The Gapu or the secular headman of the tribe is a Mausi.

There is another type of dual division of the tribe. The most important annual festival of the Totos is Mayu, which till about 15 years ago used to be performed with sacrifice of cow. During the festival the tribe is divided into two divisions, Orangbei, or people of the north headed by the Kaji and Wantengbei, or the people of the south headed by the Gapu. The composition of these two divisions for the purpose of the Mayu festival is not identical with that of the dual division which exists with reference to the commensal restrictions observed in respect of the various communities.

With this preliminary appraisal of the present day social situation of the Totos, an attempt will be made to reconstruct the position hundred years hence and the factors and the processes that have contributed towards giving shape to the present.

THE TOTO SOCIAL SITUATION DURING THE BHUTIA RULE

For reconstructing the Toto social situation during the Bhutia rule, the most important fact to be kept in view is that Totopara was situated at a key-point on a trade route which was of vital importance for maintaining the supplies of rice and salts from the plains of India to Bhutan.

To the north of the Totos lived the Tibeto-Chinese speaking Bhutias and their satellite tribes ; to the south lived the Bodo speaking Koch-Mech tribes. According to S. K. Chatterjee, in the middle of the 15th century A. D., part of the plains in the foot hills of Bhutan was occupied by the Bhutias. It appears that in the 17th century the people from Koch Behar occupied this territory. The table was again turned at the beginning of the 18th century. But there was never peace in the area till the final occupation of the Duars in 1868.

The published records show that during their raids in the plains, the Bhutias used to take war captives. Many of the Totos believe that they were war captives of the Bhutias. But they do not have any consensus of being war captives taken from a particular community. Rather, there is a submerged belief that the different Toto clans originally came from different areas. There is slight difference, clanwise, in food habits and some of the rituals. These tend to confirm the belief in diverse origin of the Toto clans.

The Totos have another tradition, viz., that during the Bhutia period the different clan groups used to live in different places and that they were annually brought together during the Mayu festival at Deingcho garden, about six miles north of Totopara inside Bhutan. After the festival they used to be organised for hura or forced labour, for carrying rice and salt from markets inside Koch kingdom to Bhutan. It was only a few generations before the British conquest of the Duars that all the Toto clans were settled at Totopara. The demarcation of clanwise or clangroup-wise territories in Totopara marks the original divisions and groupings of the people before they came to Totopara.

It appears that the Totos were forged as a single tribe by the Bhutias out of the war captives of diverse origins. Through making their participation in the various rituals compulsory, the Bhutias ensured that the community life was integrated centering the rituals. Even now, a Toto failing to attend the community festivals is forced by the elders of the community to pay a fine.

It was a matter of vital importance for the Bhutias to have a group of slaves who would be loyal to them through bonds of rituals, but at the same time who would not be completely identified with them, so that they could maintain the supply line intact in the hostile territory of the Koch kingdom.

The Totos were divided into two groups—the southerners and the northerners. The southerners, under the control of the Gapu were required to

carry commodities from the markets inside Koch kingdom upto Totopara and the northerners were required to carry the commodities, under the control of the Kaji, to places inside Bhutan. The dual division of the community with reference to their commensal restrictions followed this divisions for the purpose of rendering hura or forced labour to the Bhutias. As noted earlier this dual division is not identical in composition, with the dual division of Orangbei and Wantengbei, that comes into focus during Mayu festival and a few other minor festivals. It is difficult to say whether the Bhutias deliberately arranged the two types of dual divisions to be different in composition. But it served their purpose very well. It ensured over-lapping loyalties to the chief of the north and the chief of the south in two different contexts and at the same time it ensured partial closeness of a section of the Totos with the hostile Koches so that they could maintain the supply line intact even when the armies of both the kingdoms were confronting each other.

Tossing between the two warring masters, it was a practical necessity for a tiny people like the Totos, to maintain peace and social intercourse with both to ensure its physical survival. The arrangement of segmental closeness with either served their interest also, very well.

It however appears that the Totos were becoming tired of their slavery under the Bhutias. Even now they bitterly relate how their ancestors had to carry on forced labour, day in and day out, hardly getting any opportunity, to earn their livelihood.

Many Totos believe that at the time of the Bhutan war, their ancestors secretly joined the Mechs to help the British. It is difficult to say how far correct this belief is. It is however certain that the Totos of that time looked upon the British conquest as a deliverance from the oppressions of the Bhutias.

IMMEDIATE CONSEQUENCES OF THE ESTABLISHMENT OF THE BRITISH RULE

A. Establishment of the Physical and Social Identity of Totopara

The boundary between Bhutan and British India was demarcated by Dannell in 1866-67. It passed through just the north of Totopara. But there was no reserve forest to demarcate the boundary of the village to the south and the west. During 1872-73 to 1878-79, the different forests in Duars were notified as reserved. The boundary of Titi forest therefore must have been demarcated at that time. This completed the process of defining the boundary of Totopara. But this also meant another thing. Even after the Totos settled in Totopara, there were the Rabha people in parmanding area of Totopara. They had to carry on shifting cultivation not only within the present territory of Totopara, but also in some parts of Titi reserve forest, by the side of Haori. After the demarcation of the boundary of Totopara, they were not allowed to practise shifting cultivation within the area of the reserve forest. Therefore

they left Totopara. It is only after this that the social equation of the place with the Totos was completed and Totopara became Totopara.

B. Emergence of Totopara as a Sacred Entity

Even after the settlement of the Totos at Totopara, their place of worship continued at Deingcho garden, till the demarcation of the boundary between Bhutan and British India. On the demarcation of the boundary, Deingcho garden fell inside Bhutan. The Bhutias therefore did not allow the Totos to carry on their festival at Deingcho garden any longer. They burnt down the community houses of the Totos. Even the auxiliary residential houses that the Totos had built for their stay when they visited the place for the performance of their festivals were burnt. The Totos therefore were forced to build new community houses inside Totopara. Though auxiliary houses for residential purposes were not necessary, they imparted ritual significance to the same, because of their association with community festival houses at Deingcho garden and constructed a complete set of auxiliary houses as well, inside Totopara.

Thus Totopara which was previously only a convenient place of residence in the interest of the forced porterage work under the Bhutias, became the sacred land of Ispha, the high god, with the establishment of the community festival houses and the sacred auxiliary houses.

The emergence of Totopara as a sacred entity, in its turn seems to have reiterated another tradition of the Totos, which had an altogether different significance in the past.

During the period of their slavery under the Bhutias, it was considered to be a serious offence for a Toto to remain out of Totopara for more than seven days. Obviously this rule was introduced to prevent the chances of desertion. After the passing over of the control of Totopara under the British, this rule lost its functional significance for civil purposes ; but it assumed a new ritual significance. If the Totos no longer carried the load of the Bhutia masters, they carried the load of Ispha, the high god. It became sinful for a Toto to remain outside the sacred land of Ispha for more than seven days. Even one decade ago, one Toto had to perform a penance for remaining outside Totopara for a few months, before he was taken back in the community.

C. Isolation as a Result of the Expansion of Communication

Paradoxically, for a long time, the expansion of communication increased the social distance between Totopara and the rest of India. As mentioned earlier, during the Bhutia rule, Totopara was a key-point in the trade route from India to the South Western side of Bhutan. After the establishment of the British rule, and specially after the establishment of the tea-estates when net work of roads were built up, making it possible for automobile vehicles

to reach places like Lankapara, Dalsingpara etc., Totopara lost much of its importance. Besides, in the context of the immensely better communication which came up elsewhere, the communication at Totopara came to be looked upon as extremely backward. From an important centre in the international trade route, connecting parts of India and Bhutan, Totopara was turned into an outlying, inaccessible area.

During the last few years the communication of Totopara has considerably improved. It has been made accessible by jeep. But the communication inside Bhutan also has immensely improved through other routes. It seems that there is hardly any possibility for Totopara to recover its lost ground.

D. Intensification of the Dichotomy of Sacred and Secular Chiefships

As already mentioned, during the Bhutia rule, there were two chiefs among the Totos. One was designated as Kaji, who had to manage porterage operations towards the north ; the other designated as Gapu who had to manage the porterage operations towards south. Besides, the Kaji was responsible for enforcing the customary norms of the community and organising annual cycle of festivals. Thus, whereas the Gapu's authority was confined mainly to the secular matters, the Kaji's authority covered both secular matters as well as some sacerdotal matters. Theoretically in secular matters the Gapu and the Kaji had equal authority over their respective spheres ; but perhaps because of his more intensive contact with the rulers of the north, the Kaji had an edge over the Gapu. It is significant to note that while referring any event in the pre-British period, the Totos always indicate the time by the name of the person who was holding the post of Kaji ; in case of the events during the British period they mention the name of the Gapu.

In religious matters, the Kaji had admittedly greater prerogative, because the ultimate sanction for enforcing the norms derived from the Bhutia rulers, with whom he was more in contact. But he was not the only religious functionary. There were shamans or pawos and clan heads who had important religious functions. Besides, there was a festival, Sarde puja, where the Gapu also had some sacerdotal role. Even then, it is beyond doubt that Kaji had a recognised prerogative in formal religious functions of the Totos at the community level.

With the transfer of power from the Bhutias to the British, the seat of power shifted from the north to the south. In the context of the Toto politico-social setting, the relevant universe was the district administrative unit. As Gapu was handling the problems of contact with the south in the past he became the natural representative of the community in dealing with the representatives of the new power of the south. But whereas previously under the moiety system for porterage work, the problem of regulating the contact with the south had relevance only for one segment of the community, in the

changed context it had relevance for the entire community. Thus the entire community was drawn into the orbit of the activity field of the Gapu and to the outsiders he emerged as the headman of the whole tribe. On the other hand, with the withdrawal of the Bhutias from the position of civil authority, the secular role of the Kaji was relegated to the background ; his role as the religious head came more in focus.

Thus, the dual division of authority in the politico-social organisation of the Totos, which was essentially based on duality of contact with the dominant neighbours of the north and the south respectively, and duality of religious and secular spheres by derivation only, came to be considered to be based on the latter only, in the new order.

E. Transformation of the Political Authority of the Past as the Supernatural Authority of the Eternity

The Totos have two sacrificial swords, and one big brass vessel which, according to them were received by their ancestors from the chief of Paro. These are still used by them in their various ceremonies. They believe that all their rituals at the community level were not only derived from the Bhutias, but if any one failed to conform to the customary norms of the community, he was physically punished by the chief of Paro.

While performing their ceremonies, the Totos offer five salutes to Ispha, the high god. But at the same time the older persons among them consider that their salutes reach the chief of Paro in Bhutan. In their concept there is a mystic identity between Ispha and the chief of Paro.

Till 1957, almost every year one Bhutia official used to come from Paro to Chamkuna, a few miles away from Totopara inside Bhutan. The Totos call him Dumepa. On his arrival he used to send a message to the Kaji, who used to visit him with some offerings collected from among the Totos.

It seems that Totos did not like to visit this official and make the offerings. But at the same time, they considered that as he was the representative of the chief of Paro, some supernatural harm would visit them if they did not show him due respect. As one Toto elder put it "Dumepa is the orderly of the chief of Paro. We pay three salutes to Dumepa, so that the five salutes that we pay to Ispha may reach the chief of Paro".

It appears that with the discontinuation of the Bhutia rule, some of the customs centering the old rulers did not automatically disappear. The emergence of the Kaji, as the sacerdotal chief divorced of secular authority, also created a vested interest in favour of their persistence. But the nature of sanction for their persistence had to change. Whereas under the Bhutia rule, the sanction was the coercive power of the state, in the new dispensation it came to be the mystic power of the supernatural. From the ashes of the past arose the phoenix of the perpetuity, in new themes.

F. Transformation of the Nature of the Land from the Ceremonial Category to the Economic Category

On the establishment of the British rule, the system of forced labour was abolished. But the Totos were required to pay some revenue instead, the particulars of which have already been furnished in the extracts from *Sunders and Milligan*. The Gapu was to collect it from the people and pay to the government. This radically changed the nature of authority of the Gapu. In the past in the matters of utilisation of land, neither the Gupu nor the Kaji had any authority beyond the jurisdiction of the respective clans. But the new system introduced by the British vested the Gapu with authority over lands beyond his traditional jurisdiction.

During the Bhutia rule, it was more or less inherent in the system that the tribe would be able to establish unified command over the lands at Totopara. Due to pre-occupation with hura or forced labour, the Totos had little opportunity to practise agriculture, on a large scale. They had to depend considerably on food gathering and limited trade. There was also no land revenue. As such, as an element determining the interaction between the different segments of the tribe as a whole, land had little significance. To the individual clans on the other hand, the area—rather than the land occupied by the original settlers of the clan, was of great emotional value. Thus in the pattern of Toto culture land belonged more to ceremonial category than to economic category. Introduction of land revenue by the British, however light the assessment might be, was the first step towards the transformation of the land into an economic category and the emergence of the Gapu as the symbol of the unified command of the tribe, though perhaps the command was not always very effective. But another process was also taking place in the wake of it.

Previously the unplanted trees in the jungle tracts of Totopara were looked upon as free gifts of nature, for the use of anybody according to requirement. Now the utilization of the various reserved species like dampole, khajur etc. came to be considered as the prerogative of the Gapu and none could cut the same without making some payment to the Gapu. By a slow process of metamorphosis, the personal command of the Gapu, rather than the unified command of the tribe as a whole, came to be established over the trees grown at Totopara. At the initial stage however the Gapu could not restrict the use of trees like siris, paruli etc. At a later stage, when there was demand for those trees for supplying fuel wood in the tea-estates, the Gapu could establish a limited authority. While others could make unrestricted use of these trees for personal consumption, it was only the Gapu who could sell them. But by this time another claimant for the right of control over the trees at Totopara, also entered in the field. It was the Khas Mahal Department of the Government of West Bengal. After a long spell of confused

confrontation, the Department ultimately asserted its right round about 1960.

It appears that from the technical point of law, the right that the Gapu came to exercise over the lands and trees at Totopara, in the early stage of the establishment of the British rule in that area, is a fictitious right. But in terms of sociological characterisation, even the growth of a fictitious right is a positive process with manifold ramifications. In the present instance, the establishment of the fictitious right of the Gapu, reiterated his position as the rallying symbol of the community. This meant corresponding reduction of sacerdotal control over civil matters ; it also meant corresponding reduction of the authority of the clan chiefs and other functional authorities in matters that are of interest to the tribe as a whole. These developments were the necessary preconditions for the growth of trade at Totopara, that became the mainstay of the Toto economy for a few decades after the establishment of the British rule.

G. Shift of Emphasis from Food Gathering and Trade by Barter to Trade as well as Production of Subsistence and Cash Crops

As already mentioned, during the Bhutia period, the cultivation of the Totos suffered, as they could not give much time to it. They used to collect roots and tubers from the jungles ; hunt deer, hare, pig etc., and barter orange obtained from Bhutan for paddy and other necessities, at Ballalguri and other Mech villages. Cultivation by shifting method was only a subsidiary means of livelihood. They used to grow minor cereals like kaoni, marua etc. The main responsibility for cultivation was borne by the females, who were not required to be absent from home off and on in connection with the slave labour.

Before discussing the changes that came about on the establishment of the British rule, it would be interesting to take note of the social implications of the transaction of commodities under the barter system, as found among the Totos and their neighbours.

Even now the Totos enter into transaction of commodities under barter system. For instance they carry jungle products and betel nuts to the labour lines in the tea-estates and obtain on exchange tea leaves, maize etc. They describe such transactions as begging. Sometimes Daya women come to Totopara and obtain grains in exchange of jungle products. In such cases the Totos would say jeeringly that the Daya women have come for begging. Once the author observed one such transaction. A Daya woman came to the house of the Kaji. The Kaji's wife gave her some quantity of maize. The Daya woman put the same in her bag and brought out a few betel leaves, placed the same before the Kaji's wife and then left the place. There was no bargaining. It was obvious that the Kaji's wife was considering that she was bestowing some favour by giving the maize to the Daya woman and

that what she received from the Daya woman was her offering of thanks and not commodity in exchange. Similarly when the Totos exchange their jungle products and other objects including betel nut for maize and other necessities, they consider that they have received a favour. They consider it to be an inferior type of transaction and try to conceal it. On the other hand when they sell betel nut in lieu of cash, they consider it to be transaction of the proper type of which there is no reason why they should feel ashamed.

Coming back to the economic situation of the Totos during the Bhutia period, it seems that hura or slave labour also provided the Totos with opportunity to carry on barter of commodities to a very large extent. The group of Totos that went north used to collect orange from the Bhutias and bring down the same to Totopara. They then carried these to the neighbouring Mech village and bartered for paddy. They retained one-third of the paddy themselves and gave two-third to the owners of the oranges.

It appears that even after the transfer of power from the Bhutias to the British, the Totos did not care much to be self-sufficient in their cereal requirements. In 1896, *Sunders* found that they were obtaining paddy from the Mech villages in exchange for mango, jack-fruit, bamboo etc.

But one significant difference had taken place during this period, freed from the rigours of slave labour, the Totos had more time to devote to cultivation. It appears that at this time both orange cultivation and cultivation of cereals by slash and burn method went up. But in view of their antecedents of trade in orange, it was natural that they gave more emphasis to the production of orange.

Four generations ago, *Lamuse Toto* of Nubebei clan introduced orange cultivation at Totopara. This brought about a radical change in the role of Totos in the orange trade. Previously they were only middlemen in the channel of transaction of orange from the Bhutias and to the Meches. With the production of orange at Totopara, the Totos were no longer required to carry orange to the plains for barter ; orange mart grew up at Totopara itself. This was possible not only because Totopara became a production centre of orange but also because comparative peace was established in the country and merchants from the south no longer felt it unsafe to visit Totopara.

Along with shifting cultivation and horticulture, collection of jungle produce also continued. Another economic activity which was of some importance, is the rearing of livestock. In the beginning of the present century, *Milligan* found that the Totos depended chiefly on their orchards and homestead product, and on the money realised from the sale of their orange, betel-nut, pan-leaf, bamboo, fowl and pig. It appears that at that time merchants from far off places used to visit Totopara, and that the transactions were mostly on cash payment.

Intensive investigations however reveal that only a few families had

extensive orange groves and that the rest had orange groves not larger than the kitchen-garden scale. They used to earn their livelihood mainly by the collection of jungle products, rearing of livestock and daily labour. For them it was more convenient to barter their small ware at Khayerbari, Ballalguri etc. for grains. For their labour they were paid in cash or kind depending on the place of work. At Totopara, they used to do portage work in connection with orange at the rate of 6 pies per trip from the orange grove near Haori river to the depot at a distance of about two furlongs. At Ballalguri and other Mech villages, they used to undertake labour in connection with clearance of jungles, fencing etc. For such work they were generally paid in kind. The live-stock also were more frequently bartered for rice or paddy.

It is obvious that though about fifty years ago, money economy made great inroad in the economic organisation of Totopara, it did not completely disrupt the infra-structure of barter economy.

Another aspect of the economic organisation of this period deserves mention. Case studies show that though there was inflow of money through orange trade, there was little opportunity for changing the standard of living or investing the same for productive purposes.

As a legacy of their past, as the slaves of the Bhutias, and also due to the insecurity of the border area, the Totos were extremely nervous about conspicuous consumption. Also they had the superstitions against deviations from the traditional norms. About sixty years ago, the then Gapu had constructed a wooden house. It was a deviation from the Toto custom of having houses on bamboo platform only. After some years, the house was burnt by fire. The Totos interpreted it as a sign of the anger of the god. Since then no Toto has dared to completely deviate from the traditional pattern in the matter of housing.

For investment also the scope was extremely limited. The land being the common property of the community, any one could cultivate as much land as he liked. There was no question of investment for purchasing land. Some of the Totos invested their accumulated capital in purchasing a good number of cattle. As they did not drink milk, at that time, and also as settled agriculture was hardly practised, the utilitarian value of cattle was extremely limited. It appears that bovine cattle was more reared as a mark of social prestige than as an economic investment.

SECOND PHASE OF CHANGE

The second phase of the changes started about fifty years ago with the dying out of the orange groves, and the settlement of the Nepalis. All these are inter-related. They will be examined separately as well as in relation to one another.

A. Dying out of Orange Groves and the Consequent Changes

Sunders, in his Settlement Report (1880-1894) mentioned that orange groves at Totopara were dead and that the Totos were depending on the barter of oranges brought from Bhutan. But 20 years later, Milligan found flourishing orange cultivation at Totopara. In 1918, Gruning also mentioned the flourishing condition of orange at Totopara. It appears that the contradiction between the observation of Sunders and the later authors can be explained in either of two ways. Firstly, there might have been a temporary recession of orange cultivation at Totopara which coincided with the visit of Sunders, and it might have revived subsequently. Secondly, Sunders might not have made the investigation thoroughly. When the problem was presented to the Toto elders they pointed out one possibility. After every 25-30 years or so, orange trees in that area generally begin to die out and require to be replaced. It may be that Sunders observed some old plantations where the trees had died out and which required re-cultivation. From the accounts furnished by Milligan, Gruning as well as by the Totos, Nepalis and their neighbours it can be stated without any hesitation that till about 50 years ago orange cultivation was a growing concern at Totopara. It was only round about that time that the orange plants began to die out.

As noted earlier Toto economy was a peculiar combination of market economy and food gathering economy. Food production had much less important place in their economic organization. Decrease and ultimate dying out of orange cultivation was therefore a matter of vital concern for them. They were in search of alternative avenues for earning their livelihood. Settled agriculture with plough was a possible alternative. It is, however, unlikely that the advantages of settled cultivation were very obvious to all the Totos at that time. Even now, some amount of internal conflict exists in many Toto families regarding the priority to be given to settled agriculture. Two generations ago, this conflict must have been much more intense.

In 1906-16, Milligan noted that shifting cultivation was the general practice of the Meches and that the Totos were following their model. But even at that time the need for adopting settled agriculture was being pressed upon the Meches through the operation of a different set of economic factors. At that time the tea industry was rapidly expanding in the district of Jalpai-guri and there did not exist enough land where the Meches could carry on shifting cultivation. They had two alternatives before them—either to adopt settled agriculture or to recede to more outlying areas. Most of the Mech families preferred the latter course and beginning from the first decade of the present century upto the middle of the second, hundreds of them migrated to the more outlying areas of the district or to Assam. In the face of the diffidence of the much more advanced neighbours belonging to the Mech tribe, it is natural that fifty years ago the Totos did not readily take to

settled agriculture, though the need for it was pressing upon them very hard. But, at the same time it was not possible for them to entirely depend on shifting cultivation. One of the important limiting factors in this matter was the dearth of adequate land. As noted earlier, the territory of Totopara covers an area of 3.12 square miles. Much of it is undulating and rocky and unfit for any cultivation. Besides, the fertility of the soil is also very low. In 1958 on an average, the Totos were found to grow about four maunds of cereals per acre of land under slash and burn method. Hence, even if they cultivated 200 acres of land under slash and burn method which was the maximum, and which was available under ten years cycle of shifting cultivation, there was not enough land to support more than 80-100 persons at Totopara. Therefore either the Totos had to adopt settled agriculture and diversify their economy or had to migrate from Totopara and settle in other areas.

In the matter of migration from Totopara and settlements elsewhere, there were certain restrictive factors. Firstly, being a very tiny community they had developed a sort of obsession about their numerical strength. There was a built-in resistance in the culture of the communities against moving outside. The second limiting factor was their past. Being erstwhile slaves of the Bhutias they could not have liked to move inside Bhutan and settle there. On the other hand, socially and culturally their differences with the communities of the south were so marked that they would have felt very much out of tune among those people. The fact that the Toto economy was for a long time based on food gathering and trade, whereas the economy of the neighbours was primarily based on agriculture, also served as another inhibiting factor.

The logic of the situation demanded that the Totos should adopt settled agriculture. The government officials who visited Totopara round about 1920 also tried to persuade the Totos in that direction. It is in the context of this fact, that the settlement of the Nepalis at Totopara assumes special significance.

B. The Settlement of the Nepalis

The settlement of the Nepalis is to be seen as the outcome of a process. Before they were finally allowed to settle down at Totopara, the Nepalis had made successive attempts with the encouragement of some Totos, to occupy lands inside Totopara, but they were thwarted. One of the reasons why the Totos resisted the settlement of the Nepalis was the concept that Totopara was the sacred land of Ispha and no non-Toto should live there permanently. When the orange mart was existing at Totopara two or three Behari merchants and a number of Nepali merchants used to come there; sometimes they used to stay at Totopara and cook their own food. But they were not allowed to construct any house for themselves. Besides, they were not allowed to make a night halt, if they came before Mankeu festival in November-December.

They could not also stay at Totopara after Sarde festival, which normally took place in February-March. During the Bhutia rule these festivals marked the commencement and end of hura or slave labour operation. In other words, these were the time signals to regulate visits of the Totos to outside Totopara. In the new context their functions changed and they became time signals to regulate visits of outsiders to Totopara. Gradually, however, the resistance of the Totos eroded away through the development of the institution of ceremonial friendship with traders and others belonging to non-Toto communities and also with the growth of vested interests, among the Totos themselves to settle some outsiders to serve their own ends.

About sixty years ago, the then Gapu gave permission to five Nepali families to settle inside the territory of Totopara just near the boundary of Bhutan. He had some interest in this. He had about 100 cattle and did not find any Toto who was competent to look after them. He wanted the Nepali settlers to take charge of the cattle. But Samsepa Toto—the then Collecting Panchayat became jealous of this. He informed the Tahsildar of Falakata. After some time an European Sub-Divisional Officer from Alipur Duar came. He ordered that the Gapu could not settle any non-Toto at Totopara. So, the Nepalis had to leave at once.

But, when the orange groves died out and the Toto economy was at complete disarray, both the Totos and the government officials recognised that it was indispensable for them to have the assistance of Nepali cultivators so that they could take to settled cultivation. The new Collecting Panchayat, Genda Toto submitted an application to the Sub-Divisional Office of Alipur Duar for permission to settle Nepali families and the Sub-Divisional Officer granted the same.

Though the Nepali settlement at Totopara on a permanent footing began about forty years ago, the rate of such settlement was accelerated during the last twenty years or so. This process of slow migration at the earlier stage followed by accelerated rate of settlement later, is also related to a number of factors.

At the earlier phase of the settlement, the Nepalis introduced cultivation of maize and marua. The marua introduced by them was different from that grown by the Totos under the slash and burn method. The two varieties are described as Nepali marua and Toto marua respectively. As the Totos were accustomed to taking rice which they procured from the south, either by barter or by cash payment, maize produced by the Nepalis was not much popular with them. Nepali variety of marua was also not very popular. The Toto variety of marua, grown by slash and burn method, was mainly used for producing liquor, but according to the Totos the Nepali variety grown by plough culture did not taste good as liquor. Therefore, they were not much enthusiastic about it; even though it grows to a much larger

quantity in a shorter time. The earlier Nepali settlers on the other hand were handicapped against growing rice because of the nature of the land available to them at that stage. As the orange groves, though decayed, still continued to exist in the comparatively plain stretches of land at Totopara, the Nepalis had to confine themselves to the upland with little facility of water supply. The prospect of good cultivation was thus very bleak. It is, therefore, no wonder that only a few Totos took the trouble to learn cultivation by plough during the first 15 years.

Since the beginning of the forties, the table turned. At this time the orange cultivation completely ceased to be an economic proposition at Totopara. Whatever orange trade remained had to depend entirely on supply from Bhutan. It is reported that Bhutan government posted one official at Totopara who used to collect toll on the oranges procured from Bhutan. His right to collect toll in the British territory was once challenged by Gendra Toto and he was severely beaten. After this incident, it became very difficult for the people to get supply from Bhutan. Besides, at this time Bhutan was trying to develop alternative orange mart at Chamkuna, inside Bhutan. Quite a good quantity of orange was thus diverted but even then the orange mart at Totopara somehow staggered on with its existence. The final blow came however from quite an unexpected quarter. Upto 1948 the N. E. Railway had a terminous station at Dalsingpara—4 miles from Totopara on the other side of the river Torsa. Oranges collected at the trade mart at Totopara used to be exported outside, through Dalsingpara. But after the partition of Bengal, the old railway connection between Assam and the rest of India being cut off, it was an imperative necessity to construct a new link line. The terminus station at Dalsingpara was abolished and the link line passed through the next station Hasimara—about 10 miles from Totopara. After that large scale export from Totopara became very inconvenient and the orange mart had to be closed for all practical purposes. At present only a meagre amount of trade takes place at Totopara.

With dying out of orange and finally with the closure of the orange mart, cultivation gained a new importance. Other developments also took place in its wake. The land released from orange cultivation was now available for agriculture. But as most of the Totos did not know the technique, they welcomed Nepali immigrants to cultivate the available land in different parts of Totopara and assist the Totos on reciprocal aid basis—the Totos contributing towards the more unskilled part of the labour and the Nepalis contributing towards the more skilled part.

IMPACT OF CULTURE CONTACT

Large influx of Nepalis quickly changed the complex of the village organisation at Totopara. Though until recently in the eyes of the government

they were trespassers and had no locus standi and as such though they had to acknowledge the authority of Gapu and the Collecting Panchayat in the transactions with the government officials, in social and cultural matters, their domination was soon established.

Nepali has now become the lingua franca at Totopara. Nepali customs have also become the yard-sticks to measure the respectability or otherwise of Toto customs. Some of the important changes would be indicated here. Till about 20 years ago a Toto male could be identified by the dress that he wore. Now only a Toto woman can be identified by her dress. Amepa Toto aged about 40 told that till about the age of 6 or 7 he did not see anything but Toto traditional dress. At that age he went to Lankapara market and saw people wearing shirts and pants. He wanted the same for himself, but due to the opposition of the other Toto elders, his father did not agree. Some time later, the Nepali settlers were found to go about Totopara wearing shirts and pants. Amepa was nervous of the shirt and pant wearing Nepali children and used to shun their company. He did not wear any pant till he was in his late twenties. About 15 years ago, after the death of his father, when he became the Collecting Panchayat, he purchased a half pant. At first he used to wear it only when he was to meet the visiting government officials. The people did not mind his wearing pant on such occasions. But when he began to wear pant at the time of the agricultural operations, the village elders protested; but he did not pay any heed to it. At present quite a good number of Totos wear shirts and pants without much overt reaction from their elders. But it will not be correct to say that the Toto elders have been completely reconciled to this change. The Kaji was telling that a person aspiring to hold the post of a Kaji must observe all the prescribed rules of the tribe. It is to be noted that before a person becomes Kaji, he is supposed to receive instructions from Ispha in dream. Among the rules that a person must follow, so as to be qualified for getting the "dream" is that he should always wear the traditional dress of the community. But the son of the Kaji wears shirts and pants only. He is therefore worried whether after his death there will be any Kaji of the tribe.

During the festive occasions, however, the Totos use their ceremonial dress even now. But in this matter also some change is coming up. In 1955, during the mayu festival, a number of Totos wore not only the dress in traditional fashion but also with traditional designs. But the next year, there was hardly any Toto, who was wearing dress woven with traditional designs. They were wearing mill made clothes, the only continuity with the past was that they were wearing the same in the traditional fashion.

Household Goods

For cooking purposes, the Totos use small metallic vessels. Yoti or

earthen pots, for cooking rice, also exists in most families. It appears that about 40 years ago metallic vessels were rather rare and that earthen pots used to be purchased in much larger number. It is reported that there is a community in Bhutan which has specialised in making earthen pots. About 30 years ago they used to come to Totopara during the winter for bartering pots in exchange of salt and grains. Now, not a single earthen pot is obtained from Bhutan; all are purchased from the plains. The metallic vessels are mostly purchased from Ramjhora and Madarihat. About 40 years ago, metallic vessels were sold at Totopara itself. At that time the orange mart was in a flourishing condition and in the winter hawkers from Cooch Behar used to bring metallic vessels to Totopara for exchanging the same with orange.

It is to be noted that the Totos have adopted more metallic cooking vessels than simple metallic containers. For containers, they depend much more frequently on locally available bamboo tubes.

Several types of bamboo baskets and containers are used by the Totos. These are however crude in workmanship. Their low achievement in this sphere, specially when bamboo is so much abundant at Totopara, seems rather strange. All the finer types of baskets are procured from the Nepalis, either on payment in cash or in exchange of fowl. Sometimes the Totos render service in the fields of the Nepalis in lieu of the price of the baskets.

Coming over the cutting implements, it may be noted that while the Nepalis use Khukri or billhook with concavo-convex cutting edge, the Totos use patang or billhook with straight cutting edge. It is of the same type as is used by the Bhutias, Lepchas, Dayas and Meches. On the other hand Kachia or scythe used by the Totos are of the same type as is used by the Nepalis, Meches and Modesias. The Dayas and the Bhutias do not use it.

It appears that about 40 years ago the iron implements were acquired from Bhutan on barter system. Later on blacksmiths residing in the different tea-estates captured the field. They could produce the commodities at much cheaper rate out of discarded iron scraps auctioned by the factories of the tea-gardens from time to time. A few years ago, a Nepali blacksmith had settled at Totopara. Even now, many Totos continue to get their supplies from the blacksmiths in the tea-estates but some have started to patronise the village blacksmith. When asked whether any of them would like to learn smithy, the Totos would instantaneously answer in the negative. Nepali blacksmiths are considered to be low in caste status and the Totos would not like to get mixed up with them.

Ornament and Body Decoration

Not a single ornament worn by the Totos is peculiar to them. The bangles that they wear are similar to those of Modesia tea plantation labourers;

the tisas or necklaces of coins worn by the Totos are also found among Nepali and Modesia people. Bead necklaces are very common among all, including the Meches. In all these, Bhutia influence is not so apparent. The only ornaments which have definitely been adopted from the Bhutia source are finger rings and locket like miniature charm boxes. In the finger rings, often Bhutia designs are engraved, the meanings of which are not known to the Totos. Sometimes, stones of different colours are inserted in the rings. These are supposed to have magical properties. The locket like charm-boxes are suspended from the neck with a thread.

Recently a few persons have started tatoing their hands. The motifs are figures of Rama-Sita and Hanuman etc. This is an innovation, adopted from the neighbours.

Traditionally the Totos used to crop their hair in a round fashion almost up to the level of the occiput and without trimming down the broad edges. Till about ten years ago except for four or five persons, hair of all the Totos were cropped in the same fashion. It is said that the change was brought about by Jogendra Sarkar, the first organiser of the Welfare Centre. Under his advice two young Totos who collected oranges from Bhutan and sold the same at Dalsingpara market, got their hair cropped by the barber in the market, in the fashion of the people of the plains. When they returned home, there was a hue and cry. But Amepa Toto the Collecting Panchayat sided with them. He stated that as they had got their hair cropped with the money obtained by them from the people of the plains the elders should not object. Later on, however, one of the youngsters reverted to the old fashion. His wife was in an advanced stage of pregnancy, and he feared that if he did not observe the rule of the ancestors, harm might come to the baby in the womb. So, the stick of the ancestors operated through the coming child.

Language Habits

Though Toto is the mother-tongue of all, many are bilingual. In 1960, approximately 71% of the males and 62% of the females could speak Nepali as a second language. There were a good number of Totos who could speak Bhutia, Mech, Bengali and Nepali as well.

The incantations chanted by the Totos during the ceremonial occasions are in Toto language. But the Kaji has a sacred book which is in Tibetan language. It is claimed that it was received from the Chief of Paro by the ancestors of the Totos. The Kaji cannot read the book. But once annually he worships it publicly.

There is another aspect of the language situation. The Totos hardly sing any song except during the ceremonial occasions. Even on those occasions, the sacred songs are sung only by those who have been ordained by Ispha in dream to sing songs. Previously the Totos had their own secular

songs as well, but they are now very much ashamed of those songs as they consider them to be obscene. If any young person sings these songs, in the presence of the elders, he is considered to be indiscreet. But about two generations ago these songs were sung by the Toto youngsters without much inhibition. It seems that they now consider them as obscene as a result of culture contact with the Nepalis.

The vacuum created by the rapid disappearance of Toto songs is being filled up by Nepali songs. And not only songs, even the folk tales that the Totos tell now-a-days to their children are frequently Nepali folk tales. Nepali language is making quick inroad in Toto language. Even in the terms of address, Nepali kinship terms are now used quite frequently.

Food

To a casual visitor the Totos would say that like other Hindus they do not eat beef; but in fact in their social and religious ceremonies beef is almost indispensable. Some of the Toto youngsters who wanted to give up beef about ten years ago were admonished by their elders for trying to deviate from age-old customs.

Rice is the staple food of the Totos. They also take kaoni and marua. But they do not relish maize. There is considerable difference in the food habits of the Totos and the Nepalis. Firstly among the latter, maize is more frequently taken. The second difference is that jungle products have greater place in the menu of the Totos. One of the important items of jungle product which is altogether absent in the menu of the Nepalis of Totopara is jungle bamboo shoot. Somehow it is considered to be diacritical trait connected with the Totos and the Nepalis of Totopara are reluctant to eat it, though the Nepalis of the neighbouring villages have no such inhibition. It seems that a system similar to that connected with caste organisation in the rest of India, is taking shape in this remote village.

CONFLICT OF CHOICE IN THE ECONOMIC PURSUITS

A. Settled Agriculture vs. Shifting Cultivation

In 1933, only three or four Totos began to cultivate maize with the plough. Even the 1939, settled cultivation did not make much headway. As stated earlier it was only after the almost complete disappearance of the orange groves in the early forties, that settled cultivation made rapid progress. At present there are only a few families that have not adopted plough culture.

Change over from shifting cultivation to settled agriculture has meant not only learning and re-learning of new techniques, but also has meant a triangular conflict in most of the families. A case study is furnished for illustration.

In 1955 one Toto youngman wanted to extend the area of maize cultiva-

tion under settled agriculture by reducing the area of kaoni cultivation under slash and burn method. But his father did not agree. As there was no restriction in utilization of land, the problem was not that of space but of capital. Both maize and Kaoni cultivation seasons fall almost at the same time. During the cultivation of either they require to engage outside labour for a few days. As they did not have enough cash to engage labour on wage basis, they decided to engage labour on the condition of mutual aid, but even in that case, they required to entertain the workers with liquor. On the other hand they did not have enough marua in stock to prepare liquor for the labourers for both types of crops. The father did not yield to the pressure of the son; the mother also was against the son. She was not acquainted with the practices connected with settled agriculture and she felt the extension of the same would render her useless in the family. Ultimately, the son borrowed some marua from a Nepali and extended the area of settled cultivation independently.

The mother was bitter on this point. She thought that kaoni was indispensable for the various ceremonies. By discarding kaoni, the son had discarded religion.

B. Shifting Cultivation vs. Trade

There is some conflict of choice between shifting cultivation and trade. Even now a good number of Totos go to Bhutan for collecting orange and selling the same in the markets of Lankapara and Ramjhora. With the small profit thus earned they generally purchase fancy goods, like sweets, cloth, hair-oil, comb etc. The youngsters therefore prefer to go in for such trade. But harvesting of marua also takes place in the same time. Hence the elders want the youngsters to help them in the field. A few cases of dissolution of joint family has taken place as a result of this conflict.

C. Trade in Betel-Nut

In recent years trade in betel-nut has become an important item of commerce at Totopara, but it has come in conflict with an age old kinship principle.

According to Toto custom, a Toto woman can tie a string around a betel-nut tree belonging to any of her classificatory brothers of the same clan and claim the fruits of the tree for herself and her descendants. Till recently, the clan brothers submitted to such demands graciously. Besides, as the system of cross-cousin marriage prevails among the Totos, it was frequently possible for the clan brothers to recover the loss through strategic marriage alliances. But in recent years, they have discovered that betel-nut has great commodity value. Price of betel-nut has gone very much, and by selling the same, they can obtain the capital for extending cultivation. Hence, in many

cases, the clan brothers are showing reluctance to oblige the sisters. Some of them have sold away their trees to the Nepalis to avoid embarrassment. Even ten years ago, such selling of trees to the Nepalis would have been severely castigated by the community; but it seems that the community has completely given up its resistance on this matter during this period. This change can be related to another development at Totopara. In 1900 cadastral survey took place at Totopara, and actual occupations have been recorded. After this the Totos and the Nepalis occupying the different plots of land, are considering themselves to be absolute owners of land. Previously the Nepalis were holding land by the sufferance of one or the other Toto; now they consider that they are holding lands on their own rights. Sale of land and even leasing out of the land on share-cropping basis have already started to take place. In this context of commercialisation of the resources, the commodity nature of the betel-nuts, has submerged the social complexes that grew up around it. But even then, there are Totos, who feel nostalgic about the past. They miss the sweet aroma of brotherly obligations and the fulfilment that came through self-denial.

S. S. JOHL AND GURBACHAN SINGH

Economic Implications of Selected Agrarian Reforms in the Punjab

AGRARIAN reform legislations¹ enacted in India, under the "Land to the tiller of the soil" programme, were based on the belief that the existing tenurial arrangements—proprietary and cultivation tenure—were the main social and economic obstacles hindering the progress of agricultural development in the country. But, on retrospect the programme has appeared to be based on over-optimistic expectations and has revealed certain fallacies in these assumptions. These measures might have served some political end, but considered from economic, and to some extent from social angle as well, they have done more harm than good.

These measures broadly aimed at equitable distribution of ownership rights in land, security of cultivation tenure and fair rents, as adopted under the various acts, could be considered rational only if all or either of the following situations existed in the State:

- (i) The existing man-land ratio being low, the land resources were under-utilized and there was a need to attract more entrepreneurs to agriculturè.
- (ii) Man-land ratio was the optimum, entrepreneurs finding non-agricultural pursuits comparatively more remunerative, were moving out of agriculture and there was a need to retain these entrepreneurs in the agricultural profession to maintain a sustained growth in agricultural production.
- (iii) There was a serious maldistribution of land in the State and it required equitable distribution among the cultivators whose existing

number was optimum vis-a-vis the total cultivated land available in the State.

- (iv) There was large acreage of reclaimable land which required redistribution amongst the cultivators already engaged in agriculture.
- (v) In an extremely dismal situation there was no scope of creating or expanding of the farm employment opportunities and social justice demanded that property be distributed equitably.

In the Punjab none of these conditions seemed to hold true at the time of the enforcement of these agrarian legislations.

The population dependent upon agriculture in the State is so large, that the first priority should have been to reduce this pressure on land through pulling out the inefficient tradition-bound farm-operators. On the contrary, the high man-land ratio as indicated in appendix I is increasing through time. As a result of these reform measures, not only the inefficient farm operators have been retained but also the persons with no or low managerial experiences (farm tenants and labourers) have also been called upon to assume the role of farm entrepreneurs.

The second situation, i.e. the optimum number of cultivators in relation to the land resources is far from being true. The problem here again is of too many hands seeking after too few jobs in agriculture. Although the existing techniques of production are comparatively labour intensive in nature yet the intensity of other inputs used is low and agricultural economy is operating at a low level of technology. Not to speak of traditional, even at the existing technology more than 40 percent² of the labour force can be safely withdrawn from agriculture without affecting the level of production. This withdrawal of labour would in fact improve the efficiency standards in agriculture due to a reduction in the average cost denominators through adoption of improved technology resulting in favourable input output ratios. These agrarian reforms in their present extent and content are not, therefore, justified on this ground.

There is a case of maldistribution of land in the State but its nature and extent does not justify the redistribution of land among landless labourers and tenants on the pattern of these reforms. The size and distribution of owned holdings in the Punjab during the year 1953-54 (the year of enactment of "The Punjab Security of Land Tenures Act, 1953") as shown in Table I, indicates that 96.69 percent of the total owned holdings in the State were less than ordinary 30 acres. These units covered about 69 percent of the total area.

TABLE I

Size and Distribution of Holdings in the Punjab (integrated) in 1953-54

Holding size (acres)	Area Owned			
	Number of holdings		Area (acres)	
	(,000)	Percentage	(,000)	Percentage
Not exceeding				
10 acres	2505	83.95	6963	36.15
10-20	284	9.52	4040	20.97
20-30	96	3.22	2329	12.09
30-40	42	1.41	1446	7.52
40-60	32	1.07	1564	8.12
60-100	17	0.57	1278	6.64
Above 100	8	0.26	1638	8.51
Total	2984	100.00	19258	100.00

Average size of holdings = 6.45 acres

Source—*Statistical Abstract Punjab*—1961

Keeping in view the fact that generally the standard acre is equal to two ordinary acres,³ there were 0.83 per cent of the cultivators owning 15.15 per cent of the owned acreage which had holdings above the ceiling limit. But this category of farmers include a large number of displaced persons from Pakistan, in whose case the ceiling was 50 standard acres or ordinary 100 acres. This category further included progressive farmers and orchardists in whose case the imposition of the ceilings was relaxed. No wonder, therefore, that of the total 19,258 thousand acres of owned area in the State, only about 411 thousand acres (2.19 per cent of the total owned acreage) was declared surplus. If out of this surplus acreage viable farm units were to be created (30 ordinary acres), there would be about 13,700 holdings that could be allotted to the land-less tenants or agricultural labourers. This would not touch even the fringe of the problem. In actual practice the land was distributed in very small bits, some times even the fraction of an acre to satisfy the largest number

of the landless tenants and labourers.¹ This way the volume of business of some large sized holdings was reduced and the surplus land was atomised to small inefficient units. This indicated that where on the one hand there existed not much of a case of maldistribution of land in the State, whatsoever surplus land could be made available was on the other hand distributed among capital starved, inefficient new entrepreneurs. Uneconomic units were thus multiplied.

In respect of reclaimable land, i.e. culturable waste, although there were 2145 thousand acres in 1953-54, this acreage also did not justify the claim of serving the interests of landless tenants and labourers to any considerable extent. Upto the year 1963-64 only 1220 thousand acres of land were reclaimed which could be cut into only 4067 holdings of 30 ordinary acres. This again would not solve the problem of landless labourers and tenants to any appreciable extent. On this account as well, redistribution of land amongst landless labourers and tenants was not much justified.

If we admit the fifth situation, this would smack more of a defeatism than a faith in our capabilities to meet the challenges of growth. The situation is not that grim that we find ourselves completely unable to provide off-the-farm gainful employment to the surplus working force in the rural areas. Development plans and huge investments therein are generating an appreciable employment potential. Demand for skilled and semi-skilled labour is increasing rapidly. What is needed is the improvement in specific skills of the surplus rural labour force and to withdraw it from an over-pressurised agriculture rather than redistribution of existing land resources among unskilled labourers and tenants to breed and perpetuate inefficiency in agriculture.

Looking at the problem from another angle, there were only 13.95 per cent of the cultivators in Punjab (Appendix II) who were landless tenants. The agrarian reforms were mainly aimed at protecting the interests of these cultivators through provisions of security of land tenures and fixation of fair rents. As a result, with the rest of the cultivators these measures have, on the other hand, created a large element of uncertainty. These measures aimed at protecting the interests of 13.95 per cent of the low skilled cultivators (and that too ineffectively) created tenurial uncertainty for 86.05 per cent of the cultivators who were comparatively more skilled and efficient farmers in this State. This in all probability affected agricultural production and growth adversely. Again, these reforms could not be very conducive to capital formation in agriculture. When land passed from the owners to the tenants, the tenants had to pay compensation through time. The resources of the tenants being very meagre, it put a further drain on their capital resources (owned and borrowed) and rendered them incapable of making investment on their newly acquired farms. On the other hand, due to uncertainties of tenure created by the reforms, the recipients of the compensation (owners) also

hesitated to make investments in their farm business. This led to low or even negative capital formation in agriculture.⁵

Similarly, rather more acute contractual uncertainties have been created by the provisions in the act to fix fair rent for the tenanted holdings. When the land is in so short supply vis-a-vis demand for it from the cultivating families, laws cannot be very effective in enforcing fair rents. This is an economic problem which cannot be solved by restrictive laws. Some thing needs to be done to strike at the very roots of the problem. These provisions have created more uncertainty in the contractual arrangements between the tenants and owners rather than solving the problem of rack renting. It is an economic truism, that unless the present heavy pressure of population on land is reduced, no amount of restrictive measures to enforce fair rents can succeed. The more vigorously and forcefully we approach the problem through these measures the more uncertainty it will create and worsen the situation.

This discussion will be incomplete if cognizance is not taken of the inheritance laws which go hand-in-hand with the land reform measures adopted in the State. Socially and politically, the Hindu Succession Act, 1956, which gives equal rights to the daughters in sharing the property of the parents, is plausible and commendable. But economically it aggravates the situation to such an extent that after passing of a generation each farm family would have its holding divided at least in two villages, i e. part of the agricultural holding will be in the wife's parental village and a part of it in the village of the husband. This sub-division will have no end unless some minimum acreage level is set and enforced. After only two generations each farm family will own holdings in four different villages, normally located wide apart. Whereas on the one hand tremendous efforts are being made and huge expenses are incurred in consolidating the holdings, the Hindu Succession Act not only works in the opposite direction but makes the problem so acute that it will become totally impossible to consolidate the holdings when scattered over more than one village.⁶ A more rational approach to providing economic and social justice to woman could be to give her equal rights to the property of her husband's parents on marriage. This would have also mitigated the problems of separation and divorce and would not have created economic problem of sub-division and fragmentation of holdings resulting from the existing inheritance law.

Unfortunately, social justice in India, in this context, has been conceived as distribution of ownership rights on land. This approach has not provided any real social justice except that it has tied down some of the tenants and agricultural labourers to deplorably uneconomic land holdings and has reduced the mobility of the agricultural labour outside agriculture. On the contrary, in the name of so called social justice, economic efficiency has been impaired and huge funds, which otherwise could find worthwhile investment inside or

outside agriculture, have been tied up in compensation and low productivity loans.

It seems, while enacting these agrarian reforms, the situation in the State in respect to land distribution, man-land ratio and economic structure was not given the consideration it deserved. These measures might have served some useful purpose in some other States of India where there was serious maldistribution of land and comparatively low man-land ratio existed. In the Punjab State, however, these measures have created more economic and management problems rather than providing any real social or economic justice.

APPENDIX I

Ratio of Cultivated Area to the Agricultural Workers in Punjab for Census Years 1951 and 1961

Year	Agricultural workers	Cultivated area (,000 acres)	Ratio
1951	4,048,665*	18999**	4.7
1961	4,649,426***	19683**	4.2

Source : **Census of India, 1951, Vol, VIII, Part I-A.*
Punjab, Pepsu, Himachal Pradesh, Bilaspur and Delhi.
***Statistical Abstract of Punjab, 1961.*
****Census of India, Vol. XIII—Punjab.*
Part II-B (1). General Economic Tables.

APPENDIX II

Distribution of Different Interests in Land (Cultivated) in the Punjab, 1961

Size of holding (in acres)	Total		A			B			C		
	No. of cultivators	Percentage	No. of cultivators	Percentage within the class	Percentage of the grand total	No. of cultivators	Percentage within the class	Percentage of the grand total	No. of cultivators	Percentage within the class	Percentage of the grand total
Less than 1	7767	2.33	5972	3.45	1.79	1099	2.36	0.33	696	0.61	0.21
1 to 2.5	31800	9.52	21405	12.37	6.41	6251	13.41	1.87	4144	3.62	1.24
2.5 to 5.0	41796	12.51	23922	13.82	7.16	7710	16.54	2.31	10164	8.89	3.04
5.0 to 7.5	51580	15.44	25130	14.52	7.52	9799	21.02	2.93	16651	14.56	4.99
7.5 to 10.0	33821	10.13	14871	8.59	4.45	4995	10.71	1.50	13955	12.21	4.18
10.0 to 12.5	43353	12.98	19675	11.37	5.89	7081	15.19	2.12	16597	14.52	4.97
12.5 to 15.0	20073	6.01	8188	4.73	2.45	1860	3.98	0.56	10025	8.77	3.00
15.0 to 30.0	72704	21.77	34989	20.22	10.48	6154	13.20	1.84	31561	27.61	9.45
30.0 to 50.0	21515	6.44	12076	6.98	3.62	1284	2.75	0.38	8155	7.13	2.44
50.0 and above	7878	2.36	5169	2.99	1.55	339	0.73	0.10	2370	2.08	0.71
Unspecified	1711	0.51	1654	0.96	0.50	52	0.11	0.10	5	0.00	0.00
Grand Total	333998	100.00	173051	100.00	50.82	46624	100.00	13.95	114323	100.00	34.23

A. Land owned or held from government.

B. Land held from private persons or institutions for payments in cash, kind or share (landless tenants).

C. Land partly held from government and partly from private persons for payment in money, kind or share.

Source : *Census of India—1961*, Vol. XIII, Punjab Part-III.

NOTES AND REFERENCES

1. Agrarian reforms included in this analysis are :
 - (i) East Punjab Holdings (Consolidation and Prevention of Fragmentation) Act (East Punjab Act L of 1948).
 - (ii) Punjab Occupancy Tenants (Vesting of Proprietary Rights) Act (Punjab Act II of 1953).
 - (iii) Punjab Security of Land Tenures Act (Punjab Act X of 1953).
 - (iv) The Pepsu Tenancy and Agricultural Lands Act, 1953.
 - (v) Hindu Succession Act, 1956.
2. Johl and Kahlon, "Labour Utilization Patterns and Employment Potentials of Punjab Farms", *The Journal of Agricultural Economics*, Vol. XXI, No. I, January-March 1966, p. 79.
3. *Government of Punjab: Land Code*, Volume II, Page 308.
4. Surplus land allotted ranged from 0.08 acre to 8.00 acres.
Hardyal Singh Gupta, "Land Use Efficiency on Surplus Lands declared Under the Pepsu Tenancy and Agricultural Lands Act, 1955", M.Sc. Dissertation, 1966, Department of Economics and Sociology, Punjab Agricultural University.
5. The Department of Economics and Sociology of the Punjab Agricultural University is working on the details of this problem.
6. Under the existing social customs, marriages within the same village community are not permissible.

KARUNAMOY MUKERJI

Land Prices in Punjab

Scope of the Study

This paper seeks to present time-series data on average prices per acre of (a) all types of lands, and (b) cultivated lands in Punjab as a whole, between 1869 and 1962-63.

It tries to (i) identify the periods of cyclical fluctuations in the prices of cultivated lands over years between 1912-13 and 1947-48, and (ii) fit the trend line by the Moving Average method.

It fits the linear trend equation so as to find out the average annual rates of increase in such land prices over specific periods, such as, between 1869-70 to 1873-74 (average) and 1912-13, between 1912-13 and 1925-26, 1925-26 and 1938-39, 1938-39 and 1947-48, and finally, between 1947-48 and 1961-62.

An attempt is made very broadly to assess in general terms the impact of certain socio-political and economic events on such land prices, namely, the First World War (1914), the post-war inflation in India (1920's), the World Economic Depression (1930's), the Second World War (1939), Partition of India (and of Punjab) (1947), and the first two Five Year Plans ending 1960-61.

Finally, we try to find out if any relation/correlation existed between such (a) average land prices per acre in Punjab on the one hand, and (b) the average absolute retail wheat prices, (c) average yield and (d) value output of wheat per acre in Punjab, as well as (e) all-India General Index of wholesale prices on the other, between the years 1871 and 1961.

Some General Observations

For a proper understanding of the subject-matter of this paper, certain events or facts of political-administrative and social-economic history of Punjab are briefly recapitulated but not documented here, as they fall outside the scope of present discussion. They are, in fact, essential for having broadly an insight into the process of evolution and behaviour of the land market in Punjab and forces determining land prices there. They are presented in a nutshell in the few paragraphs that follow.

After the annexation of Punjab by the British in India and after the British rule was firmly established there, the resulting political security, it is claimed, contributed to agricultural stability which was further promoted by changes effected in extant land laws of the region, conferring heritable and transferable rights for certain classes of proprietors and tenants. Survey and Settlement operations pursued over decades lent precision and fixity of land boundaries, conditions of tenure rents or revenue, etc., as Cadastral Survey *mawza*' maps and printed records of rights were prepared. Newly constituted law courts and British judicial system, despite all their limitations, sought to protect and enforce private property rights in lands. These and such other measures created a chain reaction and cumulatively and gradually helped shape the land market in the province. Land became forthwith a saleable asset which enhanced the credit of the peasant proprietors and occupancy *'ra'iyats* (tenants), and also commanded a slowly rising exchange value.

Secondly, over years and decades vast quantities of precious metals were absorbed in the economy of India and of the Province of Punjab and a large flow of financial remittances was received from Punjabi emigrees abroad and from military personnel and pensioners; these served on the one hand to monetize rapidly the rural economy of Punjab and to encourage speculative investments towards buying up of lands, and, on the other, led to the emergence of a money-lending class who let liberally against real estates as safe collateral security—sometimes to grab the mortgaged lands, at other to serve indirectly to help introduce improved crops including cash crops which called for larger expenses. No wonder that land prices soared up as a result of the operation of these new forces at work.

Thirdly, the government's occasional agricultural support programmes in certain cases—however meagre—and, particularly, the very impressive canal irrigation projects bringing comparative crop security and the establishment of the prosperous canal colonies, supplemented by many private schemes of land improvement, such as digging of canals and masonry, wells, etc., led gradually to an improvement of the quality of the soil and its productivity which, in its turn, brought new wealth to the farmers and higher prices for farm lands.

Fourthly, the increase in population over census decades—specially, those

dependent on land—led not only to an extension of cultivation but also an increase in land prices through higher demand for more arable lands.

Finally—and this is the most important point—the extension of cultivation raised the level of ground rents, and both intensive and extensive cultivation helped increase the average output per acre of many important crops as well as their total production, thereby leading to a sizable export surplus for the province, the mobilization which was aided by an enterprising class of merchants/middlemen whose activities were steadily assisted by the gradual improvement of communication, such as, through expansion of railways, construction of roads and opening up of navigable canals, etc.

Instead of lengthening this list, such a discussion may be rounded off with the observation that the data which the author has so far been able to collect, when fully marshalled and treated at length, should help establish the hypothesis which may be suggested in passing, namely, that in Punjab the monetization of its rural economy and the commercialization of its agriculture, aided and assisted by institutional and structural reforms, set the pace for the development of a full-fledged land market and progressive increase in land prices over time.

One more comment is of importance in this connection: Not only we do not elaborate or substantiate here the points made in the several parts of the hypothesis suggested, we do not also go in for an examination of the various social and economic results produced by the rising tempo of land transfer and land prices, such as, the process of land concentration in fewer hands and landlessness and diminished size and fragmentation of holdings on the one hand, and of the impact of mortgage debts and high prices of lands on agricultural investment, production, the income and living standard of farmers, and such other problems, on the other.

INTRODUCTION

The time-series data on land prices in Punjab presented here are the provincial (State) average prices per acre, first of all types of land (1869-1963), and, second, of cultivated lands (1897-1963). But, land market, as is well known, is a strictly local market par excellence. So several series of regional or local prices of lands in different areas of the Province would have been better indicators of the real situation in land transactions than the average prices series for the province (State) as a whole. But an attempt to furnish such data would unnecessarily increase the bulk of the paper. Moreover, it is difficult to study the long-term trends in land prices of small areas or localities from a distance, as that would require time-series figures for the same areas over time which are, however, only partly available in a limited number of published reports of ad hoc village surveys, but could perhaps be

obtained from local records that may have been maintained and more abundantly through personal field investigation.

Secondly, even the provincial averages for Punjab used here, are not in themselves such meaningful for secular comparison, since the geographical boundaries of this province (State) have been different in different periods due to additions/alterations and partitions for a number of times between 1871 and 1961. The average figures over the entire period are, therefore, not strictly comparable to one another.

A third limitation of the data presented is that the annual average land prices and crop prices (both retail and harvest) for Punjab as well as wholesale price data for India included in the all-India General Index are but official price quotations which are entered in the Judicial, Revenue and Registration records (in case of land transactions) and officially controlled (in the case of commodity prices) for distribution, procurement, and rationing purposes, etc. This may be and is quite often different from prices ruling in the open market. In fact, the problem of shadow prices as distinct from the actual prices fixed by free contracts, therefore, looms large in this study.

It is a matter of speculation if the divergences between officially fixed prices and open market prices have been greater in more recent times than in the earlier parts of the present century and in the second half of the last. It may perhaps be assumed that the market was less distorted in the earlier decades of the period covered here than in the later—more particularly in the last three or four decades. As for land prices entered in registration documents, the tendency to deflate and inflate the price contracted for is, in general, motivated respectively by considerations of tax payment and the desire to frustrate the pre-emption rights of purchase of coparceners, and so on.

This is not, however, the place to enter into a detailed discussion of the cause-effect complex of 'shadow' prices ruling side by side with open market prices, and despite the limitations of our data on this score, it may be permissible to accept them as rough guide to certain conclusions and proceed accordingly.

Finally, we may note the question of the reliability of the data used. They are all collected from government records and official publications and one or two secondary sources. But, some older official records and reports quoting statistics on the same topics, such as, area, production, prices, land utilization, etc. tend to give materially different figures; but in more recent times, as the method of collecting and reporting the data and the coverage given have substantially improved, figures are found not only to approximate more closely to reality but to tally with one another from source to source, particularly, in respect of figures of land transfer and land prices.

A GENERAL DISCUSSION ABOUT THE PACE OF RISE IN LAND
PRICES IN PUNJAB : 1862-63 to 1962-63

Before the advent of the British rule in Punjab, land was hardly saleable in that province. Prior to the Mutiny, transfers were rare and land commanded little price. The average price was Rs. 8 per acre in 1862-63, and Rs. 10 in 1866. The quinquennial average of 1862-63 to 1866-67 was about Rs. 13 paid by the government as compensation for land acquired for public purposes. Between 1869 and 1874, the average price rose to Rs. 14 per acre and the average area sold was 86 thousand acres. In 1889-90, however, the figures rose to Rs. 28 per acre and 339 thousand acres respectively. At the turn of the century (1899-1900), the area transferred fell off to 275 thousand acres but the price per acre rose to Rs. 47 on the average. On the eve of the World War I (1913-14), these figures stood at 209 thousand acres and Rs. 144 per acre respectively. At the beginning of the World War II (1938-39), a further rise in area transferred (256 thousand acres) and a sharp increase in the average value per acre (Rs. 257) were recorded. But the highest peak of this century for undivided Punjab was reached in 1944-45: 287 thousand acres transferred and Rs. 807 as average price per acre. The year of partition (1947-48), however, witnessed the unprecedented increase to a new height of Rs. 1252 per acre for East Punjab, although the area transferred was naturally much less, namely, 22 thousand acres. The diminution in acreage transferred was presumably due to diminution of the administrative size of the State, and the increase in price per acre may have been due to hectic and massive migration of population from Pakistan part of Punjab and hasty bid for lands in East Punjab. And, of course, this height was never regained in present Punjab (upto 1963) in spite of spectacular agricultural prosperity and land productivity attained through programmes of investment under the Five Year Plans. However, in 1962-63 the total area transferred increased to 348 thousand acres and the average price per acre to Rs. 891 (after recovering from a low depth of Rs. 574 per acre in 1957-58 which has to be explained by events of the time).

And so, the circle is complete : from 1862-63 to 1962-63. In a century, the average price of an acre of land in Punjab rose from Rs. 8 to Rs. 891 or by about 111 times.

CULTIVATED LAND VERSUS ALL TYPES OF LAND

The average price per acre of cultivated land may be compared to that of all types of land as far as available. In 1896-97 the average price of cultivated land was found to be Rs. 78 per acre as against Rs. 43 for all types of land in that year. And since then the position at important time periods (upto 1962-63) had been as follows :

TABLE 1
Average Price of Land per acre in Punjab (in Rs.)

Year	All types of land	Cultivated land
1899-1900	47	81
1913-1914	144	249
1938-1939	257	451
1944-1945	807	1170
1947-1948	1252	1589
1962-1963	891	1001

One conclusion that is obvious is that the average price of cultivated land during the 64 years as quoted ruled always higher than that of all types of land. This is understandable in the sense that "cultivated" lands must always be better than "cultivable but not cultivated" lands or "uncultivated wastes" or less fertile lands on the fringes of forests and hilly areas—if these latter were at all included in land transactions of "all types" mentioned. But "all types" of land must also include "urban" lands which may have been bought and sold.¹

Generally, the pace of increased urbanization in Punjab must presumably, have pushed up prices of lands in towns, cities and their suburbs. But this phenomenon does not seem to have been reflected in the relative price movements given. We may, however, assume that the number, volume and frequency of transfer of "urban" lands must have constituted a very insignificant proportion of "cultivated" lands which are included in the total, that is, "all types" of lands transferred and recorded and as mentioned here.

One point more that may be noted is that although the prices of cultivated lands have throughout moved on a higher plane, yet within the same graphical segments and time spans both sets of prices have tended to vary directly and fluctuate in a more or less parallel zigsaw manner.

ANALYSIS OF TIME-SERIES DATA

Fluctuations and trends : In the following paragraphs an attempt is made to apply certain statistical formulae² in order to analyse the character of cyclical and secular movements of land prices.

Cultivated land : Regarding the movement of prices of cultivated lands over time, we hardly notice any fluctuation between 1896-97 and 1912-13. The movement looks monotonous, even and flat. Between 1912-13 and 1947-48 fluctuations in the data are discernible. Generally from 1913-14 to 1925-26, the period of cycles is 4 years. From 1925-26 to 1947-48, the period ranges from 3 to 6 years. In fact, between 1913-14 and 1947-48, there are 8 cyclical

periods : 3 of 4-year periods, 2 each of 5-year and 3-year periods and 1 of 6-year period. So, on the whole, a 4-yearly Moving Average method has been tried to smooth the data.³

Between 1947-48 and 1962-63 : The given data do not show any upward rising regular cyclical fluctuation. Rather they exhibit a deep depression with a steep fall in 10 years from 1947-48 to 1957-58, but the trough seems to have ended itself in 1959-60 and two minor cycles are discernible between 1956-57 and 1962-63 but what has happened ever since cannot be guessed in the absence of more recent data.

ANNUAL AVERAGE RATE OF INCREASE IN LAND PRICES
PER YEAR

A linear trend equation⁴ is fitted to find out the average annual rate of increase of the average price per acre of (a) all types of lands, and (b) cultivated lands separately over certain selected periods, such as 1869-74 to 1912-13, 1912-13 to 1925-26, 1925-26 to 1938-39, 1938-39 to 1947-48, and 1947-48 to 1961-62. The choice of these periods represent the two sets of land prices : broadly by their ranges of cyclical fluctuations and trends. The last year of each period is marked by a new peak of higher price in a long-term upward rising curve. Again these periods more or less coincide with military or socio-political and economic events of wide importance : the First World War, the post-war inflation of 1920's, the World Economic Depression of 1930's, the Second World War, the Partition of India (1947), and, finally, the end of first two Five-Year Plans (1960-61). The average annual rate of changes in land prices per acre over the respective periods is shown in the table below :

TABLE 2

Period	Average rate of yearly increase (+)/decrease (-) (in Rs. per acre)	
	All types of land	cultivated land
Between 1869-70 to 1873-74 (Av.) and 1912-13 (1896-97 to 1912-13 for cultivated land).	+ 1.54	+ 3.14
1912-13 to 1925-26	+ 14.42	+ 23.21
1925-26 to 1938-39	- 1.39	- 0.76
1938-39 to 1947-48	+101.99	+117.42
1947-48 to 1961-62	- 17.19	- 33.09

IMPACT OF SOME EVENTS ON LAND PRICES

We may presume that the event mentioned above produced certain impacts on land prices from period to period. This may be verified from figures of absolute prices of land, their Index numbers and percentage variations over these periods, as in the table below :

TABLE 3

Periods	Average price of all lands per acre			Average price of cultivated land per acre		
	Increase from Rs. 14 in 1873	Index base 1873=100	Increase from 1873 by-	Increase from Rs. 78 in 1896-97	Index base 1897=100	Increase from 1896-97 by-
1	2	3	4	5	6	7
1. 1873 to 1912-13 (First Census decade to First World War)	Rs. 71	507	407%	Rs. 107	137	37%
2. 1873 to 1925-26 (First Census decade to post-war Inflation)	Rs. 285	2034	1934%	Rs. 477	612	512%
3. 1873 to 1938-39 (First Census decade to Second World War)	Rs. 257	1836	1736%	Rs. 451	578	478%
4. 1873 to 1947-48 (First Census decade to Partition of India)	Rs. 1252	8943	8843%	Rs. 1589	2037	1937%
5. 1873 to 1961-62 (First Census decade to end of Second Plan)	Rs. 864	6171	6071%	Rs. 959	1229	1129%

We find that the average prices per acre of both types of land were presumably pushed up by the two Wars and Partition but comparatively retarded and depressed by the impact of World Economic Depression preceding the Second World War (as in 1938-39); and as the tremendous impact of Partition wore itself out, prices were again brought down a little. These are to be explained, among other events, perhaps by the movement of crop prices.

SIGNIFICANCE OF SHIFTING THE BASE OF COMPARISON

The proportionate increase in the given land prices and their variations may be shown by taking 1873 and 1939 as two different base years of comparison:

TABLE 5

Percentage Increase in Land Prices: 1871-1962 (Bases: 1873 and 1939)

Registration year	All types of land per arce		Cultivated land per acre	
	From 1871* (Rs. 14) in per cent	From 1939 (Rs. 257) in per cent	From 1897 (Rs. 78) in per cent	From 1939 (Rs. 451) in per cent
1912-13	407	-72	37	-76
1925-26	1934	11	512	6
1938-39	1736	0	478	0
1947-48	8843	387	1937	252
1960-61	5464	203	1012	92
1961-62	6071	236	1129	110

*The average price was observed to be the same (Rs. 14) in 1871 as in 1873.

Although land prices fell off from 1947-48 to 1960-61, they rose again in the next year and this is true for all situations, that is, for both the types of land and for both the base years as points of comparison. However, the tempo of rise in land prices becomes less spectacular if we shift the base of comparison from 1871 to 1939. This is natural because we move here from a lower to a higher base. In a study of such long-term time-series data, shifting the base to a more modern period is only realistic. Secular changes

over a period of about a century must in any case show a trend for marked rise (unless the end-period is marked by the nadir of an unprecedented World depression such as in 1930-34). The year 1939 is generally accepted as normal in many respects and one is interested to know what has happened to land prices during and after the 2nd World War, and independence of India. In this context, it will be more meaningful to say that so far as the current generation of Punjab's farmers or investors in land are concerned, land prices have increased by 236% (for all types of land as in col. 3) and by 110% (for cultivated lands as in col. 5) between 1939 and 1962, than to say that they have risen by 6071% and 1129% respectively from the times of their great-great-grandfathers.

MONEY VALUE VERSUS REAL VALUE OF LAND

So far we have dealt with changes in land prices in money terms; these are measured in terms of wheat equivalent in the table below. Such a comparison becomes necessary if we are to assess the real value of the acre of land itself in commodity terms. This is done here by expressing the purchasing power of money and exchange value of an acre of land in terms of wheat from period to period.

TABLE 6

Year	Average value per acre of all types of land		Average value per acre of cultivated land	
	In Rs.	In wheat equivalent (in Maunds =82.286 lbs)	In Rs.	In wheat equivalent (in Maunds =82.286 lbs)
1871	14	6.42	—	—
1881	20	7.46	—	—
1891	33	12.04	78*	28.47
1901	46	17.29	83	31.20
1911	75	25.25	129	43.43
1921	221	28.96	345	45.22
1931	268	124.07	420	194.44
1941	296	75.70	435	111.25
1951	735	46.66	903	65.05
1961	779	51.69	867	57.53

*Relates to the year 1897.

For one thing, it may be noted that the amount of Rs.779 paid for an acre of land on the average in 1961 which, on the face of it, looked much higher than the sum of Rs. 268 paid in 1931 for an acre, was in fact, much lower in terms of wheat, for while only about 52 maunds was equivalent of the money value of an acre of land in 1961, as much as 124 maunds was offered for the money value of a similar acre in 1931. Money here creates a veil and the illusion that the average price of an acre of land was "higher" in 1961 than in 1931 (or, again, than in 1941).

WHEAT ECONOMY AND CROP PATTERN OF PUNJAB

This discussion is suggested by the question: Do wheat prices have any influence on prices of farm lands in general?⁵ It is obvious that a weighted index of combined retail or farm (harvest) prices of the principal crops of Punjab would have been a more appropriate yardstick to measure the impact that crop prices may produce on prices of cultivated lands. There is no room here for a discussion on the crop pattern and farm economy of Punjab and of the relative importance of crops, crop outputs, and their overall influence on land prices. It is, however, observed that among nine major crops of the State in 1951-52, wheat ranked first in respect of area under it (3.21 million acres) and second in terms of its value output (Rs. 179.4 million).⁶ But the position shifted in 1961-62 when wheat came out second in respect of area it covered (5.54 m. acres) and first in value output (Rs. 1144.6 million). The importance of wheat crop in Punjab's agriculture is seen from another angle: a high proportion—varying from 26 to 40 per cent—of the Net Sown Area of the State (province) is occupied by this single crop. Thirdly, both the area and yield of Punjab wheat cover a high proportion of wheat area and yield in India as a whole—varying from 16 to 36% of all-India area and 22 to 43% of all-India production of wheat in different periods. Finally, the average yield per acre of wheat in Punjab has always exceeded that of the all-India level.⁷ It is for all these reasons that wheat prices are taken as the mirror to reflect land prices.

RELATION OF LAND PRICES WITH WHEAT PRICES, INDEX OF GENERAL PRICES, AVERAGE YIELD AND VALUE-OUTPUT OF WHEAT PER ACRE

Two sets of data may be considered. First, percentage variations in retail wheat prices and in land prices of Punjab and those in the General Index of wholesale prices of India (Appendix 3). From the given data it is observed that retail wheat prices and General Index of wholesale prices rose moderately from 1873 to 1912-13 and to 1925-26 (wheat by 79% and 212% and the General Index by 37% and 127%). In the same period land prices rose steeply (by 407% and 1934% in respective years in case of all types of

land). From 1925-26 wheat prices and the General Index fell off sharply in 1938-39, though of course, they maintained a higher level from the base year (1873) by 41% and 32% respectively. But in that year (1938-39) land prices were 1736% higher than in 1873. Wheat prices and General Index continued to rise higher and still higher both in 1947-48 and 1961-62, while land prices having sharply risen in 1947-48 fell off to a relatively lower level in 1960-61 (from 8843% to 5464% compared to 1873), although rising somewhat higher (to 6071%) in 1961-62. However, as observed earlier, to appreciate the real significance of the phenomenon of inflation or higher prices in more recent times, 1939 should be a better base of comparison. In this respect we find that while wheat prices rose from that base (1939) by 406% in 1947-48 and by 421% in 1961-62, and the General Index rose by 197% and 368% respectively, land prices, however, rose by 387% in 1947-48 and 203% in 1960-61 in the case of all types of land, and by 252% and by mere 92% in the case of cultivated lands in these respective years.

We may conclude, therefore, that land prices in the State, when compared to the proportionate increase in commodity prices, apparently did not increase unreasonably high since 1938. This conclusion is reinforced if we take non-official or open market commodity prices into account and compare the proportionate increases in the respective spheres.

The second set of data presented here relate to absolute land prices per acre, retail⁸ wheat prices per maund, average yield of wheat in ton per acre and the acreage value-output of wheat in Punjab over 9 decades (1871-1961) (vide Appendix 4).⁹ It appears that all the variables moved in the same upward direction between 1891 and 1921 but sharply fell off from 1921 in 1931 except land prices (ignoring the peak that, we already know, was gained in 1925-26). However, from 1931 upto 1961, all the variables dealt with here are again observed to move in an upward direction. Thus we get two segments or time periods for comparison of the trend forces concerned: One from 1891 to 1921 and the other from 1931 to 1961—with 1891 and 1931 as respective bases. This is occasioned by a sudden break at the point (1930) roughly from when the world depression set in.

CONCLUSION

The analysis of time-series data on land prices made earlier in respect of their fluctuations and trend may now be restated in discussing the shape of the curves over time representing retail wheat prices in Punjab and all-India General Index of wholesale prices so as to compare, as far as possible, the relative range and amplitude of fluctuations and trends in all the sets of data, namely, two commodity price curves compared to two land price curves. The difference in the features of movements and fluctuations (allowing for the different levels of respective origins and units of measurement of prices on the

ordinate but recognising that the unit is the same for the time periods shown on the abscissa) in both these sets of curves is obvious. The commodity price curves slumped heavily downwards during the period of World Economic Depression: In 1931 the all-India General Index curve sagged to the level of 1911 and the wheat price curve to that of a much earlier period, 1886. It took a long time for these commodity prices to recover and get back to the pre-Depression position (1929)—as many as 13 years in the case of both wheat prices and General Price Index (1929 to 1942). The two types of land prices, however, generally maintained an upward trend from 1929-30 to 1938-39, despite short-term cycles within this period. Between 1920 and 1941, no trend is discernible in commodity prices, whereas the trend is clear in respect of land prices in the same period, and, so also, as noted earlier, in the longer period from 1913-14 to 1947-48. On the other hand, retail wheat prices in Punjab exhibited clear trends in two different periods of time—one from 1884 to 1920, and the other from 1931 to 1951.

This absence of an exact parallel between the pitch and paths of movement of respective commodity and land price curves, and, secondly, the absence of an upward trend in the former set of curves during the period mentioned, cannot perhaps be explained by any single cause or event. Some degree of correlation between the variables, as suggested before, may be presumed; it is perhaps also correct to conclude that not only wheat prices but the average yield and value-output of wheat per acre in the State did, in varying degrees, affect farm land prices over time. But the impact of other variables, not considered here, must also be taken into account. And this raises a presumption that there were forces at work, perhaps other than pure economic forces, which must have significantly influenced the trend pattern including such average prices in the land market of Punjab, particularly in the inter-War period. And this suggests issues which are beyond the scope of this paper.

APPENDIX I

Long-term Trends in Prices of Cultivated Land : Punjab (1913-14 to 1948-49)
(Four yearly moving average)

Year	Two Yearly Centred Moving Average (in Rs. per acre)	Year	Two Yearly Centred Moving Average (in Rs. per acre)
1913-14	—	1931-32	411
1914-15	—	1932-33	416
1915-16	218	1933-34	412
1916-17	219	1934-35	415
1917-18	227	1935-36	402
1918-19	249	1936-37	393
1919-20	280	1937-38	405
1920-21	313	1938-39	412
1921-22	343	1939-40	431
1922-23	368	1940-41	461
1923-24	391	1941-42	517
1924-25	409	1942-43	653
1925-26	418	1943-44	801
1926-27	413	1944-45	921
1927-28	397	1945-46	1084
1928-29	394	1946-47	1195
1929-30	402	1947-48	1220
1930-31	403	1948-49	1215

APPENDIX 2

Crop Pattern of Punjab and Relative Importance of Wheat
Main Crops of Punjab : 1951-52 to 1961-62

Crop	1951-52				1961-62			
	Total area covered (in 000 acres)	Index of crop rank in area	Total value output (Rs. million)	Index of crop rank in value	Total area covered (in 000 acres)	Index of crop rank in area	Total value output (Rs. million)	Index of crop rank in value
Wheat	3207	1	179.4	2	5536	2	1144.6	1
Gram	1861	2	464.3	1	5625	1	639.7	3
Bajra	1826	3	159.8	3	2178	3	122.4	7
Maize	727	4	82.1	5	1296	5	223.4	6
Jowar	588	5	28.6	8	773	7	16.3	9
Barley	546	6	18.2	9	467	9	50.4	8
Rice	526	7	76.9	6	1103	6	268.2	5
Cotton :								
Desi +								
American	518	8	104.7	4	1461	4	431.7	4
Sugarcane	388	9	37.7	7	670	8	847.1	2

Source : Season and Crop Reports of Punjab

Relative Importance of Wheat in Punjab and India

Year	Area under wheat (Punjab) in 000 acres	Wheat area as % of net sown area (Punjab)	Punjab wheat as % of all India wheat		Average yield per acre (in tons)	
			re. area	re. yield	Punjab	All-India
1871	6354	30.10	—	—	0.38	—
1881	7248	35.33	36.45	—	—	—
1891	6224	32.34	23.02	23.30	0.23	0.22
1901	8024	37.31	34.22	32.93	0.25	0.26
1911	9981	40.23	35.38	38.36	0.35	0.32
1921	9981	38.44	35.38	42.57	0.42	0.35
1931	9080	32.96	36.17	38.07	0.30	0.29
1941	3960	27.05	16.30	22.08	0.38	0.28
1951	4129	26.02	17.65	27.13	0.40	0.26
1961	5358	29.76	16.87	23.85	0.47	0.33

APPENDIX 3

Percentage Increase in Retail Wheat Prices, and Land Prices in Punjab and General Index of (Wholesale) Prices in India

Year		Retail wheat prices (Punjab)		General index of wholsale prices (All-India)	
		base : 1873=100	base: 1939=100	base : 1873=100	base : 1939 =100
Crop-Year	Calendar Year	Increase by	Increase by	Increase by	Increase by
1912-13	1912	79%	17%	37%	2%
1925-26	1925	212%	104%	127%	69%
1938-39	1938	41%	8%	32%	-2%
1947-48	1947	674%	406%	298%	197%
1961-62	1961	697%	421%	527%	368%

Land Prices (Punjab)

Registra- tion year	Calendar year	All types of land per acre		Cultivated land per acre	
		From 1873 =Rs. 14 increase by	From 1939 =Rs. 257 increase by	From 1897 =Rs. 78 increase by	From 1939 =Rs. 451 increase by
1912-13	1913	407%	-72%	37%	-76%
1925-26	1926	1934%	11%	512%	6%
1938-39	1939	1736%	0	478%	0
1947-48	1948	8843%	387%	1937%	252%
1960-61	1961	5464%	203%	1012%	92%
1961-62	1962	6071%	236%	1129%	110%

APPENDIX 4

Land Prices, Wheat Prices, Average Yield and Value Output of Wheat Per Acre in Punjab 1871-1961

Year	Average price of land (in Rs.) per acre (Punjab)		Index number of prices of land per acre (Punjab)				Retail price of wheat (in Rs.) per md. = 82.286 lbs (Punjab)	Index number of retail price of wheat per maund		General index (wholesale)		Wheat per acre (Punjab)	
			All types of lands		Cultivated lands			Punjab		All-India		Average yield (in tons)	Average value output (in Rs.)
	All lands	Cultivated lands	Base 1873=100	Base 1939=100	Base 1896-97=100	Base 1939=100		Base 1873=100	Base 1939=100	Base 1873=100	Base 1939=100		
1871	14	—	100	5	—	—	2.18	115	75	93	69	0.38	22.48
1881	20	—	143	8	—	—	2.68	142	93	96	72	—	—
1891	33	78	236	13	100	17	2.74	144	95	98	73	0.23	17.20
1901	46	83	329	18	106	18	2.66	141	92	110	82	0.25	18.16
1911	75	129	536	29	165	29	2.97	157	103	129	96	0.35	28.37
1921	221	345	1579	86	442	76	7.63	404	264	236	176	0.42	87.49
1931	268	420	1914	104	538	93	2.16	114	75	127	95	0.30	17.69
1941	296	435	2114	115	558	96	3.91	207	135	174	130	0.38	40.56
1951	735	903	5250	286	1158	200	15.42	816	534	588	439	0.40	167.91
1961	779	867	5564	303	1112	192	15.07	797	521	627	468	0.47	192.81

NOTES AND REFERENCES

1. Routine official annual returns do not show differences between the value of land near a town and in the village interior or between that of irrigated and unirrigated lands. Reports of ad-hoc survey or enquiry committees or commissions, and research publications, however, mention such differences.
2. The author is grateful for the suggestions received from Sri Anupam Gupta, Lecturer in Economics, Visva-Bharati, about the application of linear trend equation and Two-yearly Centred Moving Average formula.
2. Two-yearly Centred Moving Average price (in Rupees) per acre of cultivated land is given in Appendix 1.
4. $b = \frac{N \sum XY - \sum X \sum Y}{N \sum X^2 - (\sum X)^2}$ where 'b' represents the average rate of change of land price per year in rupees per acre: N represents the number of years (taking base year=0), X is the year index, and Y the observed average value in rupees per acre of land.
5. Price data on wheat-producing lands for Punjab over the period considered are not available, as far as the author knows.
6. Vide Appendix 2.
7. Vide Appendix 2.
8. Farm (Harvest) prices and wholesale prices of wheat, when tabulated, may also be compared.
9. A conclusion suggests itself (not borne out by applying statistical formula) namely, that there may be significant correlation between the variables mentioned.

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K. SURESH SINGH

Tribal Land Organization in Chhotanagpur and its Development

SOURCE-MATERIALS

REPORTS on Settlement operations in Ranchi and Palamau districts constitute the primary source of information about the changing pattern of tribal agrarian system in Chhotanagpur. Census reports, particularly earlier ones, do not bring out all aspects of changes in developing agrarian institutions and relationships in tribal regions; the gazetteers are partly based on settlement reports and are, at best, only a secondary source of information. During the latter half of 19th century, settlement operations in tribal areas were confined to selected regions and undertaken with a limited object: settlement of government estates in Palamau in 1872 and 1894-97 was launched to survey the area, fix rent and bring about stability in agrarian relations; in Ranchi, the *Bhuinhari* Survey from 1869-1884 and then the survey of the Chhotanagpur estates in 1884 were designed to remove long-standing grievances of tribal peasantry. It were, however, the cadastral and revisional settlement reports in the early decades of the present century, which laid the foundation of village statistics in non-*ryotwari* region and threw up massive data and statistics which make a study in changing pattern of agrarian organisation and relationship possible. No settlement operations have been undertaken for Ranchi and Palamau since the thirties, and, therefore, the changes in intervening years have not been adequately reported.

DEVELOPMENT OF THEORIES ABOUT TRIBAL AGRARIAN ORGANISATION IN CHHOTANAGPUR

Early British administrators, S. T. Cuthbert, Dr. John Davidson and

E. T. Dalton built up the theory of tribal peasant proprietorship: the *Bhuinhars* or original clearers of the lands held their lands rent-free or at half the village rent, and they were later reduced to the status of the ordinary *ra'iyats* by aliens (*Dikus*). This theory of peasant proprietorship was reiterated by the German missionaries with their German agrarian background and their Sardar wards who clamoured for the restoration of their rights as *Bhuinhars* or peasant proprietors. During the *Bhuinhari* settlement of 1869-1884, Rakhhal Das Haldar, Special Commissioner, in the course of his investigation into land revenue system, characterised the tribal agrarian system of *Khuntkatti* system in Chhotanagpur as a "non-Aryan commune". But these administrators had probably limited their investigation to the plains of Tamar or *Bhuinhari* regions; it did not extend to the *Hasada* and *Bir Kandar Disum* (the valleys of Kanchi and Karkari rivers where *Khuntkatti* system survives intact). Haldar had only a glimmering of the communal system; he did not develop any theory of it. It was only after the Birsa movement which started in *Khuntkatti* region (1895-1901), and the consequent preparation of Rev. J. Hoffmann's famous memorandum on the *Khuntkatti* system, followed by the able studies of Sarat Chandra Roy, that the "communal" character of the Mundas' agrarian system could be fully recognised. Both Hoffmann and Roy were at pains to establish that agrarian disorders in Chhotanagpur resulted from the disintegration of the original communal order into non-communal, feudal or *zamindārī* systems. But this significant finding was not based on detailed and scientific investigation into the communal agrarian system. Both Roy and Hoffmann attributed the dilution and disintegration of the communal system to the influence of the *Dikus*, the aliens. Except for some hints, they did not indicate the range of acculturation, the extent to which non-tribal communities had been absorbed into their agrarian system and contributed to its present character. They also over-simplified the historical process of disintegration of the communal system. Roy overlooked the inner contradictions in the tribal body politic, the antagonism between Mundas and *Pahans*, sharpened by the British contact with them.

NATURE OF AGRARIAN SYSTEM: HISTORICAL AND ETHNIC

Tribal agrarian system in Chhotanagpur was shaped by the interplay of Kolarian (Munda-Bhumij) and Dravidian (Oraons, Chero-Karwars, Kharias and Nagas or Naghansis) agrarian elements.

The Dravidian elements were: institution of kingship (Raja) with special powers, division of villages into *Khunts*, rent-free tenures for worship of Gods and for village chiefs, creation of *Rajhus* tenure of Raja and his "grain-share". The Kolarian system, probably communal (Munda agrarian system today has more communal elements than Oraon) was marked by the absence of any kingship and central government, and regular system of payment of revenue.

As a result of the intermixture of the two racial systems, the Dravidian (Naga) institution of kingship was grafted on to the Munda institutions. *Patti*, and such special tenures (as their names will indicate) as *Deotar*, *Mahto*, *Majhias* were incorporated into the agrarian complex that developed in Chhotanagpur. Important tribals such as Mundas, Bhumij and Oraons developed from pastoral into agricultural communities.

The thesis of Baden-Powell (Baden-Powell: 118-20) regarding Kolarian and Dravidian elements coalescing to form the tribal agrarian system has to be further developed in the light of the findings of the settlement operations; it will show up inaccuracy of missionaries' and early anthropologists' description of its break-down in terms of corrupting influences of Hindus. In fact, the Dravidian elements had already undermined the Kolarian communal influences and the *Bhuinhars* had prevailed, by their superior technique of production over the communal Kolarian groups.

THE THREE-TIER LAND ORGANIZATION

The basis of the tribal (Munda) social order was the totemic clan system. Family within *Kili* (clan) into which the tribe was divided formed the unit of production. It was something of an odd "non-Aryan commune" adopted to the institutions of the patriarchal family. Elements of communal life were shared by the members of or the descendants on the male line of the original founders of the village. The principle that those who reclaimed the land owned it or that proprietary rights grew out of one's "creative or formative work" was the basis of the agrarian order. Thus, a Munda would say: "we cut the forest, we plough and sow and weed and properly reap, and *Singhbonga* (Supreme God) sends the rain and the sunshine. What have they—the *Dikus*—done? The daughters had (and still have) no right to property because only those who worked on and created the landed property shared it. The family was the irreducible social unit, the point of inter-section between this world and the next, the abode of the ancestral spirits (who reside in the *ading*, the store-room of the house), of the guardian of the burial-ground where he has to be buried and has to rest with his ancestral spirits, no matter where he dies; it is the guarantee of the "continuity" of the "communion between the living and the dead", of "its inter dependence for happiness or the contrary". The lands within the village were owned not by an individual but the members of the family founded by the original settler. No individual of the village could alienate the family or communal lands like *Sarna* (the sacrificial grove) and *Sasan* (the burial ground), pastures and forest etc. (to this day there is individual cultivation but not individual proprietorship of *Khuntkatti* land). They did not pay rent but voluntary subscription (called *chanda*) to their overlord or the *Raja* who did not claim in theory or in practice any proprietary right over their lands. There was no doubt that

other *ra'iyats*, i. e., relatives on the female side of the *Khuntkattidars*, low Hindu castes like Swansi, Ghasis, Bhogtas or Mahilis, Khangars (called not *Dikus* but accepted by the Munda as adjuncts of their society) who performed non-agricultural functions necessary to the village life. They were subordinate to the main family in the village. The family was fortified by religious ties, institutions of ancestor-worship, festivals and social occasions and had its own moral code rigorously enforced under a patriarchal authority. The community consisting of a large number of families, descendants of common ancestors looked upon itself as a unit, and appointed *Pahan* to perform the religious functions. He was the oldest or eldest member of the family of the original founder and the head of the village family. He presided over Panchayat, was called to settle various kinds of disputes, was the custodian of tradition and customs, inflicted punishment and collected and transmitted the *chanda*. The *Munda* was only second in rank to the *Pahan* and his assistant. In some villages the two offices were combined in the same family. The manifestation of "consciousness of a belonging together, of the family tie" on a higher level was (and still is) the institution of Mankiship, the secular head of a *patti*. The families are grouped into villages and ten or more of such villages belonging to the same sect. He was the "great referee on points of social disputes", or those relating to land and property and other family matters; his duty was also to "represent the family, in its dealing with the Maharaja", to "defend the interests of any of his villages against attempts or aggressions of any kind from another sect or family".

The larger institutions of *Parha* and *Patti* are interesting; these are more geographical than social. The original institution was *patti* as it survives to this day in the closed *Khuntkatti* regions; the *Parhas* (which are Hinduised and the *Parha* Maharaja of Keonara has today assumed the paraphernalia of extinct Hindu *zamīndārs*) exist in the "exposed" *Bhuinhari* region. Moreover, *Parhas* are socially homogeneous; in *Bhuinhari* area villages of some *kili* or clan cluster together. *Pattis* are more heterogeneous, their villages are inhabited by people of many classes, because of the historical reason of their being founded by settlers from Tamar and Nagari regions, who were expelled by *Dikus*, in the wake of tribal uprisings.

At the apex was the tribal chief, grown into a territorial chief (Raja) who claimed a vague over-lordship over the territory. Dravidian institutions from the beginning demonstrated a propensity towards the development of kingship as illustrated by the medieval history of the Cheros and of Nagas in Chhotanagpur and of Ahoms and Bado Kachari tribes in Assam. The position and influence of the tribal chief was much strengthened when he and the members of his family became an acculturated group. Already the interplay of Dravidian and Kolarian elements had introduced many features which were inconsistent with the communal agrarian system. During the later half

of the 19th century the process of disintegration of the communal system grew apace. The factors responsible for it were many. The practice of the Raja of granting *Kharposh* (maintenance *Ĵāgīrs*) of tribal villages to his multiplying relations and that of the latter of granting similar *Kharposh* to their relations set in motion a chain-reaction of forces that undermined the tribal agrarian system in Lohma, Govindpur, Kokariah in Ranchi district. The role of this territorial kingship which continuously enlarged its zone of influence and relationship was crucial in the transformation of tribal land system.

The intermediate plank was formed by the *jāgīrdārs*. Initially, there were tribal *jāgīrdārs* or tribal chiefs, who were, by and large, borne with by their people. Later, they were eclipsed by non-tribal *jāgīrdārs*, the early British policy of giving settlement of tribal areas on temporary leases to *thikadārs* or *iāgīrdārs*, of recognising them as agents of development, of giving protection to their encumbered estates and then to recognise them as *zamīndārs* considerably strengthened their influence against their *ra'īyats*. It was against these elements, and not their Raja, that most of the tribal uprisings and movements in the later half of the 19th century, and even the great uprising of 1857, were directed in Palamau. In 1813 when the Chero kingdom fell, the tribal *iāgīrdārs* were a force to be reckoned with. In 1894-97 the Chero *jāgīrdārs* had been irretrievably replaced by Rajput *jāgīrdārs* in Palamau who became the most dominant force, particularly after the suppression of tribal uprising in 1857 and with large-scale sale and mortgage of Chero *jāgīrdārs'* lands from 1871 onwards. Similarly, the process of sub-infeudation of tenures both *jāgīrdārī* and non-*jāgīrdārī*, revealed that, by 1920, 3599 villages in the district were divided among 14,893 tenures, and the sub-division of a village into a separate rent collecting tenures caused acute discomfort to the *ra'īyats* who had to satisfy the claim of everyone. Similarly, in Ranchi, in 1856, the number of *jāgīrdārs* stood at 600 and they held from a portion of a village to 150 villages, but by 1874 all the old Munda and Oraon chiefs had almost been entirely "effaced" by "Hindu farmers" introduced by their landlords or by numerous holders of religious and maintenance grants.

DIMINUTION OF TRIBAL LAND AREA AND ALIENATION OF LANDS

Corresponding to the growing power of non-tribal *jāgīrdārs* and their violent encroachment on the tribal lands was diminution of tribal land holdings. Even though we may not accept Rev. Hoffmann's and S. C. Roy's thesis about *Pax Mundarica* which extended over a major part of Chhotanagpur once upon a time, it was indisputable that the *Mundari Khuntkatti* areas had shrunk in size. While the extent of their original settlement is not known, except on the basis of place-names which is not a reliable index, it is safe to presume that much force and violence in intervening years had result-

ed in the total destruction of the system except in areas where it survives to-day. The first cadastral settlement report (1902-10) on Ranchi showed that the *Khuntkatti* system was confined to only 156 villages; its wreckage was littered over to 449 other villages in the district. The Chhotanagpur Tenancy Act 1908, which was enacted in the background of violent tribal uprisings led by Birsa Munda sought to recognise and protect Mundari *Khuntkatti* tenancy. Even so the growing impoverishment of tribal peasantry led to transfer of 2432 holdings affecting 3206 acres in contravention of the Act as revealed by the revisional settlement twenty-five years later. Similarly, large-scale illegal transfers of land took place despite the protective clauses of the Act from *Bhuinhars* to non-tribals. The Chhotanagpur Tenancy Act (1908) only stabilised a situation and did not plug all loopholes in the illegal transfer of tribal lands.

Though we have no corresponding figures for Palamau, it was reported in 1920 that the Chhotanagpur Tenancy Act (1908) remained a dead letter in Palamau. The Settlement Report of 1920 revealed that the *jāgīrdārs* and *zamīndārs* did not recognise any tenancy law despite the Act of 1871, and respect the occupancy rights of the *ra'iyat* and that they competed more for serfs than for tenants. The early British administrators oscillated between their characterisation of *raiyats* and terre-tenants as tacksmen and as independent peasantry. While an examination of the results of the Act shows that it had reduced the number of *Zarpeshgi* and given the *ra'iyats* a sense of greater security of tenure, there were many points of leakages which consisted of evasions of the provisions about illegal transfers. Even substantially, the Act has not been able to check the alienation of tribal lands to non-tribals; it does not bar a civil court from taking cognizance of such cases. The primacy of tenancy laws over civil or central laws is not recognised.

DILUTION AND DISAPPEARANCE OF TRIBAL VILLAGES AND TENURIAL PRACTICES

Another important change has been in regard to the nature of tribal villages. The intact Mundari *Khuntkatti* land system was broken up forcibly or by deceit and undermined by dissention and greed from within. The agrarian relationship within a tribal village itself underwent changes. The *Pahan*, the village priest, the keeper of sacred grove and intermediary between his people and spirits was eclipsed by the Munda who aped *zamīndārs* and imposed rent on his people. The original *Khuntkatti* villages inhabited by the founders of a client were either uprooted or became heterogenous with new inhabitants.

Another striking change was the extinction of the tribal tenure of the land and the mode of assessment of rent on it. Tribal laws recognised the right of a member to reclaim and cultivate as much of upland as he could;

this was because upland was suited for "slash and burn" and cotton cultivation. The *zamīndārs* also recognised this right under *Pariadari* system which allowed the *ra'iyats* to cultivate his *bari* land near his homestead or rice lands and rich upland in addition to unspecified quantity of uplands; it was also assumed that any expansion of his holding in regard to the upland would be indicated by reclamation of new rice lands. But this system was broken up by *zamīndārs* anxious to enhance their rent. Some of them straightway abolished the system and measured all the lands in a village according to the *bigha* standard. Similarly, other systems of rent assessment without actual measurement were prevalent in old days which were not based on quality or classification or productive power of land, the *raison d'être* of which was a tribal cultivator's abhorrence of delay, expense and trouble. These were abolished, and replaced by imposition of cash rent worked out on the basis of standard measurement of land. Thus, in 1872 there were 294 *Pariadari* villages and 401 *Uttakari* villages in Palamau (Forbes: Table 4: VI). Within twenty years *Pariadari* villages had disappeared, leaving a few holdings; *Uttakari* villages had dwindled to 238. These dropped out within another twenty years, and all holdings were converted into *ra'iyat* holdings (Sunder: 62).

PROVISION FOR SECURITY OF TENURE: ABOLITION OF PRAEDIAL CONDITIONS AND FORCED LABOUR

Another trend had been towards providing, despite all limitations, security of tenure to tribals in the wake of tribal movements and uprisings which resulted primarily from agrarian tension and which took a conscious and violent turn towards the end of 19th century. Forced labour (*Bhet begari*) and praedial conditions were not only inconsistent with the tribal organisation, their proliferating and exacting incidence since 1880 became galling to conscious Christian tribals and to tribals in general. The *jāgīrdārs* had sought to change voluntary subscription or quit rent of *Khuntkatti* villages into rent, an incidence of a *zamīndārī* system. Reid in 1902 catalogued twenty-one praedial conditions. *Dasai* (payment to the landlord at the time of Dasahara), *Batta* (an allowance for exchange of sicca rupees into Company's rupees), *Bhatta* (a charge to meet expenses of the landlord and his servants on their visit to village), *Rashid likhai* (payment at the time of giving rent receipts), *Dak mushara* (dak cess), *Neg* (customary payment on marriage etc.), *Nawarkhani* (a contribution of rice on an auspicious day), *Danr pancha* (contribution made by a *ra'iyat* cultivating *taur*), *Ninako dhan*, *Bhandari dhan* (contribution for support of village Bhandari), *Ogra dhan* (contribution for support of village official who guarded forest), *Mahua behari* (for enjoyment of Mahua), *Kathar behir* (for jack fruit tree), *Rakhi behire* (for Rankhi festival), *Brahmni niksari* (fee to Brahmin at various festivals), *Shikar khasi* (presents to

be given to *zamīndār* when he went out for shooting), *Thana kharcha* (for support of police), *Dardan ghee* (ghee offered at the time of *dasai*), *Saltmani* (cash payment at the end of agricultural operation), etc. The incidence of forced labour (*bhet begari*) “renderable in a typical village in Ranchi” was found to be as follows : 3 days’ ploughing (*har*), 3 days’ digging (*kore*), 3 days’ planting or sowing (*ropini*), 3 days’ cutting (*kotni*), 1 day’s thrashing (*misri*), 1 days’ storing the grain (*morabandhi*), 1 or 2 days’ carrying to landlords’ godown on his journeys (*des bides*)—in all fifteen days. Some attempts were made to regulate these conditions in 1890-1897 in Ranchi, and not in Palamau, but it took a violent and armed uprising to convince the authorities that these could not be continued. The systems were therefore abolished and commuted in 1902-10. Twenty-five years later, Taylor reported that, by and large, the commutation of *begari* and praedial conditions held good, that the landlords preferred to get money value to receiving them in kind and that praedial conditions had almost disappeared in Ranchi district. Similarly, *awab* was found restricted to realisation of receipt *likhai*, that is the charge made by landlords’ agents for granting receipts and some petty incidence ; *begari* has ceased to be rendered by tenants. The few surviving incidences were completely and irrevocably abolished after the enactment of Land Reforms Legislation in the fifties.

The commutation of rent, *begari* and praedial conditions into rent, and of *bhauri* into cash rent (1946-47) and the enhancement of rent contributed in a small way to the monetisation of tribal economy.

AGRICULTURAL LABOUR

Agricultural labour in tribal and semi-tribal areas consisted of *dhangars*, *begar* and *kamias*, all employed on cultivation of lands and reclamation of new lands. *Dhangars* in tribal areas being tribals were socially acceptable in tribal households and enjoyed some respectability and got relatively good wages. *Begars* were free labourers after the enactment of the Chhotanagpur Tenancy Act. The last development of *begari* was the *kamiyauti* system which was reported in Hazaribagh and surveyed in Palamau in 1918. The authors of settlement and administrative reports have called *kamias* slaves and serfs but historically they were neither, though figuratively they were. They were, and are, bonded labourers, and the survey of 1918 throws interesting light on their institution, *kamiyauti*, *kamias* were mostly members of semi-tribal communities such as Bhuiyans, Chamars, Kahars and Dusadhs. There were two categories of *kamias*—free *kamias* who were wholly supported by labour at a sweated wage generally bound for the year atleast to work for a single master though they received no loan, and the true *kamias* often called a *sevak*, *sambak* or *saunk* in his master’s debt and bound to work as directed on a specified dole of food in lieu of interest until he pays back the money. The institution

of *kamiyauti* was typical of a poor, agriculturally backward and socially retrograde semi-tribal district dominated by *jāgīrdārs* and *thikadārs*, and it grew out of the acute indigence and helplessness of the *ra'īyats*. The reasons for the depression of the tenantry were their uneconomic holdings too small to support himself and his family, and forced labour on a mere dole at the time of a year when there is a general demand for labour, little support or income from forest produce such as lac, high incidence of rent which made difficult extension of proper cultivation in a district full of unoccupied land, insecurity of tenure and severity of rent incidence which cramped development. To these were and are added, the social and economic compulsions which constitute the ostensible causes of *kamiyauti* : these are the necessity of incurring expenditure over marriage which is encouraged by the landlord anxious to secure an "extra female serf", pay arrear of rent, and unavoidable expenditure on birth and death, and general economic depression. These factors forced *kamia* to go in for his master's debt for a fixed term of years. In most cases, it is hereditary servitude to the master. Once a *kamia* always a *kamia*. Some of the *kamia* agreements are written documents on a stamped but unregistered paper. He gets no wages but doles, about two to three seers *kutchā* of any foodgrain. Since the *kamias* are employed mostly by small landlords, the big landlords preferring *begar* or free labour, they are not assured of regular employment, and are not paid for idle days. Thus the *kamia* finds employment for only 240 days, i. e., 2/3rd of the year, and the range of his activities extends from agricultural operations to mending roads, making charcoal for his master and doing other menial work himself or through his wife. In return, he would be given free land to construct his hut, and the landlords recognise the right of the *kamia* to retain his hut and homestead land even when he is emancipated or transferred to another master. In addition, he would get *palhath* land, i. e., a very small area of additional land generally one-quarter of a *bigha* of rice land or a similar area of upland which is held on service tenure and is returned to the employer once he gets out of his employment. With some exceptions, the *kamia* has to provide his own seeds and some times pay in labour for use of his master's plough. The family budget of a *kamia*, it was found out, amounted to 400 seers of rice, 40 seers of maize and Rs. 3/- a year, which was below subsistence level. The only mitigation of the system was that his master desired to keep him alive. From the findings of such economic investigators as Mann (*Life and Labour in a Deccan Village*), and J. C. Jack (*Economic Life in a Bengal District*), we know that while his counterpart in Faridpur would get 880 seers of rice and limited fish and Rs. 40/- for clothes and extras working half as ardously, Palamau *kamia* would not get beyond 450 seers and Rs. 3/- for the year. There were about sixty thousand *kamias* in Palamau in 1918, and they constituted 12% of the total population and 25% of the total number of agricul-

tural labourers and their families. No survey has been undertaken since, but the ratio probably holds good today. The apologist of the system thought that it was the outcome of the "oriental society" and must be looked at from an "oriental angle of vision". It was thought that the Indian Penal Code and its relevant sections would take care of the institution and that with slow improvement of economic condition and enforcement of tenancy laws, security of tenures which would lead to extension of cultivation, an increase of demand for labour and food production in the district, the wages of labour would be raised and the *kamia* system would break down. (*Selections from Palamau Settlement papers* : 84-114.) This prognostication though correct, has not been wholly fulfilled. Bihar and Orissa Kamiauti Agreement Act (Act VIII of 1920) abolished the *kamiauti* system, but the *kamias* still live. The *Census of 1961* attributes the low wage rates in Palamau to statistical inaccuracies, but it overlooks the historical and economic background of the district. The construction of Rihand Dam in eastern U. P. in the fifties which provided opportunities for employment gave a blow to the system in adjoining Nagar region. Availability of employment opportunities elsewhere, development of agriculture and a general consciousness coupled with the difficulties of small land owners have, no doubt, mitigated the rigours of the system.

The above-mentioned trends revealed by settlement reports and the gazetteers from the mid-nineteenth century, such as break-up of tribal villages and land tenures, growing impoverishment of tribal peasantry and their urge for security, have only been accentuated with the passage of time. Alienation of lands, insecurity of tenures and indebtedness continue to be major constraints on development of tribal agrarian organisation.

GLOSSARY

<i>Awabs</i>	.. Charges levied from <i>raiya</i> ts other than rent. These are embodied in the definition of praedial condition.
<i>Agahani</i>	.. That (crop) which is harvested in the month of <i>Agahan</i> .
<i>Bakasht</i>	.. Land in the cultivating possession of the landlords.
<i>Bandhs</i>	.. Embankments.
<i>Bani</i>	.. Wages for daily labour.
<i>Bari</i>	.. First class upland.
<i>Baiga</i>	.. Village priest ; same as <i>Pahan</i> in Ranchi.
<i>Batai</i>	.. Village Produce-rent.
<i>Beora and Daha or Jhuming</i>	.. Burning down jungles for raising snatch-crops.
<i>Bhadai crop</i>	.. The rains crop.
<i>Beth-Begari</i>	.. Exaction of forced labour.
<i>Bhugut Bandhak</i>	.. A kind of mortgage under which the mortgagee cultivates the land until the expiration of the period of the mortgage. Vide section 3(ii). Chhotanagpur Tenancy Act.

<i>Chanda</i>	.. Contribution towards rent payable by <i>Mundari Khuntkattidars</i> to their headman.
<i>Debottar-Jagir</i>	.. A <i>jāgir</i> tenure held in trust for the benefit of a deity. Vide <i>jaḡir</i> .
<i>Diku</i>	.. Non-aboriginal, alien.
<i>Jagir</i>	.. A term used to describe land or tenure held rent-free or on quit-rent on condition of performing service or as a reward for certain services performed in the past.
<i>Jhuming</i>	.. Cutting jungle for shifting cultivation.
<i>Kharposh</i>	.. Maintenance grant.
<i>Korkar</i>	.. Conversion of waste land into paddy-growing land. Vide section 3, Chhotanagpur Tenancy Act.
<i>Mahto</i>	.. A village headman.
<i>Manki</i>	.. The head of a <i>patit</i> , which is constituted usually of 10 or 12 <i>Mundarikhunt katti</i> villages.
<i>Manki-patti</i>	.. The <i>patti</i> or jurisdiction of a <i>Manki</i> .
<i>Majhihas</i>	.. Absolutely privileged lands of the proprietor or tenureholder surved under Act II (B. C.) of 1869 A. D.
<i>Mokarri</i>	.. A permanent lease.
<i>Pahan</i>	.. The village priest.
<i>Paria</i>	.. A system of land tenure when the rent is assessed periodically upon the riceland and the <i>raiyyat</i> is allowed a free hand with up land cultivation.
<i>Pariadari</i>	.. The system of rent under which a <i>paria</i> is the nominal unit of assessment.
<i>Parijauta</i>	.. A tax on certain classes; somewhat similar to <i>Chhaparbandi</i> , levied by the Untari zamindar by virtue of his overlordship. It is not legal.
<i>Rakumat</i>	.. Praedial conditions.
<i>Sarna</i>	.. A sacred grove, belonging to the village community, also called <i>jahira</i> or <i>Jahirsthan</i> or <i>Jhakhra</i> .
<i>Sasandiri</i>	.. The burial ground of the <i>Mundari Khuntkattidars</i> .
<i>Tanr</i>	.. (1) Upland cultivation as opposed to riceland. (2) Inferior upland fields as opposed to <i>bari</i> and <i>bhita</i> .
<i>Tappa</i>	.. A minor fiscal division.
<i>Tari</i>	.. Land by the river side. Same as <i>Kharh</i> . Also the sweepings of the threshing floor.
<i>Thiccadar</i>	.. A lessee.
<i>Thikadar</i>	.. A farmer of rents; one who lives by rent collection rather than cultivation.
<i>Uttakar</i>	.. The term is frequently used to express a system of annual changes in the rent; and frequent ejectments. The system is illegal. It is also applied (1) to assessments of upland imposed in addition to the <i>paria</i> rent, and (2) to assessments where there is no <i>paria</i> or similar system, and lump rentals prevail. The law of "settled <i>raiyyats</i> " gives the majority of <i>raiyyats</i> a statutory occupancy right in <i>Uttakar</i> land.
<i>Zarpeshgi</i>	.. Usufructuary mortgage.
<i>Zirat</i>	.. A kind of proprietor's privileged land.

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Pattern of Agricultural Changes

(Land use, crop pattern, output, technique of production etc.)

B. M. BHATIA

Food Shortage and Agricultural Production in India

FOOD shortage made its appearance in 1880's. It has continued ever since. Recent events have aggravated the shortage but have not caused it. It is the purpose of this paper to show that though India turned short in food supply some time in the eighties of the last century, the proportion of land devoted to the cultivation of foodgrains has been declining since then. This trend has got to be reversed if the problem is to be solved.

There is a widespread belief that the food shortage in India is of recent origin and that far from short in supply, the country had an annual export surplus in foodgrains till about the Great War of 1914. This belief derives its origin from the estimates of production and consumption of foodgrains in 1880 given by the Famine Commission of that year and the fact that the export of foodgrains figured prominently in our export trade in the last quarter of nineteenth and beginning of the present century.

The Famine Commission's attempt at collecting statistical information about production and consumption of foodgrains in British India was a pioneering effort. Since there was a disconcerting increase in the visitations of famine after 1860, the Commission wisely thought of considering the question of adequacy of food supply taking good years with bad, to meet the domestic needs. Its estimates showed that the total area under cultivation in British India, excluding Burma, was 187.75 million acres, of which 166.25 million acres were under food crops and the rest under commercial crops. The total annual output of foodgrains was put at 51.5 million tons and total consumption, on the basis of an estimated population of 181.35 million and making allowance for seeds, wastage and cattle feed, at 47.17 million tons.

There thus remained an annual surplus of 4.3 million tons. Adding to this an estimated available surplus of 8 lakh tons of rice from Burma, the Commission concluded that India had an annual surplus of 5.1 million tons in food grains and that the country had the capacity to feed itself without resort to imports even in a drought year. Table 1 gives relevant details in respect of each province.¹

These estimates were of highly conjectural nature and were attacked by two members of the Commission itself. In a separate Minute of Dissent, Messrs James Carid and H. E. Sullivan stated²: "we are unable to place confidence on the table which shows an annual surplus yield of 5 million tons of food grains. The average annual export of rice and grain from all India is one million tons of food grains, which should thus leave four million tons to be laid by, a quantity sufficient to feed 24 millions of people. As famines come but once in 12 years, there should, in that period, be an accumulated surplus sufficient to feed 300 millions. And yet when famine does come, and then affecting at its worst not more than tenth of that number, it is only by immense pressure on other parts of India, and at quadrupled price that the barest sufficiency of supplies can be obtained. It seems a clear proof that the alleged surplus must be greatly overestimated." Indeed it was. The Commission had estimated the annual consumption, leaving aside waste, seeds and cattle feed, at 38 million tons on the basis of a population of 181 millions. This was in 1880. In the Census held next year, the population of British India was found to be 199 millions or 10 percent more than the Commission's estimate. Adding 10 percent to the estimated consumption of 38 millions on this account, the annual requirement of food grains for human consumption turns out to be 41.8 or roughly say 42 million tons and total consumption at 51 million tons which leaves a surplus of barely half a million tons from the estimated production of 51.5 million tons. This was too small a quantity to rely upon and the situation demanded a serious attention. But the Government was complacent. Its resolution on implementation of the first part of the Famine Commission's Report stated inter-alia, "The Government of India *believes* that there will always be available, in India, a sufficient food supply in un-affected tracts to feed the inhabitants of any area visited by famine, provided the state of communications admits of such food being transported. The prohibition of export can scarcely be justified in any conceivable circumstance and importation and shortage of grain or other similar measures are as a general rule, unnecessary".³

Working from a different premise, viz. the quantity of exports of food grains from the country at the time, Mr. R. A. Gopaldaswami, India's Census Commissioner for 1951 Census, arrived at the "firm" conclusion that "in or about 1880 India was normally surplus in food grains including both rice and wheat and the surplus was of the order of 12 lakh tons".⁴ While this estimate

TABLE I
Famine Commission's Estimates of Food Supply in 1880

Province	Population	Food crop area	Out turn of food	Area under non food crop	Food for human consumption	Seed	Cattle feed	Wastage	Total consumption 5+6+7+8	Surplus
1	2	3	4	5	6	7	8	9	10	
	Millions	000 acres	000 tons	000 acres	000 tons	000 tons	000 tons	000 tons	000 tons	000 tons
Punjab	17.6	18500	5530	2500	3800	390	250	270	4710	620
U. P. (NWP & Oudh)	41.0	31450	11230	5200	8420	820	830	500	10570	660
Bengal	60.0	48000	17100	..	13000	1000	1000	900	15900	1200
C. P.	8.2	12000	2750	2500	1660	460	180	150	2450	300
Berar	2.25	3700	620	2800	400	30	80	30	540	80
Bombay	16.00	21500	4500	5500	3300	290	260	210	5150	350
Madras	31.00	26000	8500	2500	6300	400	440	420	7560	940
Mysore	5.00	5100	1500	500	1100	60	50	75	1285	215
Burma	..	..	..	..	..	..	..	..	..	..
Total	181.35	166,250	51,530	21,500	37,980	3,450	3,090	2,555	47,165	5,165

fits into the estimate of the surplus by the Famine Commission as modified above for the statistical error in respect of population figure on which the original estimate was based, the premise is open to serious objection. In an under-developed colonial economy which has to pay every year a large sum of money in discharge of its foreign obligations, export of agricultural produce is no indication of the produce being surplus over the country's domestic requirements. Mr. Gopaldaswami bases his conclusion on the figure of annual average export of food grains from India around 1880. If exports were an index of the existence or magnitude of the surplus, it would appear that India was increasingly becoming a surplus country in respect of food grains between 1880 and 1908 because exports showed a steady increase during this period. The export of food grains amounted to 2.4 million tons in 1895-96 and 5 million tons in 1904-05. Even in the famine years of 1896-97 and 1899-1900, India exported 1.5 million and 2.2 million tons of food grains respectively. Shall we say that even in a famine year 1806-07 when 4.5 million people died of sheer starvation, and short fall in domestic production was estimated at 19 million tons, the country had a surplus of 1.5 million tons of food grains that were exported ?

It appears that excluding the estimated annual import of rice of about a million tons at the time, the country had reached a point of precarious equilibrium between demand and supply of food grains in 1880 and that any short fall in production due to adverse climatic conditions in any year or increase in demand caused by growth of population was bound to land the country in food shortage. Even if there were a slight surplus in 1880 it must have been wiped out by 1890 on account of the growth of population so that we can categorically state that food shortage in India dates back to 1890.

This conclusion is in line with the findings of K. L. Dutt in his *Report on Rise of Prices from 1890 to 1913*. During the period of his inquiry, Mr. Dutt found that "supply has been short during the greater part of the period embraced in the enquiry".⁵ This, according to Mr. Dutt, was a basic cause of the rise of prices in the period 1890-1913. It is unnecessary to belabour the point further. That the food situation worsened steadily thereafter is brought out by the following table 2.⁶

It will be seen from the said table that while population increased by 38 percent over the period, per capita output of food grains declined by 32 percent. Per capita output of food grains in the last decade of the period was 399 lbs as against 587 lbs at the beginning of the period.

In a situation of growing shortage of food supply in an agricultural country one would expect a shift of emphasis on growth of food crops on the

TABLE 2

Period	Population (Index)	Output of food crops (in index units) per capita	Output of food crops (in lbs) per capita
1893-94 to 1895-96	100	100	587
1896-97 to 1905-06	101	95	560
1906-07 to 1915-16	107	91	547
1916-17 to 1925-26	109	90	538
1926-27 to 1935-36	120	78	461
1936-37 to 1945-46	138	68	329

part of the farmer. What actually happened in India over the last 100 years was just the opposite.

Cultivation of commercial crops had begun to receive State encouragement and support even at the hands of East India Company after 1833. After the transfer of the administration of the country from the Company to the British Crown in 1858, the policy was pursued with still greater vigour. Baird Smith in his Report on Famine in N. W. P. suggested various measures for the encouragement of the cultivation and export of commercial crops like cotton from India. Following the Civil War in America, active steps were taken to encourage the extension of cotton cultivation in India. Other commercial crops which had already received support and encouragement from the East India Company were jute, indigo, poppy and tea and coffee plantation. This policy affected the food supply in the country adversely and the discerning eyes had begun to see, even as early as the sixties of the last century, the perils of this policy. Mr. Cockerell in the course of his enquiries into the famine of Bengal and Bihar in 1865-66 found that "one of the causes (of scarcity of food) was the increasing cultivation of indigo which year by year absorbed a larger area of land which otherwise would have been devoted to the cultivation of cereals".⁷ The Board of Revenue in North Western Provinces noted that extension of cultivation of cotton had resulted in displacement "of autumnal crops, jowar, bajra, pulses, lentils etc., and partly also wheat".⁸ Dr. MacGill of United Presbyterian Church writing to the Secretary of State during the famine of 1870 in Rajputana, drew the latter's attention to "one consideration which cannot be new to Your Grace and of which we have purposely avoided making any use. . . . One cause of the want in Rajputana is the absence of supplies once provided by the fertile plains of Malwa. . . . These are now devoted to the growth of poppy, in consequence, it is believed of the encouragement but to its production by the government".⁹ The Indian opinion was almost unanimous even at that

time on the point, as stated by *Calcutta Review*¹⁰ in 1867, that "the increase in the production of cotton and other commercial crops has led to a decrease in the area formally allotted to food".

The difference made by growth of commercial crops to total area under cultivation of food crops was, however, small at the time. With the opening of Suez Canal in 1869 and extension of railways, the trend in favour of commercial crops was very much strengthened. In 1880, according to the Famine Commission's statistics, the total area under cultivation in British India was 187.75 million acres of which 166.25 million acres were under food crops and 21.5 millions under non-food crops. This roughly gives 89 per cent of the area under food crops and 11 per cent under non-food crops. By 1901 the former figure had declined to 85 and the latter had risen to 15. These trends are brought out by the following table.¹¹

TABLE 3

Quinquennium	Gross sown area under non-food crops (in acres) per 100 acres of gross area sown under food crops	Decennial average
1900-01 to 1904-5	20.0	20.7
1905-06 to 1909-10	21.3	
1910-11 to 1914-15	22.4	21.7
1915-16 to 1919-20	21.0	
1920-21 to 1924-25	22.1	23.7
1925-26 to 1929-30	25.3	
1930-31 to 1934-35	23.8	24.7
1935-36 to 1939-40	25.5	
1940-41 to 1944-45	24.8	

The trend in favour of commercial crops before independence and Partition of the sub-continent is unmistakable. The total area under food crops in 1901-02 was 187.63 million acres forming 85 per cent of the total sown area. By 1939-40, the area under food crops had risen to 197.45 million acres. In the meantime the area under commercial crops went up from 32.72 million to 47.12 million acres or from 15 per cent to 19.3 per cent of the total sown area.

The same trend is discernible in the net value of output of food grains and commercial crops. Between 1896-1905 and 1936-45 the average annual value of output of food grains declined from Rs. 287 crores to Rs. 272 crores but that of commercial crops rose from Rs. 67 crores to Rs. 119 crores.¹² Expressing the same thing in indices with 1896-1905=100, the output of food grains declined from 100 in the base period to 97 in 1936-45 whereas the index of the output of commercial crops rose to 177 and the whole agricultural output to 112.

Even after independence when situation was aggravated by rapid growth of demand for foodgrains, the same trends in supply have continued. Taking 1950 as the base, the index number of agricultural production rose to 141.4 in 1961-62 but this was not evenly spread over all agricultural produce. The increase in the production of non-food grains produce was higher than that in food grains, the two indices being 149.2 and 137.5 respectively. During the same period the area under food grains increased by 1.58 per cent per annum as against 1.84 per cent increase in area under non-food crops. Taking individual crops—wheat, maize and gram—among food grains, and cotton, sugarcane, jute and mesta among non-food grains have shown impressive increases in production. On the other hand, production of bajra, jowar, rice and pulses has lagged behind the average increase under food grains. The area under wheat cultivation increased from 9.8 million hectares in 1949-50 to 13.5 millions in 1961-62 or an increase by 38%. As against that, acreage under bajra increased from 9.3 million acres to 11 million acres or by nearly 18 per cent, jowar from 15.5 to 17.8 or by 15 percent, and rice from 30.5 to 34.2 or by 12 per cent. Among non food grains, oilseeds, sugarcane, cotton and jute have registered spectacular gains in area under cultivation.

The significance of these trends in a study of India's present food problem cannot be over-emphasized. It is clear that unless these trends are reversed and greater importance is given to production of food grains in the agricultural economy of the country we shall not be able to free ourselves from the need for import of food grains to feed the country's population. Unfortunately, very little attention is given to this aspect of the problem in our discussions on the subject.

Why does the farmer show a preference for commercial crops over food-crops? Why, among the food grains, millets and pulses have suffered a neglect as against wheat and rice in the production plans of the farmer? What are the factors responsible for the preferences that the farmer had shown in his choice of crops? How far relative prices of various crops in the market influenced these choices? What has been the effect of heavy annual import of food grains on prices of food grains in the country? Has this import resulted in depressing the prices of food grains thus making domestic produc-

tion of food grains unattractive to the farmer? Which crops have been benefited by the new irrigation made available in the post-independence period? If commercial crops have mostly benefited from irrigation, is a change in our irrigation policy called for? In view of the fact that major portion of land is already under cultivation of food grains, shall we encourage the extension of area under cultivation under food grains at the cost of commercial crops or shall we attempt to secure increase in food production through increase in productivity of land in the existing area? If the consumption pattern in respect of food grains is found to be changing so that people are substituting wheat and rice for millets and maize in their daily consumption of food, is it advisable to reverse the trends that have recently emerged in respect of declining importance of the latter in the crop pattern of the country?

These questions require careful attention and detailed investigation at the hands of planners and agricultural economists. They are not the concern of economic historian. But one important conclusion that emerges from the facts stated above is that market mechanism cannot be relied upon for filling the gap between demand and domestic production of food grains and that an active State policy aimed at encouragement of cultivation of food grains is needed to resolve the present food crisis. To a large extent our present difficulties over food are due to the *laissez faire* policy of the State. This must now give way to active regulation of crop pattern either through price manipulation or fiscal measures or a combination of the two.

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AMALENDU GUHA

Socio-Economic Changes in Agrarian Assam

WITH Calcutta at its centre and with tea and jute as the main levers of change, and of population movements associated therewith, Eastern India presents a comprehensive pattern of an integrated historical process of development since the middle of the last century. An attempt is made in this paper to show the basic character of this process and its impact on a homogenous, agrarian society in the Brahmaputra valley of Assam. The main focus is on the five contiguous districts of Kamrup, Darrang, Nowgong, Sibsagar and Lakhimpur. This area was annexed to British India in 1826 and was known as Assam Proper in the early British Administrative Reports. Until 1951 the Mikir hill tracts constituted parts of the districts of Sibsagar and Nowgong. There has been decade-to-decade variation in the area of Assam Proper during the period under review. But insignificant as it was involving transfer of only thinly-populated forest tracts, this fact may be ignored. In 1961, the area under study, as described above, was 17,719 sq. miles. By 1961 the loss of Mikir hill tracts was somewhat compensated by inclusion of frontier plains tracts on their separation from the North East Frontier Agency.

Assam Proper, while comprising nearly 38 per cent of the present territory of the state of Assam, accounts for as much as 64 per cent of its population, and a far greater share of its total resources. For example, it accounts for 69 per cent of the State's national income, 90 per cent of the State's industrial capital and gross industrial output, 85 per cent of the State's industrial employment and 70 per cent of the State's net cropped area. (Appendix Table 1). This area under study is, therefore, the most developed core of Assam's economy. Yet it has, as will be seen in the following pages, under-

gone a process of distorted development for the last one hundred years.

AT THE THRESHOLD OF THE SEVENTIES

The early period of British rule (1825-70) in Assam Proper was one of administrative and economic consolidation. The population increased from an estimated 7 to 8 lakh in 1826 to 11 lakh in 1853 and then to nearly 15 lakh by 1872. Slavery, involving an estimated five per cent of the population, and the widespread poppy cultivation were suppressed in 1843 and 1860 respectively. But the unrestricted sale of *abkari* opium, introduced in 1851-2, continued to be a menace to the Assamese society as before. Opium sales accounted for almost half the total revenue collection in Assam Proper around 1864-5. In that year, the opium revenue amounted to Rs. 10,83,642 while the land revenue yielded Rs. 10,01,773 only. By 1872-3, the current land revenue demand was revamped to Rs. 21,65,157, but the opium sales also did not lag far behind.¹

With the ascendancy of industrial capital over mercantile interests in Great Britain by 1833, the British policy in Assam received a clear direction towards colonisation. By 1871 more than 3 lakh acres of waste lands had been settled with planters in Assam Proper alone, besides in Cachar and some Bengal districts. These settlements were fee-simple or at nominal rates. At the same time, the burden of land revenue on ordinary farmers was progressively and systematically enhanced in order to encourage their transfer from subsistence farming to plantation jobs. Although not high enough to serve the purpose, the average land revenue of Rs. 1.47 per head of population in Assam Proper in 1872-3 was much heavier than what prevailed in Bengal. The actual burden was much more than what is apparent from the Table below. For the inclusion of the negligible amount of land-revenue paid by the planters the average figure in the case of Assam Proper was largely deflated.

Incidence of Land Revenue Per Head of Population : 1872-73

Assam Proper	Mymensingh	Dacca	Rangpur
Rs. 1.47	Rs. 0.36	Rs. 0.26	Rs. 0.45

Source : *Bengal Administrative Report, 1872-3*, p. 82.

Tea, introduced in 1839, was firmly established as a new crop before the seventies. Assuming an investment of Rs. 600 per planted acre with a gestation period of 4 years, total investment for 31,000 acres in 1871 may be estimated at Rs. 18.6 million or some Rs. 12 per head of the total population

at that time.² In the 12 years between 1859 and 1871, the growth in respect of tea acreage, output and estimated invested capital was as follows:

Assam Proper

	Planted acreage	Output (Lbs.)	Estimated* capital (Rs.)
1859	8000	1.2 million	4.8 million
1871	31000	6.3 million	18.6 million
Increase	23000	5.1 million	13.8 million

*Our estimate.

Source: Memorandum of Campbell in *Papers Relating to Tea Industry in Bengal*, Calcutta, 1873, App. D., p. 121.

Despite a speculative crisis in 1866-7, the subsequent tempo of growth continued unhindered.

Linkage effects were also considerable. Introduced in 1847, the steamer services began to ply up and down the Brahmaputra more regularly from 1861 under a British private company. The outgoing merchandise handled were mainly tea, rubber, gum and silk. Mustard-seeds were mostly transported by boats. The principal imports handled were rice, salt, various planters' stores, piece-goods and indentured labour. The P. W. D. started its road construction programme from the sixties. But the building of railways did not start before 1881.

In 1874, Assam was separated from the Bengal Presidency and was organised as a Chief Commissioner's Province, much to the satisfaction of the local public. The first English School had been established at Gauhati in 1835, at the initiative of Juggoram Khargharia Phukkan (1805-1838), an Assamese Brahmin disciple of Raja Rammohan Roy. In 1872 there were six such English Schools which sent up candidates for the Entrance Examination of the Calcutta University. Of the University's 938 successful matriculates out of 2144 candidates, only four were from Assam Proper as against 11 from Orissa. The performance at the First Arts Examination in the same year was, however, disappointing, and therefore the college classes at Gauhati High School were abolished in 1876. (Assam had a college once more in 1901.)

Nevertheless, an enlightened Assamese intelligentsia, imbued with the spirit of western education had already emerged by the seventies. Anandaram Dhekial Phukan (1829-59)—a product of the Hindu College, Calcutta—led the movement for re-recognition of Assamese as a language distinct from Bengali.

First Arts Examination, December 1872

	Presidency College, Calcutta	Patna College	Cuttack High School	Gauhati High School
No. of candidates	160	23	5	5
Passed	81	11	1	Nil

Source : *Bengal Administrative Report*, 1872, p. 436.

After thirty-five years of suppression since 1836, it was once more recognised in 1871 for use in the schools and law-courts of Assam. The setting up of the first printing press (1836) and the publication of the first Assamese periodical, *Arunodoi* (1846-1883)—both by the American Baptist Mission—helped the dissemination of scientific outlook besides mere Christian propaganda. American Baptists who were on Lincoln's side on the question of slavery had even preceded the British flag in remote hill tracts of Assam. By 1872, Assam Proper had altogether three local newspapers—two published from Sibsagar and one from Gauhati—the same number as Orissa had at the time.

What Assam completely lacked, however, was an aptitude for commerce. Unlike the neighbouring Khasi people, the Assamese were observed to have been very indifferent to trading occupations. Maniram Dewan (1806-1858), the first Indian tea planter whose two tea gardens were confiscated on his martyrdom for alleged conspiracy in the Mutiny, was rather an exception. About a decade thereafter, Rosheswar Barua pioneered a few small gardens, but was ruined by the crisis of 1866-7. In the same crisis, 16 Indian's (not necessarily Assamese) tea gardens were literally nipped in the bud in the adjoining Goalpara district. Out of 20 gardens in existence there in 1867-8, only four gardens reported survival next year; of them two were European-owned.³ Hence, the seventies opened with an unrivalled British monopoly of the expanding plantation sector. Outside this sector, almost the entire internal trade, the procurement of such export goods as rubber, cotton, long-pepper, silk etc., and the distribution of various manufactured consumer goods—was in the hands of the Marwari community, right from the beginning of the British rule. The only exception to this was the trade in oilseeds, still in the hands of indigenous farmer-traders of eastern Kamrup. They were traditionally associated therewith from the medieval times, but were destined to lose their ground to Marwari traders in near future.

THE MECHANISM OF ECONOMIC CHANGES : 1871-1901

The Big Push

Even to assess purely agrarian changes, one has to keep in view the entire mechanism of change. The period under review was a period of hectic investment activities on the part of British imperialism in its drive for exploitation of colonial resources. A set of wasteland settlement rules were accordingly formulated—and then repeatedly revised—to facilitate British capital exports to north-east India. Total area of wastelands settled with planters in Assam Proper increased from slightly more than 3 lakh acres in 1871 to 6.4 lakh acres by 1901 (Appendix Table 2). The total cumulative value of revenue concessions enjoyed by the planters over these lands till 1951, under the terms of settlement, amounted to several crores of rupees, if calculated at the ordinary rate paid by rice farmers.⁴

Tea-processing machineries were increasingly used from the early seventies onwards. The investment per planted acre—calculated at Rs. 600 for an earlier period—may, therefore, be fairly estimated at Rs. 1000, on an average, for the period 1872-1901.⁵ In the decade ending 1881, the acreage under tea leaped up by 63.8 thousand acres (Appendix Table 2). In other words, a sum of Rs. 63.8 million appears to have been newly invested in the plantation sector of Assam Proper in that decade, as against an investment of Rs. 13.8 million in the preceding twelve years. This tempo was maintained for the next two decades as well. Acreage under tea increased from 93,802 acres in 1881 to 204,682 acres in 1901-02. The increase by about 111 thousand acres—118 per cent over the acreage in 1881—represents an estimated investment of Rs. 110.9 million.

The slight fall in the average annual investment was more than compensated by the huge railway investments in these two decades, amounting to Rs. 62.4 million—(total construction outlay on all Indian Railways amounted to Rs. 3295 million as of 1900)—calculated on the basis of construction outlay on 400 miles of tracks in Assam Proper.⁶ However, even as late as 1901, the railways still failed by a few miles to link up Assam Proper with the rest of India. British investments in coal (Rs. 5.4 million approx.), petroleum (Rs. 4.6 million approx.) and saw-mills (Rs. 1 million approx.) were also newly made in these two decades. Some one hundred or so of new telegraph signalling offices and several hundred miles of tele-communications and pebbled roads were built by the Government. So, total investments in the organised economic sector of Assam Proper during the period, 1881-1901, appears to have been around Rs. 200 million, even at a conservative estimate.⁷ This gives us an approximate average investment of some Rs. 10 million or so annually for a population rising from 1.8 million in 1881 to 2.2 million in 1901. This big push—although equal in size presumably to some 15-20 per cent of the region's then national income, did not, however, lead to any

commensurate growth in the indigenous sector of the economy, either simultaneously or in the subsequent decade.

Some Sources of Capital

Surplus: The huge investment was made possible no doubt by migrated British business leadership and capital. But this factor should not be exaggerated. Only a small part of the total investments in tea appears to have been supplied by Britain's home savings. The major part represents the undistributed surplus and ploughed back dividends of the older companies which were already in the field. Published histories of the Assam Company, (1839-1953) and the Jorehaut Tea Company (1859-1946) amply corroborate this view. Between 1854 and 1901, or even later, the Assam Company did not raise any additional capital or long-term loans to augment its initial capital of Rs. 2 million. The latter amount was already paid-up and spent by 1845. Yet the acreage under tea had meanwhile (1854-1901) more than trebled from 3,313 acres to 10,762 acres. An increase of 5,562 acres took place during the period 1872-1901 alone. This involved an estimated new investment of Rs. 5.6 million by the Assam Company, according to our calculations. Even after providing for such a huge expansion in acreage out of the current earnings, the Company made a total profit of Rs. 9 million in these years. The entire profit was distributed as dividends (See Appendix Table 3). Founders of many companies—the second jointstock company in the field, Jorehaut Tea Company, for example—built up their initial capital by fraudulent use of the Assam Company's seeds, tools and man-power in planting their new gardens.⁸ Thus, what apparently inflated the cost accounts of the Assam Company became the initial capital of some new companies. This did not certainly represent fresh import of capital from Britain. Opening of new gardens by British district magistrates, police officers, civil surgeons, military officers etc., after only a few years' service in India also does not represent savings of people in Britain.⁹ These facts induce us to believe that from 1854 onwards, the surplus realised from the plantations as well as Indian revenues was big enough not only for paying handsome dividends, but also for financing the rapid expansion of acreage. Particularly so, because the industry had to pay practically nothing to the government in the form of rent and taxes or as price of the land.

Labour-squeeze: To maximise the surplus, labour was paid a wage below the free market rate. Free market wages recorded, between 1875 and 1899, a 56 percent increase in the Brahmaputra valley.¹⁰ This was because the price of rice was also rising. With 1873 as the base-year, the price of rice in the normal years showed, on the whole, an average upward trend over the period 1871-1901, as is indicated below.

Index No. of Rice Prices (1873 = 100) Select Years

1864	1871	1875	1881	1885	1891	1895	1901
111.2	104.1	125.6	106.8	137.2	136.9	138	184.7

(See Appendix Table 4).

In 1864, while free labour was able to earn a wage of Rs. 7 per month, from the P. W. D., the going wage in the Assam Company's plantations was Rs. 4 to Rs. 5. But the average rate earned in many gardens was Rs. 3.50 only.¹¹ In the face of rising prices, the government attempted to set the norm of minimum wage for contract labour in plantations at Rs. 5, Rs. 4 and Rs. 3 for men, women and children respectively, with the proviso that the planter would make rice available to them at the rate of Re. 1 per md. This was provided by the second Labour Act of 1865. But for decades to come, the planters managed to pay a lower cash wage by manipulating the piece-rate task. They also brought down the real wages by raising the price of rice to Rs. 2, then to Rs. 2.50 and finally to Rs. 4 by 1900.¹² Thus, throughout the period (1871-1901) under review, the contract labourers under the Emigration Act were receiving almost half the wage earned by the free agricultural labourers. The wage-rate of able-bodied agricultural labourers in Lakhimpur, e.g., was Rs. 9.37 per month in 1873. Thereafter, it never decreased below Rs. 6 except in 1875 and 1876. In most of the subsequent years till 1901, their monthly wage-rate ranged between Rs. 8 and Rs. 11. As against this, only in rare cases, could a tea labour theoretically earn a wage as high as Rs. 6.50 (Appendix Table 5). In 1888-9, an Act labourer was receiving in practice only about half the going wage. In the period of falling tea prices in the international market since 1881, the planters maximised their total profit, on the one hand, by expanding acreage and, on the other, by increasing the yield per acre. This was done by lowering the costs through the deepening of capital and the freezing of wages.

Burden on Peasants

The planters brought pressure on the local agricultural population as well. Armed with suitable law, they had already enclosed by 1901 some one-fourth or so of the total settled area (or 5 percent of total geographic area) in Assam Proper, under their proprietary rights.¹³ Thereby they had, to a certain degree, limited the facilities of fluctuating or shifting cultivation as well as of grazing and collecting activities of the local population—particularly the tribals. Actual acreage under tea represented 8 to 10 per cent of the occupied

plantation area in the early seventies, rising to only 29 per cent even as late as 1947. Why then did the tea gardens enclose excess lands or why did the government allow them to do so? Such a policy, like one of enhancing land-revenue on peasant holdings, obviously aimed at forcing the local farmers into acceptance of plantation employment. This had partial results. For, in 1868-9, there were as many as 18,783 local labourers, on a monthly average, as against 21,667 imported labourers on the plantations.¹⁴ But, thereafter, when thousands of additional hands were required every year, local labour supply failed to respond. This happened despite a 100 per cent increase in the total land-revenue demand on Assam Proper within 3 to 4 years by 1872-3. In 1893, the land revenue rates on peasant holdings were once more revamped. Even in the face of a mass upsurge of protesting peasants in Kamrup and Darrang which was suppressed by police firings, an average increase of 53 per cent in the land revenue was implemented in the Brahmaputra valley.¹⁵ But all these measures failed to attract Assamese labour in increasing numbers to wage-employment. Of the 307 thousand labour force on the plantations of Assam Proper in 1901, only some 20,000 were reported to be local labourers. Of them, 14,000 were Bodo-Kachari tribals of the plains.¹⁶ The situation was not different in the remaining part of the organised sector.

The planters and their government, therefore, had to depend almost entirely on the famine-stricken tribal areas in the rest of India, for a steady labour-supply. Between 1871 and 1901, more than 11 lakh recruits, men, women and children, entered Assam—bulk of them, Assam Proper. Annual wastage of labour force through mortality and desertion was 6 per cent around 1900, and presumably much more in earlier years.¹⁷ A considerable number were repatriated every year on expiry of their contract period, but many also settled down permanently in the tea districts, either voluntarily or under duress. Throughout the period from 1865 to 1908, the planters exercised the right of private arrest without warrant. Keeping wages in arrears occasionally for as long as six months appears to have been a common practice.¹⁸

Source of Railway Investments

Quite a considerable part of the capital invested in the railways also did not originate in U. K. For, under the Guarantee System, much of the capital outlay was financed by government subsidy or loss on government revenue account. For example, the Government of India incurred a total loss of Rs. 35.9 million towards supporting the Assam-Bengal Railways during the period from 1895 to 1917-8, i. e. an average loss of nearly Rs. 3 million annually. Similarly, a total subsidy of Rs. 1.2 million was paid by the Assam Government to the Dibru-Sadiya Railways over the period 1884-1903. Jorhat State Railways was a project of the Government of Assam "for the

convenience of numerous tea gardens in the neighbourhood of Jorhat", involving public investment of nearly Rs. 1 million and an accumulated loss of Rs. 5 lakh upto 1901. Even Local Government funds were utilised for the railway construction. For example, in the case of Tezpur-Balipara Light Railways, while tea gardens subscribed to 45 per cent of its paid-up capital of Rs. 4 lakh, the government supplied timber free of royalty, and the Local Board of Tezpur paid a total subsidy of Rs. 1 lakh in 20 annual instalments.¹⁹

From these facts, it appears that the role of public funds, realised from increased taxation, was not inconsiderable in railway-building in Assam. Between 1850 and 1900 the Indian Government had to pay to the Railway Companies, under the guarantee system, a total sum of £ 50 million. But the plantation-oriented alignment of the railroads, through thinly populated submontane tracts, did not benefit the farmers as much as they should have done in ordinary circumstances. Despite the hectic development activities since the seventies, Assam Proper had in 1901 only four townships with a population above 5000 and none above 12,000. In two of them—Gauhati and Barpeta—the population had actually declined since 1881; the former's, from 11,695 to 11,661 and the latter's, from 13,758 to 11,227. Thus, even the erstwhile centres of commerce were hardly helped by the forces of development in the field.

Impact of Immigration

Already long before 1871, Assam Proper had become a deficit area in food grains. The annual rice import was estimated at no less than 3 lakh mds. in 1873. By the early eighties the rice import from Bengal into the Brahmaputra valley increased to 4 to 5 lakh mds. per year.²⁰ An increasing inflow of labour recruits into the plantations aggravated the situation. This is evident from the rising prices of rice as against the falling prices of tea and salt (Appendix Table 4). As shown above, the imported labour of tea industry was tied down to stationary—or even falling real—wages while food prices and wages outside the plantations were rising. On expiry of contract, the labourers therefore, preferred to settle down on wastelands as independent peasants. Many even escaped their contracts to find refuge in Assamese villages as agricultural labour. Thus the competition of rice and tea for the scarce human labour—although greatly checked by law of contract and labour recruitment—was nevertheless a force at play. That is why continued and heavy recruitment drives abroad became a permanent feature with the tea industry.

Until the beginning of a still bigger population movement from East Bengal to Assam in this century, tea remained the biggest factor responsible for immigration. Large scale labour recruitment from outside had started

from the early sixties. In 1872, imported labour on tea gardens, alone, was estimated at 40,000; and the total number of non-indigenous people including them, at some 80,000 or so in a total population of 14.96 lakh. By 1881, the non-indigenous element appears to have increased to about 3 lakh in a population of 18.05 lakh.²¹ Similar estimates have been made for 1891 and 1901 in the Census Report of 1901, on the basis of a list of indigenous castes and tribes. These estimates, as given below, fairly reflect the increasing shares of non-indigenous elements in the population, since Muslims and Christians together formed a negligible fraction (6 per cent or so) thereof.

Composition of Population: Assam Proper

	1891	(%)	1901	(%)
Total Population	2,023,708	(100)	2,157,025	(100)
Indigenous Hindu Castes & Tribals	1,584,027	(78.3)	1,504,847	(67.8)
The Rest	439,681	(21.7)	652,178	(32.2)

Source: *Assam Census Report*, 1901, pp. 29-30.

Thus, the non-indigenous population appears to have increased from less than 1 lakh in 1872 to anything between 5 and 6 lakh in 1901. But on the other hand, the indigenous Assamese population which was growing fast during the years 1872-81, remained almost stationary for the next 20 years. In fact, it decreased 6 per cent between 1891 and 1901, because of the black fever (*Kalazar*) epidemic.

This epidemic first appeared in Goalpara in 1883, entered Kamrup in 1888 and thereafter spread to other areas. The Great Earthquake of 1897 also took a large toll of human lives, besides permanently turning some cultivated fields into wastelands. During the decade 1881-91, the population of Goalpara sub-division decreased by 18 per cent and that of Kamrup district 1.6 per cent. During the next decade, the population of Kamrup decreased by 7.1 per cent, that of Mangaldoi sub-division of Darrang by 9 per cent and that of Nowgong district by 24.8 per cent. It was the indigenous section of the population, particularly the tribals, who were most hard-hit. As a result, despite an over-all increase in the population of Darrang due to immigration, the indigenous component of it is believed to have decreased by 8 per cent between 1891 and 1901. The tea districts of Lakhimpur and Sibsagar were, however, least affected, much to the relief of the planters. Population of Lakhimpur increased by 46.1 per cent during the decade—16 per cent through natural

growth and 30 percent through immigration. Population of Sibsagar increased by 24.4 percent which was due in equal proportion to natural growth and immigration.²²

Immigration from outside the province to the tea areas apart, there was also some migration of indigenous tribal population from Kamrup and Mangaldoi to Upper Assam. Thus, the pull of the plantation sector, coupled with other factors, brought two big demographic changes during the three decades ending 1901—(i) a change in the ethnic composition of the population, and (ii) a change in the spatial distribution of population over the districts. The proportion of indigenous Hindu castes and tribes in the total population came down from anything between 95 to 99 percent in the pre-Annexation days to 78.3 percent in 1891, and then to 67.8 percent in 1901. Thus, non-indigenous elements constituted one-quarter to one-third of the population of Assam Proper in 1901. In that year, as well as in 1921, more than two-fifth of the population of Lakhimpur district were enumerated to have been born outside the province. At the same time, only 39 percent of Lakhimpur's total population in 1901 returned Assamese as their mother-tongue. People born outside the province constituted a quarter of the population of Darrang and Sibsagar in 1901.²³ The change in spatial distribution can be best seen in the density table. (App. Table 6). Until 1901, the density increased rapidly only in tea areas. But thereafter, and particularly from 1921, other factors contributed more towards density.

The demographic changes noted above were economically significant in more than one respect. Rapid increase in the number of immigrants as against a stagnated indigenous population, almost all of whom were engaged in subsistence farming, could mean only two things. First, a continued imbalance between the fast growth of the modern sector comprised of plantations, coal, petroleum and the associated infra-structure on the one hand and the slovenly growth, if any, of the traditional agricultural sector on the other. During the period under review (i.e. 1881-1901), the overall population increase outstripped the increase in gross acreage under ordinary crops. (Appendix Table 7). The increased demand for rice, bamboo etc. enhanced the farmers' cash incomes, no doubt. But they could not make best use of the situation because of acute labour shortage within the sector.

Secondly, the gap between the gross earnings of the economy and the locally-disbursed income originating therefrom increasingly widened. Not only that the surplus was remitted abroad in the form of high dividends and transferred savings from high salaries, but also a substantial part of the wages was remitted outside the geographic area. Such remittances by migrant workers were mostly carried on their persons at the time of return to their places of origin. "Income-remitting" people of small means also availed of the growing postal facilities, as is suggested by the available figures for the

whole province of Assam :

Selected year	Money orders issued within Assam (No.)	Money orders issued within Assam (Value)	Money orders paid in Assam (No.)	Money orders paid in Assam (Value)	Net out-flow of Money orders (Value)
		Rs.		Rs.	Rs.
1880-81	43,680	134,613	11,738	45,800	88,813
1885-86	144,003	349,581	52,089	141,459	208,122
1897-98	394,577	926,704	124,413	405,581	521,123
1904-05	532,174	9787,328	204,010	4982,697	4804,631

Source : Worked out from data in *Financial and Commercial Statistics of British India*, 6th Issue, 1899, pp. 290-6 ; *ibid.*, 13th Issue, 1907, pp. 258, 264.

Thus the net remittance to outside the province by money orders increased from less than Rs. 90 thousand in 1880-81 to more than Rs. 5.2 lakh annually in 1897-8 and, thereafter, to nearly Rs. 5 million by 1904-5. And bulk of this was presumably from Assam Proper and without equivalent returns.

Even that portion of surplus retained within the industries for self-financed horizontal expansion was mostly spent on imported capital goods and services. Demand for trading, clerical, skilled and even unskilled services invited further migration of suitable personnel, belonging to non-indigenous ethnic groups, such as the Marwari traders and the Bengali professionals who had dependants at home to support. The variety of consumption-goods required by these incoming people—wheat-flour, edible oil, *ghee*, refined sugar, shoes and piece-goods—could not be readily produced locally because the small domestic market was not large enough to produce them profitably either with traditional or imported technique. Hence, the spill-over process of this colonial pattern of development was extremely limited. This problem was aggravated also by a deliberate policy, as is stated by the official historian of the Assam Company.

It was the Company's normal policy to purchase the bulk of the gardens' requirement of stores in the United Kingdom and ship them to India.

—H. A. Antrobus, *A. History of the Assam Company 1839-1953*, Edinburgh, 1957, p. 240.

To sum up, the gross export earnings of the economy were far in excess of the import bill. This was so because the process involved a unilateral transfer—over and above due payments for invisible imports—of the surplus realised by migrated enterprises. For example, in the two years 1880-81 and 1881-82, total recorded export earnings of the whole province of Assam amounted to £7264 thousand, as against total imports valued £3700 thousand. The average annual size of the trade surplus was therefore £1782 thousand. Exports, imports and the trade gap—all went on increasing, while the share of tea in the total export earnings remained steady around 70 per cent till 1901.²⁴ Imports mainly consisted of various wage-goods such as mill-made cloth, salt, food-grains, sugar and tobacco. Besides, there was increasing import of machineries and other inventories.

Thus, during the period, 1871-1901, the economy of Assam Proper had developed all the characteristics of a dual economy, with a cleavage between the traditional subsistence sector and a capital-intensive, highly monetized modern sector. The main cash crop of the peasant sector was mustard-seeds. It accounted at the most for 7 to 8 percent of the total export earnings in 1880-81, but this share, along with the output in absolute terms, fluctuated heavily for succeeding years as is indicated below:

Export of Mustard-Seeds from the Brahmaputra Valley
(In lakh mds.)

1880-1	1881-2	1882-3	1891-2	Average of three years ending 1901-2
8.55	6.89	4.63	12.75	4.50

Source: *Assam Administrative Report, 1882-83*, p. vii; *An Account of the Province of Assam*, Shillong, 1903, p. 34.

Mustard exports declined heavily particularly since the earthquake of 1897. Increased cash sale of rice to tea gardens somewhat compensated the peasants. But the diffused increments in their cash incomes, cut to size by increased land revenue demand, could hardly encourage any capital formation on the farms. Doubly handicapped with shortage of labour as well as of capital, what the traditional sector could do was to grow more rice by diverting family labour from the cultivation of other crops and from certain handicrafts to rice fields. Even so, and despite some additional rice production by ex-plantation labour, rice acreage and output did not increase in tune with demand as will be shown in a subsequent section of this paper. As a result, the price of rice was abnormally high while that of tea was low in the nineties. The price index (1873=100: rice, 13.6 seers per rupee and tea, Rs. 1-2 as. per lb.) was as follows:

	1891	1893	1895	1897	1899	1901
Rice	136.9	174.8	138.0	225.2	127.6	184.7
Tea (Indian Pekoe)	65	62	71	54	52	51

Source : (See Appendix Table 4 for source).

The *Bengalee* (Calcutta), dated 17 October 1896, published a news item which may be reproduced here to sum up this agrarian situation:

....there was a grain riot here yesterday. Mr. Thonhil, Magistrate, called out the troops.

....The sympathies of everyone are with the rioters as the Bunnias buy the grain at 16 seers the rupee and sell it at 6. Last month it is stated that ninety dead bodies were picked up in Nowgong. It almost looks as though famine had begun.

The earthquake of June 1897 further worsened the situation for the next few years. Thus the 19th century closed with a maturing agrarian crisis. There was retardation in farm production on the one hand and over-production of tea, on the other. The planters had already founded the Indian Tea Association (ITA), the organ of their monopoly, as early as 1885. Through this, they introduced fine plucking as a measure of crop-restriction for the first time in 1901. At their instance, the Indian Tea Cess Act was passed next year providing for a levy of one-fourth of a pie on every lb. of exported tea for the cause of export promotion. Henceforward, the growing influence of the ITA was felt in every sphere of the economic and political life in Assam, which persists even after independence.

THE MECHANISM OF ECONOMIC CHANGES: 1901-51

The turning point

The decade of 1901-11 provided a turning point in the pattern and mechanism of economic change by ushering in a second and new phase thereof. The growth in tea acreage remarkably slowed down over the decade and thereafter. It was only 8.2 percent (18,528 acres) over the decade, representing an estimated new investment of Rs. 18.5 million. But the railway investments, over the same period, were as high as Rs. 28 million for an additional 166 miles of tracks in Assam Proper. Rs. 33.1 million were spent for 85 miles of tracks in Goalpara and 188 miles in other parts of the province. Thus by 1911, railway through-transport became possible between Assam Proper and the rest of India along two routes.²⁵ By now Gauhati

and Tinsukia were destined to become the leading commercial towns of Assam.

All these brought forward a qualitative change in the situation in two ways. First, the land-hungry low-land peasants of East Bengal could now come by thousands to colonise the riverine wastelands, on which tea or wet rice could have never thrived. Second, the usury and trading capital, which had accumulated over the past decades into the hands of the Marwari Banias, could now be more productively used and speedily turned-over due to increased commodity circulation. So long, this community's business was limited to collecting forest produce and the meagre farm surplus for the market against the supply of imported manufactures. They also extended short-term finance to the garden managers against *hundis* on Calcutta and maintained shops in the gardens. From now onwards, they began also to finance increasingly jute in addition to other cash crops, and to start mills for their processing. Better communications and the emergence of jute as a productive channel of rural finance were the two significant factors which, within years, uplifted the agrarian economy through expanded commerce. For the first time the cultivation of jute became important in Assam Proper, increasing from less than 500 acres before 1901 to over 6000 acres by 1911. (In 1901-2, Goalpara had 25.6 thousand acres under jute, which slowly increased to 26.6 thousand acres by 1911.) Meanwhile, the acreage under rice also recorded a 27 percent increase over the decade as against 5 percent in the case of tea. The share of tea in the gross cropped area decreased from 11.4% to 9.4%, while its share in the total export earnings of the province as a whole, increased from 70 percent to 75 percent.²⁶ Henceforward, jute and the associated cultivation of paddy by the immigrant jute-growers, were to play an increasingly important role in the agrarian developments to follow. The East Bengal colonists formed one-fifth of the population of Goalpara by 1911, and thence began to move into Assam Proper.

The new phase²⁷

In his Assam Census Report of 1891, Gait had noted the absence of any immigration from adjoining East Bengal. But a change came with the turn of the century. The birth-place table of 1911 Census shows that Mymensingh, Jalpaiguri and Rangpur districts of Bengal provided 51,000 immigrants to Goalpara and 3,000 to Assam Proper. Thereafter, East Bengal colonists were settling by thousands, and with families. An estimated 85 per cent of them were Muslim and only 15 percent Hindu. By 1921, 141 thousand had settled in Goalpara and 117 thousand in Assam Proper. In the latter case, the district-wise break-down is as follows:

Kamrup 42000	Darrang 15000	Nowgong 55000	Sibsagar 2000	Lakhimpur 2000
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There were three streams of immigration which went on for decades—that (i) of tea-garden coolies recruited from the tribes of other provinces, (ii) of Nepali graziers, and (iii) of East Bengal colonists. About 12 lakh tea garden coolies were brought into Assam—majority of them for Assam Proper—between 1911 and 1931. Despite repatriation and exodus on a big scale, a considerable number presumably stayed back. Between 1931 and 1950, another 7 lakh labourers were imported into the province of Assam, as against repatriates numbering 2.9 lakh during the same period. The number of Nepal-born persons in Assam increased from 21,000 in 1901 to 88,000 in 1931. Together with second-generation Nepalis and those born in Darjeeling district, the number was presumably much more. In Assam Proper, the Nepali-speaking population numbered nearly 75,000 in 1951, while quite a considerable number had by then adopted the Assamese language. The third and most important immigration was that from East Bengal.

The total number of East Bengal settlers together with their children in the Brahmaputra valley was estimated at 3 lakh by Lloyd in 1921. Almost all of them had come after 1901. In 1931, Mullan placed their number to be over half a million, of whom about 2 lakh were in Goalpara. He commented:

Without fuss, without tumult, without undue trouble to the district revenue staffs, a population which must amount to over half a million has transplanted itself from Bengal to the Assam valley during the last twentyfive years. It looks like a marvel of administrative organisation on the part of Government but it is nothing of the sort; the only thing I can compare it to is the mass movement of a large body of ants.

—(*Assam Census Report, 1931*, p. 51)

In 1951, 530 thousand Pakistan-born persons, obviously from East Bengal, were enumerated in Assam Proper, as can be seen from the following table.

Number of Pakistan-born People, 1951
(In thousands)

	Total	Non-Refugee	Refugee
Assam Proper	530	409	121
Goalpara	136	91	45
Cachar	130	37	93
	<hr/> 796	<hr/> 537	<hr/> 259

(Abridged).

Source: *Assam Census Report, 1951*, p. 74.

The settlers of East Bengal origin, inclusive of children born in India, are apparently much more numerous than what the above table suggests.

However, the assimilation of non-indigenous elements into the Assamese society was also going on for decades. By 1951, large sections of settlers, particularly the East Bengal Muslims, had adopted the Assamese language or at least declared so before the census enumerators. Consequently, the speakers of non-indigenous languages in Assam Proper numbered only 12.1 lakhs or 22 percent of the population in 1951.²⁸ Thus the danger of local population being outstripped by settlers—in 1901 non-indigenous elements, as we have seen, estimatedly constituted slightly more than 32 percent of the non-Muslim population—appears to have passed off. Nevertheless, the great population movements have left permanent imprints on the social composition as well as the economic life of the people. For example, in 1872 and in 1901 the Muslim population constituted less than 6 percent, but in 1951 more than 19 percent of the total population in Assam Proper. The share of jute in cropped acreage also simultaneously moved upward. The proportion of Muslims in the population of Nowgong, e.g., increased from around a static 4 percent during the whole period from 1871 to 1901 to 40 percent by 1951. This has also meant a sharp increase in the acreage under jute in Nowgong district from 879 acres in 1911-12 to 21,323 acres in 1920-21. Thereafter it leaped up to 109,000 acres (i.e. 12 per cent or so of the district's total acreage) by 1961. Nowgong's share of total jute acreage in Assam Proper increased thereby from less than 10 percent in 1911-12 to 43.5 percent in 1920-21 and to 47.4 percent in 1960-61 (Appendix Table 8).

The impact of this incessant influx of population on extension of agriculture can be gauged from land settlement figures and other available sources. In 1940-41, about 384,000 acres of land were found settled with ex-tea garden coolies alone in Assam Proper; they held another 26,635 acres as sub-tenants.²⁹ Acreage newly settled with immigrants other than ex-tea garden labour increased from decade to decade as follows:

Acreage (in thousands)

	1930-31	1940-41	1949-50
Brahmaputra Valley (Sadiya Balipara Tract included)	487	702	1360
Cachar	14	13	28

Source : *Assam Census Report, 1951*, p. 56.

(An additive mistake in the source has been avoided.)

So, within a period of three or four decades upto 1950, altogether 1.4 million acres or one-fifth of the total settled area of the Brahmaputra valley had been settled with immigrants other than ex-tea garden labour. Incidentally, it may be pointed out that the total settled area itself in the early eighties was almost of the same magnitude. The results of expansion of settlement on such a big scale were aptly described by a magistrate in the following words:

Government revenue has increased. Trade and commerce have prospered. The lakhs of rupees which annually pour into the district to buy their jute pass out from their pockets into those of the traders who sell them their foodstuffs and imported goods as well as into those of the lawyers and mahajans who look after their litigation and finance.

(Quoted in *Assam Census Report, 1931*, p. 51)

How these developments were reflected in the cropping pattern and techniques of production is going to be discussed in the next section. But some basic changes may be noted here. The share of tea in the gross cropped area decreased from its highest-ever peak of 11.4 percent in 1900-01 to 6.8 percent in 1950-51 and that of fibres rose from less than 0.3 percent to 4.2 percent while the share of rice recorded a marginal fall from 65.8 percent to 62.7 percent (Appendix Tables 9 and 9a). During the first half of the 20th century, the rate of growth of gross acreage under crops other than tea out-stripped that of tea acreage ; the former increased 161 percent, the latter 48 percent. It kept pace with the fast increase in population. In fact, it was ahead of population growth until the influx of population in 1951. This is indicated in Table 7a. Thus there was a fundamental shift in the pattern of agrarian growth. As against a 92 percent increase in tea acreage, there was only a 13 percent increase in the acreage under other crops in the 16 years ending 1901, the increase in the rice acreage alone being 16 percent. But the increase in rice acreage during the next 50 years was 136 percent, i.e., an average 27.2 percent per decade. (Appendix Table 7 and 7a).

LAND USE AND CROPPING PATTERN

Land Use

Early statistical data regarding the extent of forests and fallows are least meaningful because of their partial coverage and frequent change in their definition. A clear distinction between cultivable wastes and uncultivated land not available for cultivation is completely lacking. In a later period, it appears that the state government was not prepared to show the extent of cultivable wastes as such, as a matter of expediency in the face of influx of refugee population into the state.

Land Use Pattern, 1957-8 : Assam Proper

	Acreage	Percentage of total
Total surveyed and reported area	11,358,720	(100)
Net sown area	3,768,843	(33.18)
Current fallows	268,856	(2.37)
Fallow other than current fallow	352,840	(3.11)
Land put to non-agricultural use	1,442,960	(12.70)
Barren and uncultivated land	670,910	(5.91)
Forests	3,608,715	(31.77)
Other miscellaneous lands	639,909	(5.64)
Cultivable wastes	(not reported)	(presumably 5.33)

Source : Processed from *The Statistical Abstract of Assam, 1960-61*, p. 73.

But this can be somewhat guessed from the above land use table itself. In 1957-8, net cropped area represented 33.18 percent, current fallows 2.37 percent, other fallows 3.11 percent and forests 31.77 percent of the total surveyed and reported area.

During the period under study, the coverage of surveys also did not remain uniform because of two factors : (i) the surveyed area in early years did not include land under certain categories of tenure, and the gaps were filled up step by step ; (ii) the reported area lagged behind the surveyed area initially until they became almost identical by 1901. Taking 1900-01 as the base-year, the variations in the total reported area from year to year may be indexed as follows :

1884-5	1893-4	1900-01	1920-1	1930-1	1940-1	1950-1	1957-8
84.2	84.8	100	103.9	102.7	102.0	100.2	90.8

(Worked out from : Appendix Table 10.)

This lack of identity between the surveyed and reported areas has to be kept in mind while taking note of the changes in the land utilisation pattern. In the absence of accurate and meaningful data on other categories, we shall have to remain satisfied only by noting the progress in the net cropped area.

In 1849-50 and 1852-53, the total cultivated acreage, possibly including current fallows for which land revenue was paid, was reported to be 1,077,554 acres and 1,079,331 acres, respectively, for Assam Proper. The net cropped area in 1884-85 was 1,367,233 acres (Appendix Table 10). Even allowing for shortcomings of coverage in reporting and taking into consideration current fallows, the increase does not appear to be impressive. The per capita cultivation had, in fact, decreased meanwhile. This relative stagnation led to the increasing trend in the price of rice during the years (Appendix Table 4).

In 1884-85, the net cropped area represented 12.98 percent of the reported area. Thereafter, because of increase in cultivation, this percentage steadily increased to 16.88 by 1892-93. In that year the net cropped area reached its 19th-century peak, 1,758,064 acres. But this figure mistakenly included the acreage planted with *sal* forests in one district, and the reported area also was unusually low. The actual figure and its percentage share in the reported area would, therefore, be somewhat less than what they appear to be. We may put it at 15 to 16 percent.

Net cropped acreage gradually decreased thereafter to 1,667,375 acres by 1900-01. Then it represented only 13.3 percent of that year's reported area, which was almost the same as the actual area. Apparently, between 1885 and 1901, there was a nominal increase of about 22 percent in net cropped acreage. But, the real increase must have been less as the reported area during the same period also had increased by nearly 2 million acres, i.e. about 19 percent. It is most likely that a substantial part of the increase in acreage was not due to actual expansion of agriculture, but due to fresh coverage of hitherto unrecorded cropped areas (See Appendix Table 10). In any case, as against the 19.4 percent population increase over the period 1881-1901, the per capita acreage of net cropped area appears to have remained almost stagnant, if it had not actually fallen.

The share of net cropped area in the total area increased from 13.3 percent in 1900-01 (reported area by this time became almost identical with the surveyed area) to 33.2 percent by 1957-58 (see above). Thus, its percentage share of total area almost trebled in five decades.

In the first half of the 20th century then, the net cropped area increased by 138 percent and gross cropped area other than under tea by 161 percent as against a population increase of nearly 159 percent (Appendix Table 7a). It is this population increase which helped the expansion of acreage. We have already explained the forces behind this, in an earlier section.

Cropping Pattern

We shall now turn our attention to the breakdown of the gross cropped area for select years to find out if any pattern of change emerges therefrom.

During the period 1871-1901, the share of tea in gross-cropped area was increasing rapidly, while that of foodgrains—almost entirely rice—remained more or less steady. Traditional cash crops such as sugarcane and mustard were on the decline. Particularly, the acreage under mustard was very much affected by the earthquake of 1897. The decline in the share of sugarcane cultivation continued for the next four decades, but improved by 1951. From 1901 onwards, sugarcane acreage in the tea districts of Lakhimpur, Sibsagar and Darrang increased due to Nepali immigrants, while indigenous Assamese peasants were gradually abandoning its cultivation all over the valley. It happened so because the latter could not produce as cheaply as the emigrant Nepalis who had adopted *jhuming* on jungle lands. The share of mustard in gross-cropped area almost steadily declined until 1951. As to fibres, their share was negligible until 1910-11. During the period 1871-1911, jute had no importance in the local economy; and cotton—once important in medieval times—quietly went out of the picture in the plains. Similarly, black-pepper—another important export commodity of pre-British Assam—went out of cultivation. Sericulture and lac culture, however, staggered on.

Cropping Pattern in Select Years (Percentage share of total area)

	Food-grains	Sugar-cane	Fibre	Oil seeds	Tea	Miscellaneous
1884-85	70.4	1.2	0.05	9.1	7.0	12.2
1894-95	71.0	1.0	0.13	7.1	8.3	12.4
1900-01	69.3	1.0	0.21	6.4	11.4	11.6
1910-11	70.4	0.8	0.60	8.8	9.4	10.0
1920-21	68.6	0.8	2.02	7.7	9.7	11.1
1230-31	68.2	0.5	3.44	6.6	9.0	12.3
1940-41	69.3	0.7	4.87	7.4	7.3	12.4
1950-51	66.8	1.0	4.18	5.5	6.8	15.7

Source : Appendix : Table 9 and 9a.

By 1920-21, the share of fibres—by now almost entirely jute—increased to 2.02 percent of the gross cropped area, and by 1950-51 leaped up to 4.18 percent. (By 1957-8, its share increased to 5.10 percent.) During the the same period the share of oilseeds declined from 7.7 per cent to 5.5 per cent and that of tea from 9.7 percent to 6.8 percent. The *modus operandi* of this change has been discussed in an earlier section. We may now proceed to discuss the change in techniques of production and trends in output.

CHANGES IN TECHNIQUES OF PRODUCTION AND OUTPUT

Changes in Technique of Production

While an alround agro-industrial revolution was going on in the plantation sector, its impact was least felt in the traditional agriculture. But, nevertheless, even this traditional sector was undergoing slow changes of a different nature.

The first important change was in the crops grown. Cotton and black-pepper gradually disappeared. Such indigenous fibres like *rheea* (*Boehemeria Nivea* or Assam nettle) and *mesta* also became insignificant against the emergence of jute, particularly from 1901-11 onwards. Potato, introduced during 1825-40, rapidly gained its place as the most important vegetable on the farms. These changes in crop pattern are in no way related to the impact of tea. Similar changes had taken place also in the late medieval times, when local peasants had rapidly adapted themselves to such new crops as maize, tobacco, chillies and poppy.

The second important change was the rapid shrinkage of shifting cultivation which used to be formerly practised on a large-scale in the plains, in two forms. First, tribal peasants carried on shifting cultivation—jhumming—with hoes. Second, Assamese peasants carried on plough cultivation of *ahu* rice, pulses and mustard on virgin plots continuously for three years and then fallowed them for several years. This was known as fluctuating cultivation. Both these forms of shifting cultivation were on the decline due to influx of population, particularly from 1901 onwards. The tribal peasants, who were observed by Dalton (1872) and others, as using hoes, gradually changed for the plough through an interesting process of *sanskritisation*. Fluctuating plough cultivation, mentioned by Butler (1847), and Baden-Powell (1895) gave way to settled cultivation of the immigrants.³⁰ During the years 1911-30, settled cultivation increased 700 percent in the sub-division of Barpeta (in Kamrup) alone.³¹

The third mentionable change was a slight extension of the practice of double-cropping. Index of more-than-once-cropped area steadily increased from 100 in 1884-85 to 130 by 1893-94, but thereafter began to decline heavily until it reached 90 in 1900-01. This was because of the effects of the Kalazar epidemic and the earthquake of 1897. The technique of multiple-cropping—more strictly speaking double-cropping—increased thereafter, as is shown by the following set of index numbers:

1900-01	1910-11	1920-21	1930-31	1940-41	1950-51
(Base year) = 100	174	214	216	377	370

Source: Appendix: Table 7 and 7a.

However, the share of area cropped more than once in the net cropped area first decreased from 10.3 percent in 1884-5 to 7.6 percent in 1900-01. Thereafter, it steadily increased to 9.4 percent by 1920-21 and to only 11.8 percent by 1950-51 (Appendix Table 11). Thus, the tempo of change in this respect is insignificant over the long period ending 1951.

Finally, a change in the mode of jute cultivation may be noted. So long as jute was cultivated by the indigenous people on high grounds near the homestead, as noted by Robinson (1841), it did not respond to the market and remained a marginal crop for home use.³² The immigrants showed that the riverine wastelands (*char*) were most suitable for jute cultivation. This made all the changes which revolutionised the countryside within decades, beginning with 1911. This cultivation is still dominated by Muslim and—to a smaller extent—Hindu refugee peasants of East Bengal origin, with very little of transmission of technique to others. Here, we may also refer to another imported agricultural technique—that of growing betel-vines intensively on shaded, manured plots. The indigenous method of growing betel-vines is to grow them as climbers on areca-nut trees. The former method is more productive and is profitably practised by farmers of *Barujibi* caste. They are immigrants from East Bengal into Assam, particularly after 1947. But the diffusion of this technique amongst local farmers has not yet been observed.

The technique of wet rice cultivation in Assam plains represents the accumulated experience of ages and as such offers very little scope of further development within the limits of available private means. Female participation in sowing, transplanting and harvesting operations is almost universal. Even the womenfolk of the Brahmin caste participate in such operations in most parts. The process of *sanskritisation* could not affect this practice, in the face of acute labour shortage until recently. If the Assamese peasants have not in the recent years responded to improved ploughs, pesticides and seeds, the reasons are to be sought more in bad demonstration and local unsuitability than in conservatism.

Changes in Processing of Agricultural Commodities

Many of the tribals on the plains in Assam Proper and Goalpara did not grow mustard for their oil, but merely for eating like parched peas. The oil-seeds were fried and were relished in that state. It appears that the habit of oil consumption slowly developed amongst these people from around the seventies or so. Mustard-oil was only edible oil for the remaining population, but the art of oil-pressing was not well-developed. In the absence of a specialised oilmen's caste, oil used to be manually pressed by the farmers themselves with the help of a short beam loaded with a heavy stone. Only in Kamrup, there were some professional oilmen, though not on caste basis. These conditions continued up to the end of the last century and even there-

after. The *Assam Administrative Report* for the year 1882-83 states that the manufacture of mustard oil in bullock-drawn *ghanis* was a 'recent' introduction. In that year, the local manufacture was almost entirely consumed by the immigrant population. The Report noted that the domestic press was being gradually supplanted by the bullock-drawn *ghanis*. There were already 500 such *ghanis* in Kamrup, 150 in Nowgong and 51—as against 36 in 1881—in Dibrugarh.

This shortcoming in oil production led to a peculiar situation. During the last thirty years of the 19th century, anything between 4.2 to 12.7 lakh mds. of mustard were being annually exported from the Brahmaputra valley, while mustard oil had to be imported. At the end of the century the annual import of mustard oil was estimated at 23,000 mds. By 1907-8, 4 modern mustard oil mills in Kamrup, 3 in Lakhimpur and a few in Nowgong were started mostly with Marwari capital. Only one of these was an Assamese concern.³³ Despite further progress in this industry in course of subsequent decades, not only that the area remains deficit in mustard-oil but is also importing mustard seeds in recent years. The declining share of mustard in the cropping pattern has already been noted. The tea gardens became interested in the purchase of oil-cakes as manure from around 1900, when their cheap transport by the railways became a feasibility. But the dearth of oil-cakes, under the circumstances, led them to start small oil-mills in their own gardens for producing oil-cakes, while the oil was sold as a bye-product.³⁴ This continued until better manures were available.

Sugarcane Crushing

The most common indigenous sugar mill was a *Kolhu* type—a mortar and pestle arrangement—in which cane was bruised and pressed.

The Behea iron mill was introduced in India in 1873-74. The first manufactured mill was a two-roller one, costing from Rs. 80 to Rs. 100. The three-roller Behea mill—more expensive and improved—was in the market from 1886. Messrs Thomson and Myline established depots throughout the country, where worn-out mills could be replaced by new ones.³⁵ Attempts to introduce iron mills in Assam Proper started in 1883. Several experiments were carried on to demonstrate the superiority of the iron mill over the indigenous mill. Messrs Thomson and Myline sent a demonstrator from Shahabad to Golaghat in 1884 to teach the local ryots the use of the Behea iron evaporating-pan, to replace the earthen cauldron in use. The existence of a distillery in the vicinity had stimulated sugarcane cultivation in Golaghat. By 1907, Nepali emigrant cane-growers were using iron mills, while the Assamese still were universally using the wooden mill. Even as late as 1921, bulk of the 14,279 sugarcane mills in the province of Assam were "of the most primitive kind".³⁶ However, the obsolete wooden mills disappeared rapidly in succeeding decades.

Some attempts were made in the first decade of this century to introduce steam crushing-mills as well. An Assamese gentleman-farmer started a 100-bigha sugarcane farm at Barpathar in Golaghat and, in 1905, started extracting sugar with a small centrifugal apparatus. A Marwari firm established similar plant in Dibrugarh, which was worked with a 2-horse-power steam engine. Even earlier, in the forties, a European had started a sugar mill in Gauhati. But these early ventures were all short-lived. Assam had to depend completely and increasingly on imported sugar. In 1905-6, the average import of raw sugar or jaggery into the Brahmaputra valley amounted to slightly above one lakh mds. and that of refined sugar to several thousand mds. Even after the starting of the Cooperative Sugar-mill refining sugar at Golaghat in 1958-9 the heavy dependence continues. As late as 1956, there were only 148 sugarcane crushers worked by power in Assam Proper as against 9,100 such crushers worked by bullock-power.³⁷

Grain Processing

One cannot but be surprised to find a big difference between the prices of unhusked and husked rice throughout the 19th century. This obviously resulted from scarcity of labour. However, it is a matter of greater surprise that, while the neighbouring Bhutia and the Khamti tribes of Assam had been operating their *dhenkis* with water-power since medieval times there was never any attempt by Assamese farmers to imitate them even where it was possible. Both the traditional foot-operated *dhenki* and the hand-operated mortar and pestle are in use till this day.

Machine-milling of rice started early this century, and to this day is dominated by Marwari capital. Despite there being as many as 70 or so of rice-mills in Assam Proper, more than half of the output of husked rice is even now *dhenki*-processed.

Silk Winding

As early as 1825-31, David Scott had visualised that improved sericulture could be a lever of development in Assam, because of its broad base. Scott's attempts to introduce the Bengal silk-winding machine—the one successfully introduced in India by the East India Company in the years 1770-1823—did not, however, succeed. The Bengal reeling machine, costing about Rs. 8 around 1907, was too expensive for general use in Assam. This machine was decidedly twice as good as the crude Assamese apparatus in point of output of silk per man-day. But even in Bengal, the machine was capable of producing superior silk only when used in a filature by professional workers. The Assamese silk-reelers could not in any case derive the same advantages from this costly machine in the absence of filatures.

In an Assamese machine, the thread is carried over a cross-stick or

between a pair of cross-sticks on its way, from the earthen basin holding water, to the reel.

In the Bengal machine as well as in all improved types of reeling apparatus, the thread is passed through a minute hole in a glass or porcelain button, which serves to keep back (1) any cocoons that may leap out of the basin, and (2) any clots of thread or fragments of cocoons that may come up with the thread.

—B. Basu, *The Silk Industry of Assam*, Shillong, 1915, p. 43

Even today, spinning of raw-silk is mostly done on a *takli* (often a fine piece of bamboo, with a ball of clay at the end) or with the help of a crude wooden *charkha*. Improved *charkhas*, costing Rs. 48 or above, are reaching the silk-rearers rather slowly, despite government efforts.

It may be noted here that in the last quarter of the 19th century, several experiments were made to organise capitalistic sericulture farms. The earliest such attempt was made in 1873 by Messrs Lister and Co. Between 1884 and 1889, several tea planters experimented with silk plantations. But all these attempts failed mainly because of uncontrollable plant diseases.³⁸ Till this day large-scale silk farms in Assam are conspicuous by their absence.

Processing of Fibres

In course of the latter half of the 19th century cotton cultivation disappeared because of two factors: (i) The neighbouring hills increasingly specialised in this produce, and (ii) Assamese handlooms made increasing use of imported yarn. Even so according to the Industrial Census of 1921, there were 358,913 handlooms—including not more than 3 to 4 thousand looms of fly shuttle type—and 145,656 spindles in the Brahmaputra valley in that year.³⁹

Although spinning—and with it cotton-ginning—died out in course of time, weaving survives as a household occupation of women at their leisure hours. They do not generally produce for the market and, as such, have not taken to any kind of improved looms, which alone could be worked on an economic basis. In 1951, the number of handlooms in the Brahmaputra valley was nearly the same as in 1921, but most of them remained idle almost all the year.

The processing of jute, however, has been in the hands of the Marwari traders ever since its emergence as an export commodity. Riverports and small towns in the jute-growing areas attracted jute godowns and baling presses, where wage-labour is employed to bale raw jute. These increasingly became the agencies of advancing credit to the farmers against the pledged delivery of their crops after harvest. The European jute

mill-owners of Calcutta had the complete control over the jute market.

Transport Revolution

But much more important than the technological changes noted above was, for agriculture, the revolution in transport, first brought in by the steamer service, and later by the expanding railways and the road system. The importance of the latter may be realised in the context of the fact that no wheeled carts were in use in pre-British Assam and that, even in the seventies, their use was limited to the plantations and the towns. During our period, the number of bullock carts in Assam Proper increased from a bare 3,990 in 1890-91 to 10,529 by 1898 and 19,799 by 1910. By 1961 the number has increased to 98,940 (Appendix Table 12). A district-wise breakdown suggests that the carts were initially more in use for carrying goods for the tea gardens than for ordinary farms. That is why the number of such carts was lowest in Kamrup—it was most thickly populated, but produced very little of tea—until 1915-16 (See Appendix Table 14). With the influx of immigrant population, the situation rapidly changed. Use of carts by others rapidly outstripped that by planters. Since the advent of automobiles, particularly from the thirties, tea gardens make minimum or no use of such carts.

In later decades, bullock carts became quite common in Assam as elsewhere in India. But, as compared to other parts of India, Assamese farmers make very limited use of them. Nevertheless, in most rural areas of the State still “bullock carts constitute a major means of transport, and this mode of transport is likely to remain for still many years ahead. But a discouraging fact is that the indigenous people have not taken to this industry”. The making of wooden wheels with iron rims for bullock and buffalo carts have remained, since their advent in Assam, a monopoly of a section of migrant blacksmiths from Bihar.⁴⁰

Processing of Tea

Throughout the period under review, the tea industry was undergoing a continuous revolution both in its agronomical and manufacturing aspects. Already towards the end of the sixties, the early experiments to mechanise tea-making on Assam gardens began to bear fruit. Kinmond's tea-rolling machine was first successfully tried out in 1867, with the use of animal power. This was followed by Jackson's cross-section roller (patented 1873), Lyle's roller (patented 1874), Jackson's rapid roller (1887) and various machines for sorting, rolling, drying and other operations. The crushing, tearing and curling (CTC) machine of 1931-32 is the most important of these inventions. The first motive power used was, in about 1868, the 3-horse-power engine and boilers for the Kinmond Rollers. The installation of one prime mover to drive the whole set of machinery did not develop until later. From 1915

onwards many gardens turned from steam to oil engines.⁴¹

Thus we find that while there was a burst of inventive genius and application of new inventions on some 600 to 700 tea plantations, the surrounding agrarian economy was undergoing only slow changes. As late as 1961, as against 773 thousand wooden ploughs there were only 1,264 iron ploughs and 299 government and private tractors. In the same year, altogether 97 oil-engines or electric pumps were used for irrigation purposes in the same area. In fact between 1956 and 1961 both the number of iron ploughs as well as irrigation pumps had gone down.⁴²

Changes in Output

Between 1871 and 1901, the per acre yield of tea had doubled (Appendix Table 2). It further increased to more than twice in course of the next fifty years. As a result, the output of tea in the Brahmaputra valley leaped up from 72 million lbs. in 1901 to 282.5 million lbs. in 1952, as can be seen from the following table.

Acreage, Output and Per Acre Yield of Tea in Brahmaputra Valley, 1952

District	Acreage	Crop (million lb.)	Yield per acre (lb.)
Lakhimpur	116,000	119.4	1046
Sibsagar	106,000	83.1	787
Nowgong	12,700	10.5	829
Darrang	63,000	63.8	1023
Kamrup	4,400	2.4	597
Goalpara	3,700	3.3	973
Total :	305,800	282.5	923

Source : C. R. Hurler, *The Culture and Marketing of Tea*, London, 1964, p. 121.

As against a 380 percent increase in the total output of tea over the half-century, the performance of the traditional crops is not impressive except in the case of jute. The rise in production of traditional crops is almost entirely due to increase in acreage—136 percent in the case of rice and from about 700 acres to 176,000 acres in the case of jute. With 1920-21 as the base-year, the index of jute acreage in Assam Proper moved to 459 by 1951 and 469 by 1961 (Appendix Table 8). As output figures of these crops were based on

estimated average returns and were less scientific for the early than for later years, it is difficult to ascertain the farm productivity trend of the period. Suffice it to say that all available 19th-century estimates put the per acre yield of crops at a higher level than the later estimates in our generation. It is possible that per acre yield of rice and several other crops was higher in the 19th century than today.⁴³ There was an estimated average annual surplus of 2.1 lakh tons in the rice production of Assam during the years 1951-52 and 1952-53. But in 1961 the surplus was turned into a slender deficit of 54,000 tons, because of a very high increase in population and consequent increased consumption meanwhile.⁴⁴

CONCLUSION

Finally the 'big push' given to the economy of Assam during the recent plan period is not altogether an unprecedented experience. In terms of per capita annual investment, the period from 1881 to 1911 is somewhat comparable with the present plan period. Despite certain basic differences, the operational significance appears to have been the same in both the cases. Both present us with a typical pattern of development—that of building up a modern sector almost entirely with imported factors of production including labour. These are "income-remitting" factors, to use Levin's terms, and the content of development is not local resource-based. The immediate impact of the development process has not 'therefore' been that of benefiting local inhabitants—particularly the indigenous elements—to the extent of the push itself.⁴⁵

As before, though not to the same extent, incomes generated through the development process are now concentrated into the hands of such industrialists, traders and contractors, as are mostly migrants from other areas, and maintain their ties therewith. For example, of the total amount of corporate capital invested in Assam plantations 76 percent was sterling capital, about 13 percent non-Indian-controlled rupee capital and only 11 percent Indian-controlled rupee capital, as of 1954.⁴⁶ Bulk of the Indian rupee capital again belonged, and still belongs, to non-indigenous elements who remit portions of their incomes to other states of India. Almost the entire trade and processing industries are in the hands of the Marwari community which hails from Rajasthan and Calcutta. Most of them rotate between Assam and their home State, migrating every few years. Family-wise, while some members stay in the field for earning, others remain at home spending the transferred earnings there. The semi-permanent nature of this community can be best understood from its 1951 sex-ratio which shows 5,528 females as against 11,752 Marwari males enumerated in the State of Assam.⁴⁷ This pattern, more or less, holds good also in the case of other "income-remitting" migrant factors of non-indigenous origin, including labour. Under such circumstances, the observation made in the Census Report of 1921 in connection with the develop-

ment of Lakhimpur district, holds equally good in the context of Assam's recent development activities as well :

While considerable profits have been made in the tea and other industries, it does not appear that the indigenous population has shared much in these....The rice mills and oil mills of Dibrugarh are owned by Marwaris. A good many of the professional positions are held by Bengalis ; wholesale and important retail trade is in the hands of men of Rajputana and of Eastern Bengal ; the smaller shops in villages are mostly kept by upcountrymen.

—*Assam Census Report 1921*, p. 14

To this we may add that almost the entire working class of Assam is non-Assamese in origin, and a considerable section of them remits money to places outside the province.

In any case, the State's national income figures (Appendix Table 1) should not mislead one in identifying the income generated within the area with the income spent within the area. To arrive at a realistic estimate of the income enjoyed or spent within the area, outpayments of interest and dividends beyond the area as well as remittances from earnings of non-indigenous labourers and traders have to be subtracted from the areas' gross domestic product.⁴⁸ This sort of accounting is all the more important because few people from Assam make their earnings elsewhere. Such accounting being difficult, what has been indicated above is only the broad pattern of income-flow. For our purposes, it is sufficient to remember that a considerable part of the export earnings of tea, coal, petroleum and forest products leaked out and still leaks out of the local income-flow, without an equivalent return in the form of visible and invisible imports and services, useful to the local society as such.

Even if things are not seen from a parochial point of view, and the whole of Indian economy is viewed as a single integrated unit, the problem does not vanish. It remains there as the problem of a depressed pocket or segment of society which heretofore has failed to receive the benefits of any periodic spurts of heavy investment expenditures whatsoever.

Some explanations of the frustrated growth in Assam may be given. The first increase in tea exports was not different in magnitude from that in the export of raw silk from Japan during the same period from 1871 to 1901. Yet tea failed to play the role of Japanese silk due to two factors. First, the silk-rearing being done in peasant homes, the benefits derived from foreign trade were widely absorbed into the agrarian society. Secondly, profits accumulated in Japanese hands were available to back up expenditures on local goods and in industrial investments for producing such goods. But neither of these factors was associated with tea. Tea was produced by migrant labour on

wastelands by migrant capital and managerial skill, and, as such, did not directly involve the peasant farms. Secondly, even the locally-disbursed earnings—a mere fraction of the total export earnings of the industry—were spent considerably, on such goods (refined sugar, mill cloth, wheat flour, carts etc.) as were outside the consumption-pattern of the indigenous society. Hence, these goods had to be imported. Profits were partly reinvested, no doubt, but in the same tea industry leading to over-production crisis by 1901 and in extractive industries which again attracted another round of labour, capital and managerial skill from outside. Consumer goods industries did not come up at all or developed slowly because the region's aggregate demand for the new types of goods was not enough to induce local production on a competitive basis. This was the basic problem till 1901 and remains so even today, while the emergence of new types of luxury consumption complicates the situation even more.

The coexistence of the impressive progress in terms of new railway mileage, oil refinery and pipe lines, defence-oriented net work of roads, factories and even production of selected cash crops along with the stagnated production in the subsistence sector is, therefore, not altogether inexplicable. Response of reactive nationalism to the challenge of times has been rather late in Assam, and as such is now fraught with an apprehensive psychology. Correct planning and the use of proper incentives to generate transmission of forces and their effects within the economy, alone, perhaps will cure the situation of its anomalies.

One surprising phenomenon of the period under review is the almost complete lack of urbanisation. In 1901, out of the 21 lakh population of Assam Proper, only 52,082 or 2.41 percent constituted the urban population. After half a century this percentage increased to 4.2 percent and by 1961 to 7.58 percent. Even a large part of this meagre growth in urban population was, in its last phase, particularly, due to influx of displaced persons from East Bengal. Almost till 1931, most of the towns were dominated by a non-indigenous middle-class-clerks and professional people from neighbouring provinces—whose emotional and material needs were to a considerable extent catered to from Calcutta, and who, under a complexity of circumstances, failed to transmit 'progress' to the peasant economy. Social composition of the towns—and of influence—began to change slowly only from around 1937 when popular ministries were formed in the provincial centres all over India.

Another surprising fact is that the population is not the densest where investments have continuously poured in for last one hundred years, but in those areas which are industrially least developed. For example, the district of Lakhimpur which accounts for nearly 50 percent of the area's industrial capital and employment and 52 percent of its gross industrial output has—with all its tea, coal and oil—a population density of only 317 per square mile. On the other

hand, the district of Nowgong, which accounts for hardly 5 percent of the area's industrial capital and employment and hardly 4 percent of its gross industrial output supports a population density of as high as 559 per square mile. Nowgong was the most densely-populated district of Assam Proper even in 1951, when it accounted for 18.2 percent of the rice acreage, 47.4 percent of the jute acreage and only 4.2 percent of the tea acreage of Assam Proper. In contrast, the least densely-populated Lakhimpur accounted for 13.5 percent, 37.9 percent and 2 percent of the respective rice, tea and jute acreages, in the same year. In 1901, however, the density in Nowgong was only 68 as against 82 in Lakhimpur. Jute made all the difference in 50 years.

This inverse ratio between population density and industrialisation is responsible for wide district-wise variations in the per capita national income (1960-61) as are given below :

	Kamrup Rs.	Darrang Rs.	Nowgong Rs.	Sibsagar Rs.	Lakhimpur Rs.
Per capita income	302	312	261	346	417
Density per square mile	542	383	559	437	317

The value of agricultural output per acre of gross cropped area, as of 1950-51, was only Rs. 197 for Kamrup and Rs. 348 for Nowgong as against Rs. 598 for Lakhimpur. This is because the last-mentioned district, with 17.9 percent of its gross cropped area under tea, accounted for 37.9 percent of the total tea area of Assam Proper. The per capita income of Lakhimpur district is apparently 60 percent higher than that of Nowgong. The latter's total income is only Rs. 310 million as against the former's Rs. 640 million.⁴⁹ In real life, much of the income of Lakhimpur District—particularly from tea, coal and oil—being remitted abroad, the difference is presumably narrowed down.

Lack of urbanisation, relatively low population density in high-investment areas, lack of identity between the area's output and income are some of the distortions created by the economic forces at play during the last one hundred years. What happened in one corner of North-east India is representative of similar developments in many other pockets of Indian society. The vulnerable economies of States like Tripura, Manipur and Goa, e. g., are not in a much different situation. Unless special care is taken by the planners and politicians, the imported development in these areas may even worsen conditions for their indigenous peoples. The problem needs a speedy solution.

TABLE 1

A: District and Sector-wise Distribution of National Income of Assam Proper: 1960-61

	Agriculture and allied activities in million Rs.	Tea industry in million Rs.	Other mining and manufacturing in million Rs.	Commerce, transport and communications in million Rs.	Services in million Rs.	Total income in million Rs.	Percentage to State income of Assam Proper	Per capita income in Rs.
Kamrup	318.0 (51.9%)	3.1 (0.5%)	90.7 (14.8%)	119.5 (19.5%)	81.5 (13.3%)	612.7 (100)	(24.8%)	302
Darrang	217.5 (54.9%)	79.2 (20.0%)	24.2 (6.1%)	34.5 (8.7%)	40.8 (10.3%)	396.2 (100)	(16.0%)	312
Nowgong	193.8 (62.5%)	13.0 (4.2%)	28.8 (9.3%)	42.5 (13.7%)	31.9 (10.3%)	310.0 (100)	(12.5%)	261
Sibsagar	213.6 (41.4%)	136.2 (26.4%)	33.0 (6.4%)	77.9 (15.1%)	55.2 (10.7%)	515.9 (100)	(20.8%)	346
Lakhimpur	168.9 (26.4%)	212.4 (33.2%)	116.4 (18.2%)	90.9 (14.2%)	51.2 (8.0%)	639.8 (100)	(25.9%)	417
Total Assam Proper	1111.8 (44.9%)	443.9 (17.9%)	293.1 (11.8%)	365.3 (14.8%)	260.6 (10.5%)	2474.6 (100)	(100)	
State of Assam	1720.9	504.5	407.9	493.7	450.8	3577.8	—	307

Income of Assam proper as percentage to the total State income = 69.2%

Figures in parentheses give percentages.

TABLE 1a
Relative Shares of Districts in the Industrial Development of Assam Proper in 1960

	Productive capital		Persons employed		Out put		Value added	
	Rs. in '000	Percentage to total	Number	Percentage to total	Rs. in '000	Percentage to total	Rs. in '000	Percentage to total
Kamrup	17892	2.62	3371	4.81	47157	4.85	7207	2.77
Darrang	92198	13.48	10229	14.61	145917	14.99	32695	12.59
Nowgong	34434	5.03	2374	3.39	37336	3.84	3167	1.22
Sibsagar	205001	29.97	19012	27.15	232333	23.87	51725	19.91
Lakhimpur	334428	48.90	35036	50.04	510384	52.45	164975	63.51
Assam Proper	683953	100	70022	100	973127	100	259769	100
State of Assam	779859		82176		1076438		278995	

Share in productive capital of Assam Proper in the total productive capital of the State = 90.27%
 Persons employed in industries of Assam Proper as percentage to total persons employed in Assam = 85.22%
 Industrial output of Assam Proper as percentage to the total output of Assam = 90.40%
 Value added in Assam Proper as percentage to value added in whole of Assam = 93.11%

TABLE 2
Tea Statistics of Assam Proper

Year	No. of planta- tions	Acreage under mature plants	Acreage under immature plants	Total area under tea (in acres)	Total approxi- mate yield (in lbs.)	Average yield per acre of mature plants	Acreage taken up but not planted
1875-76	457			59864	12602098	228.80	
1876-77	502			67337	15533792	254.11	
1877-78	511	57861	20634	78495	18852992	325.83	
1878-79	599	64987	24436	89423	18804256	289.35	
1879-80	667	64660	23550	88210	19625634	303.52	
1880	754	69015	20460	89475	21465551	311.03	
1881	772	76112	17690	93802	23683721	311.17	
1882	732	94388	14285	108673	28023527	296.90	
1883	724	98624	12388	111012	34041487	345.16	
1884	668	92968	13194	106162	32901486	353.90	
1885	637	90694	16798	107492	32530061	358.68	
1886	579	97101	15915	113016	37362740	384.78	
1887	570	100351	15227	115578	39081121	389.44	
1892	..	..	..	139582	48916479	408.86	435933
1893	..	..	..	145134	56926108	457.12	436807
1894	..	..	..	153874	56402244	426.24	440915
1895	..	..	..	154389	56497593	414.39	424422
1896	..	..	..	
1897	..	..	..	178720	58936773	384.37	394912
1898	..	..	..	191203	63603751	397.06	399168
1899	..	..	..	
1900	..	..	..	204285	75125176	426.75	422002
1901	..	..	..	204682	72381251	395.17	437636

Source : *Statistical Tables for British India*, 5th Issue (Calcutta, 1881).
Agricultural Statistics of British India, Vol. I and subsequent volumes.

TABLE 3

Assam Company's Statistics: 1872-1901

*Paid-up Capital = £ 2 Lakh (Rs. 2 million)

Year	Profit £	Dividend as % of paid up capital	Crop lb.	Average price per lb.	Gross earnings (Col. 4 × Col. 5)	Acreage under tea
1	2	3	4	5	6	7
1872	34658	17.5	1463391	22	134144	5200
1873	48223	22.5	1424185	25	148353	
1874	45026	22.5	1583540	23	151756	
1875	48811	25.0	1606395	23	153946	
1876	71978	35.0	1737178	25	180956	
1877	46494	25.0	1987256	21	173885	
1878	53179	27.0	2064118	21	180610	
1879	14899	10.0	2188800	17	155040	
1880	13177	7.0	2369470	14	138219	
1881	47807	25.0	2321415	16	154761	
1882	17936	10.0	2256385	13	122221	
1883	26017	14.0	2515169	13	136238	
1884	27526	14.0	2703744	12	135187	
1885	38129	20.0	2563863	13	138876	7609
1886	17278	10.0	2315439	12	115772	
1887	17058	10.0	2138733	13	115848	
1888	13126	7.0	2248700	12	112433	
1889	23120	10.0	2673748	11	122547	
1890	24731	10.0	2731179	11	125179	
1891	10575	6.0	3075847	9	115344	
1892	16733	9.0	2716374	11	124500	8236
1893	25573	12.0	3069447	13	166262	10027
1894	48339	20.0	3259493	13	176556	9975
1895	36743	20.0	3272662	12	163633	10009

1896	43294	20.0	3429510	12	171476	10223
1897	31288	17.5	3560480	12	178024	10448
1898	22037	12.5	3639138	12	181957	10509
1899	18333	10.0	3903618	10	162651	10740
1900	35	2.5	4381553	8	146052	11180
1901	16276	7.5	3456394	10	144016	10762
<hr/>						
Total	898390	458.5			4426444	
<hr/>						

Profit as percentage of gross earnings: 20.30%

*In more exact terms, paid-up capital stood at £ 187,160.

Source : *A History of the Assam Company 1839-1953*, pp. 409-10.

TABLE 4
Average Price Index of Rice, Salt and Tea from 1861 to 1901
 (Base year 1873=100)

4-year period	Average of prices : (Kamrup, Nowgong, Lakhimpur, and Goalpara taken together)		Average of maximum prices of Indian Pekoe tea (quoted in Calcutta)
	Rice	Salt	
1861-1864	96.71	94.87	
1865-1868	116.52	104.82	
1869-1872	105.47	98.58	
1874-1877	136.87	97.65	113.50
1878-1881	144.89	93.75	113.25
1882-1885	124.20	68.35	92.25
1886-1889	117.04	73.81	68.75
1890-1893	153.08	78.72	63.25
1894-1897	174.63	77.88	67.50
1898-1901	153.45	75.91	51.50

Source : Processed from, *Prices and Wages in India*, 19th Issue, pp. 2-3, 80-81 and 230.

In 1873, average price of rice was 18.60 seers per rupee and that of salt 7.02 seers per rupee. The price of tea (Indian Pekoe) per pound, in the same year was Re. 1-2 as.

TABLE 5

Average Monthly Wage of Agricultural and Plantation Labour

Year	Wage of able-bodied agricultural labour in Lakhimpur (in Rupees)	Index of the previous column (Base : 1873)	Year	Wage of Cachari labour at the Salonah Tea Plantation, Nowgong Distt. (Rupees)	Index of the previous column (Base : 1870)
1873	9.37	100	1870	5.83	100
Average of :					
1874-1878	6 to 9	77	1880	6.50	111
1878-1881	7 to 10	93	1890-1892	„	„
1882-1885	7 to 15	101	1893	5.90	102
1886-1889	7 to 10	92	1894-1899	„	„
1890-1893	8 to 10	95	1900	4.80	82
1894-1897	8 to 11	100	1901-1902	„	„
1898-1901	8 to 12	104			

Source : Processed from *Prices and Wages in India*, 19th issue, pp. 264-82, 319.

Wage of Cachari labour includes all allowances. In hoeing, full wage was earned on completion of light hoeing work of 20 *nulls*, a day. The varying work-loads have been converted to this norm, for our purposes of tabulation.

TABLE 6
Density of Population per Sq. Mile : Brahmaputra Valley

	1872	1881	1891	1901	1911	1921	1951	1961
I. Districts :								
Kamrup	146	167	164	153	173	198	387	542
Darrang	69	80	90	99	110	170	326	383
Nowgong	68	82	90	68	79	108	409	559
Sibsagar	64	79	96	120	138	162	351	437
Lakhimpur	27	40	56	82	104	143	265	317
Goalpara	98	113	115	117	152	193	415	385*
II. Sub-divisions of Darrang:								
Tezpur		42	—	77	101	157	333	337
Mangaldoi		146	—	137	124	140	316	458†

* Inclusion of a part of Garo Hills deflated the figure.

† Large increase obviously due to immigration.

Density per sq. mile in Assam Proper in 1951 was 347.

Source : *Assam Census Reports and District Census Handbooks.*

TABLE 7

Index of Acreage upto 1901 for Assam Proper
(Base 1884-85=100)

Year	Rice	Tea	Area cropped more than once	Net cropped area	Gross cropped area less area under tea	Index of population
1881						100
1884-1885	100	100	100	100	100	
1885-1886	105	101	110	105	106	
1886-1887	115	106	130	112	114	
1887-1888	117	109	123	113	114	
1888-1889	118	110	129	114	116	
1889-1890	115	117	129	114	115	
1890-1891	120	123	130	113	119	112
1891-1892	113	128	127	120	120	
1892-1893	126	131	132	128	129	
1893-1894	122	137	130	126	125	
1894-1895	124	145	119	123	121	
1895-1896	121	145	125	124	122	
1896-1897	121	155	126	125	122	
1897-1898	120	168	109	123	118	
1898-1899	122	180	107	124	118	
1899-1900	120	186	94	123	116	
1900-1901	116	192	90	122	113	119

Source : Worked out from Table 11.

TABLE 7a
Index of Acreage for Assam Proper
 (Base 1900-01=100)

Year	Rice	Tea	Area cropped more than once	Net cropped area	Gross cropped area other than under tea	Index of population
1900-1901	100	100	100	100	100	100
1910-1911	127	105	174	123	130	116
1920-1921	148	129	214	149	154	141
1930-1931	172	138	216	172	180	175
1940-1941	211	143	377	211	233	217
1950-1951	236	148	370	238	261	259

Source : Worked out from Table 11.

TABLE 8
Area under Jute Cultivation in the Brahmaputra Valley

(in acres)

Year	Kamrup	Darrang	Nowgong	Sibsagar	Lakhimpur	Total of Assam Proper	Goalpara
1901-1902	497	81	84	21	21	704	780*
1902-1903	694	69	45	21	21	850	25000
1903-1904	765	78	74	50	15	982	26500
1904-1905	732	87	73	38	11	941	21300

1905-1906	1372	87	156	38	21	1674	27800
1906-1907	4727	87	156	187	98	5255	33700
1907-1908	9276	883	1600	463	397	12619	70000
1908-1909	7748	1217	1500	280	200	10945	45514
1909-1910	5864	838	466	300	300	7768	31011
1910-1911	4615	739	357	200	100	6011	26664
1911-1912	5235	3227	879	128	100	9569	38676
1912-1913	6384	3893	3023	161	81	13542	43310
1913-1914	9526	6545	7900	271	151	24393	44053
1914-1915	12564	11941	12086	300	645	37536	45904
1915-1916	6768	6319	4557	600	226	18470	40115
1916-1917	7086	5801	5740	500	133	19260	53309
1917-1918	10746	7700	8947	435	130	27958	48442
1918-1919	13095	8324	10889	419	153	32880	50892
1919-1920	16955	10137	18779	470	208	46549	60035
1920-1921	15781	11419	21323	314	178	49015	56865
1950-1951	56976	28510	86245	1291	3125	176147	65621
1960-1961	73000	41000	109000	2000	5000	230000	

Index of acreage of Jute (Base 1920-21 = 100)

1920-1921	100	100	100	100	100	100	
1950-1951	361	250	404	411	1756	359	
1960-1961	463	359	511	637	2809	469	

*Partial coverage.

Source : *Agricultural Statistics of India*, Part I, Vol. 18 to V. 37.

Indian Agricultural Statistics, Part II, Vol. 60.

1960-61 figures from Assam Government sources.

TABLE 9

Percentage Area under Different Crops to Total Gross Cropped Area for Assam Proper: 1882-83 to 1900-01

Year	Rice	Other foodgrains including pulses	Sugarcane	Fibres	Oilseeds	Tea	Miscellaneous
1882-83	73.46	3.26	1.10		6.33	7.07	8.77
1883-84							
1884-85	67.30	3.11	1.17	0.05	9.13	7.04	12.19
1885-86	67.80	3.38	1.29	0.11	9.45	6.74	11.96
1886-87	68.29	3.04	1.19	0.12	8.75	6.60	12.02
1887-88	69.20	2.71	1.03	0.07	8.32	6.75	11.92
1888-89	68.72	3.42	1.10	0.06	8.37	6.70	11.62
1889-90	67.05	3.20	1.11	0.05	9.37	7.16	12.06
1890-91	67.82	3.10	1.05	0.05	8.65	7.27	12.07
1891-92	63.44	4.13	1.02	0.04	9.72	7.50	14.15
1892-93	66.08	3.68	1.01	0.02	9.08	7.18	12.95
1893-94	65.05	3.49	0.91	0.15	9.86	7.65	12.89
1894-95	67.74	3.31	0.97	0.13	7.12	8.31	12.42
1895-96	65.56	3.29	0.88	0.14	9.12	8.26	12.75
1896-97	65.21	3.96	1.00	0.21	9.45	8.75	11.42
1897-98	66.51	2.76	0.87	0.23	8.16	9.72	11.75
1898-99	67.10	3.56	0.81	0.20	6.55	10.35	11.43
1899-1900	66.79	3.88	0.91	0.24	5.86	10.88	11.44
1900-1901	65.77	3.54	0.99	0.21	6.45	11.39	11.65

Source : Worked out from Table 11.

TABLE 9a

Percentage Area under Different Crops to Total Gross Cropped Area, Assam Proper: 1901-02 to 1950-51: Select Years

Year	Rice	Other foodgrains including pulses	Sugarcane	Fibres	Oilseeds	Tea	Miscellaneous
1901-1902	65.65	3.70	1.19	0.26	7.40	10.79	11.01
1902-1903	65.70	3.54	1.09	0.22	7.98	10.64	10.82
1903-1904	67.30	3.64	0.98	0.30	7.81	10.39	9.58
1904-1905	67.92	3.85	0.95	0.19	6.96	10.44	9.00
1905-1906	66.28	3.94	1.04	0.36	7.65	10.88	9.86
1906-1907	65.96	4.09	1.06	0.46	8.24	10.59	9.61
1907-1908	68.20	4.00	1.05	0.80	8.09	10.17	7.69
1908-1909	65.69	4.05	1.05	0.72	8.27	9.78	10.45
1909-1910	65.63	4.78	0.98	0.59	8.75	9.54	9.72
1910-1911	65.60	4.84	0.82	0.60	8.77	9.39	9.98
1911-1912	68.14	3.31	0.86	0.76	7.68	9.52	9.72
1912-1913	66.70	3.52	0.83	0.89	7.97	9.57	10.54
1913-1914	64.57	4.00	0.89	1.33	8.19	9.59	11.44
1914-1915	64.30	3.45	0.87	1.79	8.24	9.81	11.54
1915-1916	64.97	3.57	0.79	0.94	7.92	9.60	12.20
1916-1917	65.08	4.00	0.78	0.94	6.56	9.53	13.12
1917-1918	65.89	4.10	0.75	1.29	6.31	9.47	12.19
1918-1919	66.47	4.27	0.74	1.41	6.93	9.56	10.63
1919-1920	63.15	4.55	0.77	1.95	7.29	9.84	12.45
1920-1921	64.49	4.16	0.79	2.02	7.68	9.71	11.15
1930-1931	64.34	3.84	0.48	3.44	6.60	8.97	12.33
1940-1941	62.33	4.97	0.70	4.87	7.42	7.30	12.41
1950-1951	62.75	4.08	1.00	4.18	5.47	6.81	15.71
1960-1961				5.10			

Source : Worked out from Table 11.

TABLE 10
Land Utilisation of Assam Proper: Select Years
 (In Acres)

Year	Total area by professional survey	Net Reported area	Column 3 as percentage of column 2	Net Cropped area	Column 5 as percentage of column 3
	1	2	3	4	5
1884-85	10910718	10534727	96.55	1367233	12.98
1885-86	10806732	10593834	98.03	1441060	13.60
1888-89	10760459	10557852	98.12	1560620	14.78
1892-93	10785732	10414402	96.56	1758064	16.88
1893-94	10804490	10609247	98.19	1719309	16.21
1900-01	12514530	12510178	99.97	1667375	13.33
1910-11	12968211	12968211	100.00	2057183	15.86
1920-21	13006704	13006704	100.00	2481443	19.08
1930-31	12851330	12851330	100.00	2877454	22.39
1940-41	12766080	12766080	100.00	3526011	27.62
1950-51	12533696	12533696	100.00	3975931	31.72

Source : *Return of Agricultural Statistics of British India*, Vol. 1 to 10.
Agricultural Statistics of British India, Vol. 11 ;
Agricultural Statistics of India, Part I, Vol. 17, 27, 37, 56.
Indian Agricultural Statistics, Part II, Vol. 60.

TABLE 11

Cropping Pattern in Assam Proper: 1882-83 to 1950-51
(area in nearest thousand acres)

Year	Rice	Other food-grains including pulses	Sugar-cane	Fibres	Oilseeds	Tea	Miscellaneous	Gross cropped area	Area cropped more than once	Net cropped area
1	2	3	4	5	6	7	8	9	10	11
1882-83*	975	43	15	N. A.	84	94	116	1327	127	1200
1884-85	1015	47	18	1	138	106	184	1508	141	1367
1885-86	1070	54	21	2	151	107	191	1596	155	1441
1886-87	1170	52	20	2	150	113	206	1712	183	1529
1887-88	1185	46	18	1	142	116	204	1713	173	1540
1888-89	1197	60	19	1	146	117	202	1742	181	1561
1889-90	1165	56	19	1	163	124	210	1737	181	1557
1890-91	1221	56	19	1	156	131	217	1801	183	1618
1891-92	1151	75	18	1	176	136	257	1815	179	1636
1892-93**	1284	71	20	—	176	140	252	1944	186	1758
1893-94	1237	66	17	3	187	146	245	1902	182	1719
1894-95	1256	61	18	2	132	154	230	1854	167	1687
1895-96	1225	61	16	3	171	154	238	1869	176	1692
1896-97	1226	74	19	4	178	164	215	1880	177	1702
1897-98†	1222	51	16	4	150	179	216	1838	153	1685
1898-99	1242	66	15	4	121	191	212	1851	150	1701
1899-1900	1215	71	17	4	107	198	208	1820	132	1688
1900-01	1180	63	18	4	116	204	209	1794	127	1667
1901-02	1245	70	23	5	140	205	209	1896	158	1739
1902-03	1276	69	21	4	155	207	210	1942	170	1772

(Contd....)

(Table 11 Continued)

1	2	3	4	5	6	7	8	9	10	11
1903-04	1321	71	19	6	153	204	188	1963	173	1791
1904-05	1336	76	19	4	137	205	191	1967	145	1822
1905-06	1259	75	20	7	145	207	187	1899	140	1760
1906-07	1291	80	21	9	161	207	188	1957	166	1791
1907-08	1395	82	21	16	165	208	157	2045	213	1832
1908-09	1411	87	23	15	177	210	224	2147	211	1936
1909-10	1457	106	22	13	194	212	216	2220	215	2005
1910-11	1494	110	19	14	200	214	227	2277	220	2057
1911-12	1556	76	20	17	175	217	222	2284	198	2086
1912-13	1546	81	19	21	185	222	244	2318	192	2126
1913-14	1517	94	21	31	192	225	269	2349	208	2141
1914-15	1516	81	21	42	194	231	272	2357	225	2132
1915-16	1602	88	20	23	195	237	301	2466	240	2225
1916-17	1651	101	20	24	166	242	333	2536	230	2306
1917-18	1732	108	20	34	166	249	320	2629	244	2385
1918-19	1766	113	20	37	184	254	282	2657	219	2438
1919-20	1655	119	20	51	191	258	326	2621	218	2404
1920-21	1751	113	21	55	209	264	303	2716	234	2481
1930-31	2027	121	15	108	208	283	389	3151	273	2877
1940-41	2496	199	28	195	297	292	497	4004	478	3526
1950-51	2789	181	44	186	243	302	698	4444	468	3976

*Data for 1882-83 are from *Report of the Administration of the Province of Assam for the years 1882-83* (Shillong, 1884), to which tea figures have been adjusted from other sources. Accordingly, we have revised the figures for net and gross cropped areas.

** In 1892-93, acreage planted with Sal forest was by mistake included in area under miscellaneous crops for one district, Kamrup. So the net and gross cropped areas also should be slightly less than what they appear to be.

† Earthquake year (June).

Source: *Returns of Agricultural Statistics of British India*, Vol. 1 to 10
Agricultural Statistics of British India, Vol. 11 to 16.
Agricultural Statistics of India, Part I, Vol. 17 to Vol. 37, Vol. 48, Vol. 56.
Indian Agricultural Statistics, Part II, Vol. 60.

TABLE 12

Number of Bullock Carts in Assam Proper

Year	Kamrup	Darrang	Nowgong	Sibsagar	Lakhimpur
1890-91	392	1052	528	1317	701
1898-99	804	3509	1099	3718	1399
1910-11	2048	7095	1987	6312	2357
1915-16	2700	9296	3565	7779	3024
1934-35	8982	15163	8646	9617	3709
1939-40	12577	14961	13382	9105	2912
1956-57	21170	22709	21114	8675	3668
1960-61	32315	29908	22561	9355	4801

Source : *Agricultural Statistics of British India*, Vol. 11, 16, 27, 32, 51.

Agricultural Statistics of India, 1939-40 to 1942-43, I, Table Vol. p. 63.

Statistical Abstract of Assam 1960-61, Table 4.5.

Livestock, Poultry, Agricultural Machinery and Implements in Assam and Rajasthan (1961 census), Supplement to *Agricultural Situation in India*—April 1964.

NOTES AND REFERENCES

1. Information on revenue figures are from *Arunodoi* (Assamese periodical), XXII, No. 1, January 1867 ; *Bengal Administrative Report for 1872-3*, p. 82.
About half of the Bengal Presidency's total excise revenue of nearly £310,000 in 1871-2 was drawn from the small population of Assam Proper and its neighbouring districts—*Bengal Administrative Report for 1871-2*, p. 155.
2. Investment per acre represents the cost on account of wages paid-out to 1.5 units of labour during the gestation period of four years, seeds and the pro-rata share of the overheads. My estimate is slightly higher than that of the *Report of the Commissioners appointed to enquire into the state and prospects of tea cultivation in Assam, Cachar and Sylhet, 1868*, Calcutta, 1868, pp. 4-6. There, the cost of bringing a plot of land to the crop-yielding stage was calculated to be of the order of Rs. 500 per acre.
In 1872 and 1873—quite normal years—the Assam Company had 5,200 acres under tea, and the market price of its £20 (Rs. 200) share ranged between £32 and £42. The value of its 10,000 shares at the average mean price divided by the given acreage roughly indicates the value of investment per acre at Rs. 712.
So our estimate of per-acre investment at Rs. 600, for the period preceding mechanisation of tea-processing, may be considered fairly reasonable. In any case, the paid-up share-capital of a Company is not a very good indicator of actual capital investment. For example, the Northern Assam Tea Company was incorporated in 1864 with a capital of £54,000. Next year it purchased the Northern Division (6,000 acres including 520 acres under tea) from the Assam Company for £100,000. The paid-up capital of the Company, in this case, would not have reflected the actual investment. Data used in this calculation are from H. A. Antrobus, *A History of the Assam Company 1839-1953*, Edinburgh, 1957, pp. 139-40, 409, 416.
3. *Bengal Administrative Report for 1867-8*, p. 207 and the same for 1868-9, p. 191.
4. According to the Government of Assam, the sum total of land revenue concessions granted to the planters till 1951 amounted to slightly above Rs. 10 crores. Taking into consideration also other indirect sacrifices, Shri B. R. Medhi in his Assam Budget speech of 1950-1 said : "For the development and encouragement of this Tea Industry, Assam had to sacrifice not less than 25 crores of rupees in the shape of revenue and other concessions in respect of fee-simple and other grants offered at nominal revenue."
5. In 1887 it was claimed that the investment was nearly £70 for each planted acre—D. H. Buchanon, *The Development of Capitalist Enterprise in India*, New York, 1934, p. 57. Converted into rupees, at the average exchange rate of the last two decades of the century, this estimate roughly approximates to Rs. 1000 per acre. This appears to be a fairly correct estimate valid at least upto the early twenties of our century. In 1923, the book value of the Assam Company's properties including 12,000 planted acres were revised at £ 754,070. This came to valuation of the Company's investment at £63 or around Rs. 900 per planted acre assuming zero value for wastelands. See Antrobus, n. 2, p. 204.
The Imperial Gazetteer of India, VI, New Ed., Oxford, 1908, p. 62, however, estimates the capital invested in tea at £30 per acre, for which no arguments are given ; presumably, the book-value of share-capital was taken as a basis of calculation. Hence, the under-estimation.
6. The estimates of railway investments have been worked out from various capital outlay and railway mileage figures for the relevant period in *Administrative Report on the Railways*

in *India for the Calendar year 1904*, London, 1905, pp. 22-23, 32-51, 179, 199-200, 231, 237-8 and 248 : *History of Indian Railways Constructed and the Progress upto 31st March 1918*, Government of India, Simla, 1919, pp. 153-5 and 178-9.

For the portion of Eastern Bengal Railway, the construction cost roughly averaged Rs. 1.6 lakh per mile and, for the portion of Assam-Bengal Railway, to Rs. 1.9 lakh per mile. For the minor railways, the average construction cost per mile varied from Rs. 24,000 in the case of Tezpur-Balipara Light Railway to Rs. 1.2 lakhs in the case of Dibru-Sadiya Railway.

Tea acreage figures are processed from Campbell, cited above, for 1871 and *Statistica Tables for British India*, 13th Issue, Calcutta, 1889 and the subsequent issues for other years.

7. Investment figures for coal and Petroleum are from *Imperial Gazetteer*, VI, n. 5, pp. 70-1: for saw mills, our estimate is based on relevant data in *Financial and Commercial Statistics of British India for the year 1899*, 6th Issue.

According to the latter source, the number of telegraph signalling offices increased from 10 in 1870-4 to 114 in 1897-8, in Assam Division.

8. In this respect, the official history of the Assam Company may be quoted : "...from the highest Administrative Officer in Calcutta and Assam to the newest joined Assistant were, speaking generally, all in this racket of using the circumstances of their employment to open out land under tea in competition with their own employers.

They were blatant enough to have taken up their lands near the boundary or actually adjoining the Company's grants, and it would not be difficult to guess from whence they obtained their tea-seed and labour.

To put it plainly, their employment by the Assam Company as Assistants gave them the necessary subsistence on which to live in the province while they pursued the objects of their own enterprise."—Antrobus, n. 2, pp. 113-4.

About the origin of the Jorehaut Tea Company, *ibid.*, p. 110.

9. Amongst such early planters may be mentioned J. B. Barrie, Civil Surgeon of Tezpur, and S. F. Hannay, Commandant of the Assam Light Infantry Battalion. See Antrobus, n. 2, pp. 314-5 and 395.

"Three Deputy Commissioners, four Assistant Commissioners and several police officers threw up their appointments to engage in tea planting"—Edward Gait, *A History of Assam*, 2nd Ed., Calcutta/Simla, 1926, p. 356.

10. *Assam Proceedings, Legislative Department*, Government of India (901) Nos. 48-102. According to this document, unskilled average wage in Assam, outside the tea industry, slowly rose from Rs. 4.28 in 1875-6 to 1878-9 to Rs. 6.2 in 1894-5 to 1898-9.
11. Antrobus, n. 2, p. 389 ; *Proceedings of the Bengal Council 1865-67*, p. 14.
12. Secy. of the Government of Bengal to the Secy., Government of India, Home Department, 3 December 1866, *Assam Proceedings, Legislative Department*, Government of Bengal, August 1867, No. 15 ; *Assam Proceedings, Legislative Department*, Government of India, 1901, Nos. 48-102.
13. Total settled area in Assam Proper, as of 1903-4, was 2,562 thousand acres, according to *Imperial Gazetteer*, VI, n. 5, p. 91. Total area in the occupation of tea gardens in 1901 amounted to 642,318 acres—204,682 acres planted and 437,636 acres remaining unplanted. See Table 2.
14. *Bengal Administrative Report, 1868-9*, p. 191. These figures for Assam Proper are, however expressly stated to be incomplete.

15. *The Hindoo Patriot*, Calcutta, 5 Feb. 1894 ; 30 March 1894 ; 9 April 1894.
16. In 1901, the plantations in Assam Proper employed 289,676 permanent workers and on an average 17,743 temporary workers on a daily basis, according to *Agricultural Statistics of British India*, Volume XVII.
The number of Assamese workers is from B. C. Allen (ed.), *Assam Provincial District Gazetteers*, V, Calcutta, 1906, pp. 81, 141.
17. Information on labour wastage, from *Report of the Assam Labour Enquiry Committee*, 1906, Chapter III, p. 13.
The total number of immigrant labour is estimated from annual immigration figures in the *Bengal Administrative Reports* upto 1873-4 and *Annual Reports of Inland Emigration*, 1878 to 1914-15.
18. Commissioner of Assam to Secy., Government of Bengal, 21 March 1867, *Assam Proceedings, Legislative Department*, Government of Bengal, August 1867, No. 15; Antrobus, n. 2, p. 389.
19. See the first paragraph of n. 6.
Quote from *History of Indian Railways*....., n. 6, p. 248.
Also see Daniel Thorner, "Great Britain and the Development of India's Railways", *The Journal of Economic History*, Fall, 1951, pp. 389-402.
20. *Bengal Administrative Report*, 1871-2, p. 140 ; *ibid.*, 1872-3, p. 12 ; *Assam Proceedings*, Revenue, Agriculture and Commerce Department, Government of India, December, 1874, No. 11.
Assam Administrative Report, 1883-4, p. v.
21. Estimated from figures in *Assam Census Report, 1881*, p. 29.
22. *An Account of the Province of Assam*, (Shillong, 1903, pp. 20, 129 ; *Eastern Bengal and Assam Administrative Report, 1905-1906*, p. 78 ; *Imperial Gazetteer*, VI, n. 5, p. 40-41.
23. *An Account of the Province of Assam*, n. 22, pp. 129-30 ; *Assam Census Report, 1921*, p. 14 ; *Imperial Gazetteer*, VI, n. 5, p. 43. According to *Assam Census Report, 1901*, p. 87, Assamese was spoken by 83 percent of the population of Kamrup, 66 percent of that of Nowgong and 59 percent of that of Sibsagar.
24. The data of Assam's trade with Bengal and with the frontier hills are separately given in *Imperial Gazetteer of India*, 2nd Ed., 1885, I, p. 367-8. We have combined them. Separate data relevant to Assam Proper, alone are not available.
In 1912-3, the over-all trade position of the province of Assam was as follows :
- | | |
|---------------|-----------------|
| Total Exports | : Rs. 129742771 |
| Total Imports | : Rs. 61569022 |
| Balance | : Rs. 68173749 |
- About 75 percent of the value of exports was represented by tea.
Source : *Assam Administrative Report, 1912-1913*, pp. 23-4 and VIII.
25. See n. 6.
26. See our Appendix—Table 9 and 9a also sources mentioned in n. 24.
27. All demographic data in this section are, unless stated otherwise, reproduced or worked out from census data as presented in *Assam Census Report, 1951*, pp. 66-80.
28. Worked out from Table 1.8 in *Statistical Abstract of Assam, 1960-61*, Shillong.
29. Worked out from Report on the *Land Revenue Administration of the Assam Valley Division for the year 1940-41*, Appendix IV, p. 21. The total settled area in Assam Proper in 1940-41 amounted to 4.8 million acres—*ibid.*, Appendix I, pp. 15-16.

30. E. T. Dalton, *Descriptive Ethnology of Bengal*, Calcutta, 1872, (Reprint, Calcutta 1960), pp. 33-4, 60-3, 81-7; J. Butler, *Sketch of Assam*, London, 1847, pp. 21-3; B. H. Baden-Powell, *Land Systems of British India*, III, London/New York, 1895, pp. 417-8.

Early land settlement surveys did not take note of the extent of shifting cultivation by tribal farmers.

When a tribal became a Hindu, he attained his new caste status step by step. Meanwhile he stopped taking liquor and rearing pigs. He changed his pile-house dwelling for mud-plinth dwelling, burial of the dead for cremation and his hoe for the plough. His new caste status also involved a change of language. See *Assam Census Report, 1881*, pp. 66-74; A Guha, "Ahom Migration: its impact on rice economy of medieval Assam" in *Artha Vijnana*, IX, Poona, 2 June 1967, pp. 142-50.

31. *Report of the Assam Banking Enquiry Committee 1929-30*, I, Shillong, 1930, p. 23.

32. William Robinson, *A Descriptive Account of Assam*, Calcutta/London, 1841, p. 48.

According to *Bengal Administrative Report, 1872-3*, p. 15, jute acreage in Eastern Bengal was marginal at least until 1852-3, and the people were ignorant as to which type of soil suited jute best. In this regard, similar conditions were prevailing also in Goalpara—the border district of the Brahmaputra valley. Even so, 20,000 mds. of jute were exported from this district in 1852.

Export of raw jute from India rose from 6000 cwts in 1833 to 560,000 cwts in 1850.

The Crimean War (1854-6) brought a rapid change in demand which, for the first time, encouraged the cultivation of *char* lands. Consequently, along with East Bengal, Goalpara also developed as an important jute-growing area, in the second half of the 19th century. It is surprising that Assam Proper, unlike Goalpara, was so late in catching up with the growing jute market.

33. G. N. Gupta, *A Survey of the Industries and Resources of Eastern Bengal and Assam for 1907-1908*, Shillong, 1909, pp. 70-1.

In 1911-2, the province of Assam exported 454,145 mds. of mustard seeds, while it imported 112,774 mds. of mustard oil and 137,267 mds. of oil cake—*Assam Administrative Report, 1911-1912*, p. 20.

34. Gupta, n. 33, p. 71; Antrobus, n. 2, p. 190-1.

35. J. A. Voelcker, *Report on the Improvement of Indian Agriculture*, London, 1893, pp. 217-27.

36. *Assam Administrative Report, 1883-84*, p. 65; Gupta, n. 33, p. 65; "Industrial census, 1921" in *Assam Census Report, 1921*, pp. 173-4.

37. Gupta, n. 33, pp. 66-9. The 1956 figures are from Table 4.5 in *Statistical Abstract of Assam, 1960-61*, n. 28, p. 86.

38. Information on silk-rearing have been collated from following sources: *An Account of the Province of Assam*, Shillong, 1915, pp. 15, 39-43; *Census of India, 1961*; *Selected Handicrafts of Assam*, Shillong, 1966, pp. 25-6.

39. *Assam Census Report, 1921*, pp. 173-4.

40. Quote and information from *Selected Handicrafts of Assam*, n. 38, p. 37.

41. Antrobus, n. 2, pp. 289-302; C. R. Hurler, *The Culture and Marketing of Tea*, London, 1964, pp. 171-2.

42. *Statistical Abstract of Assam, 1960-61*, n. 28, p. 86; and *Livestock, Poultry, Agricultural Machinery and Implements in Assam and Rajasthan* (1961 Census), p. 15.

43. The physical productivity of a good plot of wet rice land was roughly estimated by Mathie at 25 mds. of paddy per acre in 1835—Capt. Mathie to Jenkins, 15 Feb. 1835.

About 25 years earlier, Buchanon-Hamilton estimated that one plough of land—four to five acres in Assam—on the average, produced 79 mds. of paddy and 16 mds. of mustard in a year.

According to the *Assam Administrative Report 1883-84*, three years experiments showed the average outturn of paddy per acre to be 1500 lbs.; (=930 lbs. of rice) that of mustard 400 to 500 lbs. Experiments with sugarcane gave an average of 13 tons of cane to the acre. The productivity of mustard in the Brahmaputra valley was worked out at 500 lbs. on the basis of 1417 crop cuttings in about 492 acres in the nine years ending 1889-90—*Agricultural Statistics for British India*, Calcutta, 1900, p. xxiii.

44. P. C. Goswami, "Population growth and food-supply in Assam", *Economic Weekly*, 20 January 1962 (worked out from a table therein).
45. In examining the pattern of development in Assam, I have profitably consulted Prof. Levin's case-study of Peru and Burma. See J. V. Levin, *The Export Economics, Their Pattern of Development in Historical Perspective*, Massachusetts, 1960, pp. 1-15, 165-202. Also see H. W. Singer, "The distribution of gains between investing and borrowing countries", *The American Economic Review*, XI, May 1950, pp. 473-85.
46. *Report of the Plantation Enquiry Commission 1956*, Part I, Delhi, 1956, pp. 449-50, Annexure XIII (processed).
47. *Assam Census Report*, 1951, pp. 60 and 67.
48. Even in the case of postal money orders, outflow of money orders far exceeds the inflow thereof. In the absence of break-down figures, below are given the relevant figures for the whole of Assam Circle, i.e. States of Assam, Nagaland, Manipur, Tripura and the NEFA—for the year 1960-61.

	No. of Money Orders		Value of Money Orders
Issued	3127,126	Rs.	187931,788
Paid	1244,100	Rs.	72457,623
Net Outflow	1883,026	Rs.	115474,165

So a net sum of more than Rs. 11 crores represent the outflow of money through postal money orders alone; greater part of it is obviously from Assam Proper.

Source: *Statistical Abstract of the Indian Union*, 1962, p. 375.

49. Our Table 1; *Techno-economic Survey of Assam*, NCAER, New Delhi, 1962, Table 17, p. 208.

B. B. SARKAR

Trends in Land Utilisation and Cropping Pattern in West Bengal

MAN is intimately connected with land for his existence since land provides man with living space, food and variety of raw materials needed to satisfy human wants. Land is an important factor in West Bengal where still a very large proportion of people depend on it for living and employment: One reason for this is that food, a primary necessity of life, is an agricultural product. Second reason is that agriculture is the only industry which requires the extensive use of land as a factor of production. Since the relationship between man and land for long has been one of the most significant relationships, areas of the highest density have always been the areas with fertile land. Like other parts of India, in West Bengal also, food was the main basis for the localisation of all economic activities. In West Bengal, agriculture has been practised for several centuries and in rural areas, it has developed as a way of living and into a tradition rather than a mere profession. The system of agriculture that has developed is more a result of dire economic need of the population rather than the practice of any sophisticated theory of farming. Hence the study of trends in land utilisation and cropping pattern in West Bengal is of significance and is of academic and practical interest.

The main objectives of the present statistical study are four-fold. First, to derive and present here the data on land utilisation and cropping pattern over years for truncated West Bengal. Since 1890-91 the boundaries of districts of Bengal changed on a number of occasions due to political reasons and administrative decisions. The final blow came through the partition of Bengal in 1947. Therefore, it is very much difficult to get the required data for early years on agriculture for the present area of the State and its districts. Second

objective is to ascertain the nature and causes of changes in the trends in land utilization and cropping pattern in West Bengal over the period between 1890-91 and 1960-61. There have been changes and fluctuations in the nature and pattern of land use and cropping pattern due to changes in factors that govern the changes in both. Therefore, third objective, following from the second, would be to find the relationship between changes in governing factors and the consequent influence on land utilisation and cropping pattern in this State over the said period. Fourth objective is to draw some broad conclusions on the impact of land utilisation trend on the economy of West Bengal.

To start with the second and third objectives jointly, it is known that land utilisation over years is governed by a number of factors of which physical, economic, institutional and technological factors are important. Among the physical factors, changes in the course of rivers, diversion of channels carrying silt, change in climate, drought and flood may force farmers to accept a particular pattern of land use. Over a long period, change in climate, change in river course and distributive channels of rivers are effective in bringing change in land utilisation. Economic factors like change in population, growth of non-agricultural sector, prospects of higher returns from alternative uses of land, shift in favour of market oriented agriculture etc. are much more effective in bringing long term change in land use pattern. In an under-developed economy relying heavily on agriculture the single factor of population growth is effective in bringing long-term changes in land use. Other economic factors operate more in a diversified agricultural economy.

Institutional factors like change in land tenure system, change in political system are of recent origin in India and they have started exerting limited influence on the use of land in very recent years. During the period under our study, institutional factors did not have much influence on land use pattern excepting after 1950. Technological factors are yet to ground their claims. Achievements of some Government farms in West Bengal through higher technology of farming cannot be used as a case for West Bengal as a whole. Data on such farming are scanty and cannot be used for West Bengal.

Increasing population in a country largely depending on agriculture and with minimum opportunities for alternative means of livelihood, exert greater pressure on the existing land resulting in intensive utilisation of land. Increased demand for food alone causes higher land utilisation, both extensive and intensive. Demand for raw materials is associated with the rate of industrialisation and diversified demand following higher income. Diversification of agriculture is again encouraged by higher income level and expected higher returns from alternative crops. But all these factors are heavily influenced by population growth. Another offshoot of increased population and higher rate of land utilisation is the popularity of crop intensity or double cropping

particularly in areas where land utilisation has reached the maximum level. Double cropping practice is a way of increasing the supply of cultivable land which becomes scarce due to population increase. Though increased population pressure brings more land under double cropping, irrigation facilities, rainfall and enthusiasm on the part of farmers for reaping higher returns from land are important governing factors of crop intensity. Larger population reduces land-man ratio and intensifies pressure on land for food and living.

How the economic and physical factors have influenced the trend in land utilisation and cropping pattern in West Bengal since 1890? Before answering this question with the help of land use data for 70 years, it is necessary to speak a few words regarding the source, dependability and methods adopted for arriving at derived agricultural data for truncated West Bengal and its districts. As the period of study covers three-quarters of a century, presentation of decennial figures has been considered to be sufficient to show the trends in land utilisation and cropping pattern. Besides, only decennial figures are available for population. Another very significant point to be kept in mind is that the State of West Bengal, as it stands now, did not exist even before 1956. After the partition in 1947, Cooch-Bihar, formerly a princely State, joined West Bengal as a district in 1950 and Purulia was created from Manbhum and was given to West Bengal only in 1956. Small area from Purnea district in Bihar was transferred to West Bengal and was joined with West Dinajpur and Darjeeling districts in 1956. Therefore, the present shape of the State was finalised only in 1956.

For analysing the trend in land utilisation in West Bengal relevant data available for years before 1947 should correspond to the present size of the districts and the State. But the data available for early years relate to the size of the districts as prevailed in respective years in old province of Bengal. The percentage share of area of the present district in the area of the old district in respective years has been accepted as the basis for estimating the share of cropped area etc. of the present district in early years. For example, truncated Nadia district has only 54 percent of total area of Nadia district in 1930. Therefore 54 percent of cropped area etc. of Nadia district in 1930 has been assumed to be the cropped area of present Nadia. This proportionate basis for estimating district area under crops etc. for early years presupposes two important assumptions. (1) There was more or less even distribution of sown area throughout the district in Bengal. (2) There has not been any major change in land use pattern over years in a district. Topography of plain agricultural Bengal seems to have support for the assumptions excepting for districts like Darjeeling, Jalpaiguri and Manbhum of Bihar (Purulia district was a part of Manbhum district) where hilly regions prevailed. But the districts of Darjeeling and Jalpaiguri have not been affected appreciably by partition of Bengal. The percentage of total sown area of Manbhum gone

to Purulia corresponds to the percentage share of total area of Purulia in total area of Manbhum before 1956. This suggests that there was more or less even distribution of sown area in the district of Manbhum. Even if there occurs some discrepancies in distribution of sown area there is no alternative but to accept these assumptions. Derived data on land use and cropping pattern for West Bengal may have some degree of inaccuracy. But for the study of trends in land use and cropping pattern over a fairly long period, the inaccuracy will not vitiate the study. Complete absence of any official derived agricultural data for West Bengal is to be borne in mind.

Of the economic factors affecting land utilisation, growth of population is the most important. Table 1 shows that between 1901 and 1961 total population became more than double in West Bengal. (Population figures are derived figures for districts and West Bengal estimated by the Calcutta Metropolitan Planning Organisation, Government of West Bengal, Calcutta with suitable adjustments for changes in boundaries in districts.) Each census recorded increase in population over the previous census except the census of 1921 which recorded a fall in total population from 1911 census. Excepting in districts of Howrah, Hooghly and 24-Parganas where industrialisation started by the early part of the present century, and the districts of Darjeeling and Jalpaiguri due to spread of tea plantations, population declined in the other districts depending completely on agriculture. In spite of fall in population in 1921 it can be shown from the table that on the whole there has been rising trend of population in West Bengal from 1901 to 1961. Rise in population has been spectacular between 1951 and 1961 largely due to higher birth rate, lower death rate and large scale migration of people from East Pakistan and from different parts of India. People migrated from East Pakistan entered into agricultural profession by large number resulting in both extension and intensification of agriculture in West Bengal in recent years.

West Bengal attained high degree of land utilisation in 1890-91 when net sown area covered 57.07 percent of geographical area and reached the peak in 1960-61 when net sown area was 61.41 percent of geographical area. But the trend towards higher degree of land utilisation over the period of 70 years did not sail smoothly. Degree of land utilisation was characterised by fluctuations in a period when population was rising rapidly. Tables 3-8 explain the behaviour of trends in land utilisation in West Bengal and in districts. Net sown area started declining from 1900-1901, and reached the lowest figure in 1930-31. Since 1940-41 it started rising again and continued to rise upto 1960-61 without break.

If we compare the net sown area with total cultivable area of West Bengal the picture of land utilisation would be somewhat different. Table 3a explains the position of net sown area in total cultivable area. Net sown area covered fairly high percentage of cultivable area throughout the period

of 70 years with minor fluctuations. The percentage rose sharply from 58.62 to 84.41 during the period between 1940-41 and 1960-61.

The above total picture of land utilisation in West Bengal is not complete for all the years due to little information available for two new districts of Purulia and Cooch Behar and incomplete data for a few districts. A look into the picture of land utilisation in districts over years would help better understanding of these trends in West Bengal. Tables 10-11 explain the trend of acreage under total crops in districts of West Bengal. Fluctuations in land utilisation in all the districts excepting in Bankura, Nadia and Darjeeling were considerable in the period between 1900-01 to 1940-41. It is interesting to note that change in land utilisation in districts was not uniform in direction in years when total area under cultivation declined in West Bengal. In some districts decline in acreage reached the bottom in 1930-31 and in others in 1940-41. The change recorded in 1950 took uniform direction in all the districts towards rapid increase in acreage under cultivation. Increase is surprisingly high in districts of Nadia, Murshidabad and Maldah where crop intensity also increased appreciably by 1950. Rising population can not explain the behaviour of trend in land utilisation in West Bengal between 1900-01 and 1930-31 particularly. But if the entire period is taken into consideration there should be no hesitation in concluding that population growth in 70 years unmistakably maintained upward trend of covering more and more land under cultivation and double cropping. Over the period population growth definitely governed the trend in land utilisation.

Land utilisation is also governed by physical factors like fertility of soil which again depends, in the absence of fertilizer use, on inundated red water flow, regular rainfall and favourable weather for crops. Deposition of inundation silt is helpful for the maintenance of fertility of soil. The deterioration of the Damodar, the Ajoy, Mayurakshi, Rupnarayan as a result of land raising and fall in the water flow in the Bhagirathi river caused decline in deposition of annual silt. Construction of railway lines, bunds etc. also disturbed the spill channels which distributed silt over the crop lands. This decline in natural fertilisation of agricultural lands in districts of West Bengal started from the middle of 19th century but the problem was accentuated by the early part of the present century.

Another factor played important role in controlling land utilisation. Large scale spread of malaria in districts in epidemic form forced the people to migrate from villages, made them unfit for cultivation. "On account of the declining fertility, jungle growth and prevalence of malaria, the amount of good cultivable land left fallow is quite large in some districts of West Bengal". The situation was accentuated after 1900-01. Cropped area declined between 1901-02 and 1931-32 by 40 percent in Burdwan, 7 percent in Nadia, 14 percent in Murshidabad and 45 percent in Hooghly.¹ Similar situa-

tions happened in other districts. With the advent of World War II and with better medical facilities, malaria was controlled to some extent by 1940 and thereafter situation improved rapidly. Malaria menace was controlled by 1950. This very factor became a great relief to the farmers and villagers and helped better land utilisation.

The observation of Prof. Mukherjee relate to the old areas of districts. The present study shows that decline actually started from 1900-01 and continued upto 1930-31 almost without break in all the districts excepting a few. Thus it may be concluded here that the decline in acreage under crop in West Bengal was due to operation of physical factors rather than economic factors governing land utilisation during the said period.

Another aspect of land utilisation is crop intensity or double cropping involving higher degree of land utilisation. Crop intensity can be said to have maintained upward trend in West Bengal since 1890-91 but the trend did not show uniform pattern in the districts and there were fluctuations in the trend. Increased crop intensity is most impressive in Nadia, Murshidabad, West Dinajpur, 24-Parganas and Maldah districts. Area under double cropping in West Bengal as percentage of net sown area increased from 11.57 in 1900-01 to 16.26 in 1960-61. Irrigation facilities and even rainfall facilitate double cropping. But irrigation facilities in Bengal did not rise appreciably with rising demand for land and agricultural products since 1890-91. Area under irrigation as percentage of the net sown area increased from 10.48 in 1910-11 to 24.64 in 1960-61. Of the total irrigated area in 1960-61, 91.20 percent was under rice cultivation alone. Rainfall is concentrated in summer and irrigation facilities are lacking in winter. Both these factors are responsible for lower rise in crop intensity in West Bengal. In Murshidabad, Maldah, West Dinajpur and Nadia districts crop intensity increased not due to irrigation facilities. Lack of alternative profession, low yield rate and population pressure have encouraged farmers to practice double cropping. In 1960-61 about 67 percent of total area under double cropping was in 5 districts and 38 percent of total double cropped areas was in Nadia and Murshidabad districts only. It may be concluded here that though there was an unmistakable trend towards increase in area under irrigation, irrigated area was utilised for rice cultivation only. Irrigation facilities available in districts did not raise area under double cropping. On the other hand double cropping was practised most where irrigation facilities were minimum.

TRENDS IN CROPPING PATTERN

The cropping pattern since 1890-91 shows trend, without break, towards more emphasis on rice cultivation. Such emphasis is uniform in West Bengal throughout the period of our investigation. Rice cultivation occupied the largest portion of the cropped area upto 1940 excepting where hill areas and

tea plantations prevented large scale rice cultivation. Cultivation of other food crops also became important particularly in the districts of Nadia, Murshidabad and Maldah where rapid rise in area under gram, other pulses, oilseeds was recorded in 1950-51. Area under jute cultivation increased appreciably in the districts of Hooghly, 24-Parganas, Nadia, Murshidabad, Dinajpur, Maldah, Jalpaiguri and Cooch-Bihar. Sudden influx of population from East Pakistan; rapid rise in demand for other food crops due to increased population pressure; most of the jute growing areas of Bengal fell in East Pakistan; increasing government encouragement for diversified crop cultivation; prospect of better money income and general awareness; all these factors were responsible for bringing large areas under cultivation of crops other than rice. Extension of area under other crops was also the result of limited operation of economic factors other than growth of population, that govern the extent and pattern of land utilisation. Continuous rise in acreage under rice and foodgrains recorded in the period from 1950 to 1960 suggests that the increased area under other crops was not at the cost of area under rice or food crops. Emphasis on other crops was not at the cost of total rice area. Rice area even after partition continued to rise in all the districts. Rapid rise in acreage under non-food crops after 1940-41 though did not reduce the total area under rice, affected rice production adversely. Rapid increase in population has acted over years as a very powerful economic factor in shaping the direction of land use and cropping pattern in West Bengal. High degree of land utilisation in West Bengal has always been the result of dire economic need of the growing population. The strange coincidence between population growth and declining acreage under crops in early three decades of this century does not prove definitely that population pressure failed to govern the rate of land utilisation in West Bengal. During the said period physical factors governing land utilisation overpowered the economic factor, i. e., the population growth. But ultimately population growth factor exerted greater influence and governed land utilisation in West Bengal. This has been reflected in the cropping pattern of West Bengal. The single source of increased demand for foodgrains has been the population pressure. West Bengal is practically a monocropped State where rice alone occupies 3/4 of the total cultivated land.

After the partition of Bengal, and with increasing efforts on the parts of public and private sector towards economic development, other economic factors like non-agricultural demand, market oriented agriculture etc. are coming in prominence and have started influencing land use. Those economic factors are helping the emergence of a new pattern in our agriculture. But still the importance of foodgrain cultivation prevails. In 1890-91, ten out of 15 districts devoted more than 70 percent of cropped area for foodgrain cultivation. In 1960-61 foodgrains occupied more than 90 percent of cropped area in 7

districts and above 80 percent in 12 districts of West Bengal (See Tables 17-19). Hence increased acreage under crops other than rice was the result of extension of cultivation, and marginal adjustment of acreage between crops and increased area under double cropping.

CONCLUSION

If one considers the period between 1890-91 and 1960-61 as a whole it becomes evident that population growth maintained upward trend in West Bengal throughout the period and this upward trend unmistakably influenced the direction of land use. In the early three decades of the present century physical factors controlled land use and ultimately physical factors were overpowered by the single economic factor, i. e., population growth. Upto the year of 1940-41 no significant influence of other economic factors on land use pattern was noticed.

Increased population exerted more and more pressure on land for food and employment resulting in over-emphasis on the cultivation of rice. Exclusive preference for rice cultivation led to and perpetuated subsistence farming. Misuse or under utilisation of land became frequent. Continued subsistence farming dampened the spirit of farmers and destroyed their initiative for crop intensity, diversified agriculture and putting land in alternative uses. In the absence of any measure for developing agriculture either by the government or by the landlords, dependence on single cropping impoverished the widely practised traditional agriculture.

Crop intensity depends on irrigation facilities, rainfall throughout the year and marginal adjustment of timing between two crop seasons. The higher crop intensity in Murshidabad and Nadia districts without much irrigation facilities suggests that more land could have been put to double cropping in other districts to achieve higher return from the same plot of land. Irrigation is important but not always essential for crop intensity. The highest degree of land use in West Bengal points out that in future there is very limited scope of extensive cultivation in this State and all attempts should be concentrated to increase area under double cropping. Experience of Nadia and Murshidabad is an eye opener to our agricultural experts. Possibilities of increased crop intensity through adjustment of timings between crops should receive increased attention.

The pattern of agriculture in districts does not appear to be very different over the period of 70 years if one looks at the State of West Bengal as a whole. But close search reveals some differences in the pattern of agriculture between districts and some determined departure from the general pattern. This particular factor is marked in the new emerging agricultural pattern of districts in recent years. The new emerging pattern is reflected in rapid increase

in area under cash crops in a few districts particularly from 1950 and this very factor raises hope for agriculture in West Bengal. This new emerging pattern of land use is influenced by economic factors and the impact of economic factors on the land use pattern will increase rapidly in future.

That land as a source of income is both a flow and a fund seems to have been never understood by our farmers in developing a particular tradition of agriculture over years. Suitable adjustments in land use pattern geared to the need of expanding diversification of agriculture could have realised higher rate of return from the same plot of land. But this in no way suggests that food production is to be neglected. It is to be constantly kept in mind that this State with increasing population pressure had been and will remain a major consumer of agricultural goods particularly of foodgrains.

TABLE I
Population Trends in Districts of West Bengal 1901-61
(In '000)

Districts	1901	1911	1921	1931	1941	1951	1961	%rise in 60 years
Burdwan	1528	1538	1435	1576	1891	2192	3083	101.77
Birbhum	961	940	852	948	1048	1067	1446	50.47
Bankura	1116	1139	1020	1112	1029	1320	1665	49.19
Midnapur	2790	2821	2667	2789	3452	3359	4342	55.63
Howrah	851	944	997	1099	1490	1611	2039	139.60
Hooghly	1076	1115	1106	1142	1416	1604	2231	107.34
Calcutta	934	1016	1053	1165	2168	2699	2927	213.38
24-Parganas	2143	2460	2615	2864	3611	4460	6281	193.09
Nadia	773	776	712	722	840	1145	1713	121.60
Murshidabad	1323	1345	1224	1371	1641	1716	2290	73.09
Maldah	604	699	686	720	844	938	1222	102.32
West Dinajpur	741	792	696	746	835	977	1324	78.68
Darjeeling	266	280	294	332	391	460	625	134.96
Cooch-Bihar	565	591	591	589	639	669	1020	80.53
Jalpaiguri	547	663	696	741	848	917	1360	148.63
Purulia	778	884	832	972	1088	1169	1360	74.81
West Bengal	16996	17999	17476	18898	23231	26303	34928	105.51

TABLE 2

*Total Population in West Bengal**
(In '000)

Area Under Irrigation in West Bengal†
(In '000 Acres)

	1901	1961	% rise in 60 years	1910-11	1960-61	% rise in 50 years
Burdwan	1528	3083	101.77	450.81	563.90	125.09
Birbhum	961	1446	50.47	172.76	573.40	331.91
Bankura	1116	1665	49.19	87.83	298.20	339.52
Midnapur	2790	4342	55.63	207.88	684.90	329.47
Howrah	851	2039	139.60	—	59.50	—
Hooghly	1076	2231	107.34	138.53	232.60	167.91
24-Parganas	2143	6281	193.09	1.17	142.30	12162.39
Nadia	773	1713	121.60	1.20	19.00	1583.33
Murshidabad	1323	2290	73.09	140.20	218.30	155.71
West Dinajpur	741	1324	78.68	—	39.20	—
Maldah	604	1222	102.32	—	40.50	—
Jalpaiguri	547	1360	148.63	—	177.20	—
Darjeeling	266	625	134.96	29.14	55.60	190.80
Cooch-Behar	565	1020	80.53	—	—	—
Purulia	778	1360	74.81	78.69	203.10	258.10
West Bengal	16996	34928	105.51	1308.21	3307.70	252.80

*Population declined in 1921 and 1931 in districts. People migrated to other districts due to famine and malaria. Population declined in Burdwan, Birbhum, Bankura, Midnapur, Nadia, Murshidabad, West Dinajpur. It increased in industrial districts like 24-Parganas, Howrah, Hooghly and Calcutta and in the less malaria affected districts of North Bengal excepting Dinajpur.

†There were practically no mentionable irrigation facilities before 1910 and statistics are not available.

TABLE 3
Classification of Area in West Bengal (in '000 Acres)

Year	Area acc. to Village Paper Survey	Forest	Not available for cultivation	Cultivable waste	Current fallow	Net sown
1890-91			310	8388	559	12478
1900-01		1795	4304	2873	1754	10099
1910-11		1669	3627	3031	1329	9860
1920-21		1885	4285	3130	2881	9349
1930-31		1887	4451	2830	2996	7939
1940-41		1694	4565	3137	3057	8776
1950-51		1795	3748	1886	1079	12962
1960-61	21864	2722	3142	1579	900	13426

Derived—Area, calculated for respective years, according to the present size of each district. Total area of West Bengal for all the years has been assumed to be equal with the area in 1960-61. All other figures have been derived from the original area on the basis of the present size of the State and districts.

TABLE 3a
(In '000 Acres)

Years	Total cultivable area	Net sown area as p. c. of total cultivable area
1890	21425	58.24
1900	14726	68.58
1910	14220	69.34
1920	15360	60.87
1930	13765	57.68
1940	14970	58.62
1950	15927	81.38
1960	15905	84.41

TABLE 4
Classification of Area by District in West Bengal Forest (in '000 Acres)

Districts	1890-91	1900-01	1910-11	1920-21	1930-31	1940-41	1950-51	1960-61
Burdwan	—	—	—	—	—	—	—	45
Birbhum	—	—	—	—	—	—	—	10
Bankura	—	—	89	—	—	—	—	333
Midnapur	—	—	—	—	—	—	—	353
Howrah	—	—	—	—	—	—	—	—
Hooghly	—	—	—	—	—	—	—	0.5
24-Parganas	—	1240	1280	1279	1308	1116	1126	1052
Nadia	—	—	—	—	—	—	—	1
Murshidabad	—	—	—	—	—	—	—	1.5
West Dinajpur	—	—	—	—	—	—	—	1.5
Maldah	—	—	—	—	—	—	—	1.5
Jalpaiguri	—	252	—	276	292	292	364	413
Darjeeling	—	287	284	284	287	286	290	292
Cooch-Bihar	—	—	—	—	—	—	15	—
Purulia	—	6	6	6	—	—	—	218
West Bengal	—	1795	1669	1855	1887	1694	1795	2722

TABLE 5

Classification of Area by District, West Bengal Area not Available for Cultivation (in '000 Acres)

Districts	1890-91	1900-01	1910-11	1920-21	1930-31	1940-41	1950-51	1960-61
Burdwan	N.A.	138	302	302	305	438	346	341
Birbhum	N.A.	135	136	136	136	299	175	175
Bankura	N.A.	170	81	169	519	390	300	102
Midnapur	N.A.	910	976	976	655	779	674	350
Howrah	N.A.	N.A.	57	58	68	68	78	90
Hooghly	N.A.	273	200	268	275	302	138	154
24-Parganas	N.A.	893	667	669	670	613	546	644
Nadia	262	262	203	284	241	103	88	142
Murshidabad	48	146	146	146	316	236	174	189
West Dinajpur	N.A.	270	N.A.	270	270	270	226	161
Maldah	N.A.	121	121	120	109	99	86	88
Jalpaiguri	N.A.	198	N.A.	146	146	147	210	242
Darjeeling	N.A.	258	208	211	211	291	177	130
Cooch-Bihar	—	—	—	—	—	—	—	113
Purulia	N.A.	530	530	530	—	—	—	221
West Bengal	310	4304	3627	4285	4451	4565	3748	3142

TABLE 6
Classification of Area by District, West Bengal Cultivable Waste (in '000 Acres)

Districts	1890-91	1900-01	1910-11	1920-21	1930-31	1940-41	1950-51	1960-61
Burdwan	447	90	209	209	300	240	163	88
Birbhum	659	89	187	247	345	182	87	36
Bankura	1035	839	899	814	313	349	248	201
Midnapur	1254	202	475	302	396	634	248	228
Howrah	N.A.	N.A.	17	17	94	28	16	9
Hooghly	276	85	68	40	67	71	30	25
24-Parganas	968	383	394	386	385	676	335	228
Nadia	188	188	158	99	141	233	93	47
Murshidabad	404	194	259	249	131	108	108	64
West Dinajpur	463	224	N.A.	144	144	144	93	64
Maldah	296	242	242	226	204	203	60	36
Jalpaiguri	822	206	N.A.	274	265	264	230	121
Darjeeling	588	52	44	45	45	5	50	42
Cooch-Bihar	—	—	—	—	—	—	125	67
Purulia	985	79	79	78	—	—	—	323
West Bengal	8388	2873	3031	3031	2830	3137	1886	1579

TABLE 7

Classification of Area by District, West Bengal Current Fallow (in '000 Acres)

Districts	1890-91	1900-01	1910-11	1920-21	1930-31	1940-41	1950-51	1960-61
Burdwan	N.A.	194	309	510	567	629	60	26
Birbhum	N.A.	193	15	6	19	364	25	45
Bankura	N.A.	188	57	144	114	360	221	215
Midnapur	N.A.	105	—	90	294	330	103	169
Howrah	—	—	63	123	81	21	11	10
Hooghly	N.A.	84	102	142	176	120	9	7
24-Parganas	N.A.	34	78	316	410	239	96	69
Nadia	197	198	246	210	315	111	206	12
Murshidabad	362	91	363	421	189	135	31	50
West Dinajpur	N.A.	162	—	337	375	341	100	42
Maldah	N.A.	31	31	67	63	271	83	68
Jalpaiguri	N.A.	271	—	207	353	162	101	27
Darjeeling	N.A.	29	31	42	40	4	33	11
Cooch-Bihar	—	—	—	—	—	—	—	—
Purulia	—	174	34	266	—	—	—	149
West Bengal	559	1754	1329	2881	2996	3057	1079	900

Area derived for respective years according to the present size of each district.

TABLE 8

Classification of Area by District, West Bengal Net Sown Area (in '000 Acres)

Districts	1890-91	1900-01	1910-11	1920-21	1930-31	1940-41*	1950-51	1960-61
Burdwan	1287	703	910	708	556	429	1162	1230
Birbhum	457	698	778	727	615	300	807	849
Bankura	659	479	568	568	750	594	925	842
Midnapur	2099	2147	1902	1987	2014	1617	2338	2260
Howrah	—	—	221	160	113	241	253	249
Hooghly	496	329	404	324	256	284	597	588
24-Parganas	2614	1001	1205	977	865	974	1533	1635
Nadia	318	318	357	372	268	514	579	763
Murshidabad	925	902	564	513	692	845	1111	1021
West Dinajpur	907	808	808	613	575	614	950	1104
Maldah	592	493	493	475	403	319	662	697
Jalpaiguri	670	589	589	611	463	647	614	715
Darjeeling	179	142	170	156	156	185	218	242
Cooch-Behar	—	—	—	—	—	—	500	601
Purulia	554	751	891	658	713	713	713	630
West Bengal	12478	10099	9860	9349	7939	8776	12962	13426

Area calculated for respective years according to the present size of each district.

*Figures derived for the year 1940-41 appear to be very low and to some extent inconsistent. Derived figures are lower due to lower figures shown in the original source. Reasons are: (1) World War II broke out and large number of rural people left farm temporarily to accept jobs related to war efforts. (2) There was practically no methodical collection of agricultural data. Due to war government officers were kept engaged otherwise.

TABLE 9
Area Sown More Than Once ('000 Acres)

Districts	1890-91	1900-01	1910-11	1920-21	1930-31	1940-41	1950-51	1960-61
Burdwan	—	190	220	220	216	117	42	88
Birbhum	—	33	25	140	54	21	61	110
Bankura	3	30	24	31	28	27	42	47
Midnapur	—	74	47	47	10	135	109	195
Howrah	—	—	42	22	20	26	33	47
Hooghly	—	43	41	11	47	95	49	101
24-Parganas	—	41	53	170	146	113	200	225
Nadia	60	161	161	172	205	252	228	390
Murshidabad	—	220	207	142	174	299	402	442
West Dinajpur	—	27	—	5	—	—	125	207
Maldah	—	91	—	55	72	46	137	198
Jalapaiguri	—	167	—	86	139	24	37	59
Darjeeling	47	34	10	10	17	17	22	40
Cooch-Bihar	—	—	—	—	—	—	73	84
Purulia	—	88	44	—	—	—	—	35
West Bengal	—	1169	873	1111	1128	1172	1487	2184
	—	(11.57)	(8.85)	(11.88)	(14.21)	(13.35)	(11.00)	(16.26)

Figures in brackets are % of net sown area.

TABLE 10

Total Cropped Area by District (in '000 Acres)

Districts	1890-91	1900-01	1910-11	1920-21	1930-31	1940-41	1950-51	1960-61
Burdwan	1467	1268	1130	930	777	546	1205	1318
Birbhum	880	731	803	867	670	354	868	959
Midnapur	2289	2343	1953	2039	2024	1829	2447	2456
Howrah	—	—	263	182	134	267	287	296
Hooghly	536	374	446	336	303	309	646	690
24-Parganas	2654	1042	1258	1179	1022	1087	1733	1860
Nadia	378	480	520	545	473	766	807	1153
Murshidabad	1125	1120	771	655	866	1146	1513	1484
West Dinajpur	927	840	N.A.	622	578	615	1075	1311
Maldah	592	585	N.A.	531	532	365	800	895
Jalpaiguri	770	756	N.A.	699	603	674	651	774
Darjeeling	227	176	180	167	173	202	240	282
Cooch-Bihar	—	—	—	—	—	—	573	685
Purulia	554	829	935	—	—	—	—	665
West Bengal	13061	11081	8852	9351	8933	9051	13811	15718

N.B. Total cropped area has been derived from the figures showing area under total crops. Where such figures were not available or were doubtful, net sown area and area sown more than once have been taken together to find out cropped area.

TABLE 11
*Total Cropped Area as % of Total Area**

Districts	1890-91	1900-01	1910-11	1920-21	1930-31	1940-41	1950-51	1960-61
Burdwan	84.75	73.25	65.28	53.73	44.89	31.54	89.61	76.14
Birbhum	78.92	65.56	72.02	77.76	60.09	31.75	77.85	86.01
Bankura	39.10	31.13	35.03	35.38	45.95	48.49	57.06	52.57
Midnapur	68.10	69.71	58.11	60.67	60.22	54.42	72.81	73.07
Howrah	—	—	73.46	50.84	37.43	74.58	80.17	82.68
Hooghly	69.16	48.26	57.55	43.35	39.10	48.90	83.35	89.03
24-Parganas	73.13	28.71	34.66	32.49	28.16	29.95	47.75	51.25
Nadia	39.13	49.69	53.83	56.42	48.96	79.30	83.54	119.36
Murshidabad	84.84	84.46	58.14	49.40	65.31	86.42	114.10	111.91
West Dinajpur	67.57	61.22	N.A.	45.34	42.13	44.82	78.35	95.15
Maldah	66.52	65.73	N.A.	59.66	59.77	41.01	89.89	100.56
Jalpaiguri	50.69	49.77	N.A.	46.02	39.70	44.37	42.86	50.95
Darjeeling	29.60	22.95	23.47	21.77	22.56	26.34	31.29	36.77
Cooch Behar	—	—	—	—	—	—	69.62	83.23
Purulia	36.00	54.52	60.75	—	—	—	—	43.21
West Bengal	59.74	50.68	40.49	42.77	40.86	41.40	63.17	71.89

Total is lower as the data for all districts were not available.

*If total cropped area is shown as % of total rural area instead of total area, the percentage share of total cropped area would be still higher.

TABLE 12

Crop Area by District (in '000 Acres)

	TOTAL RICE								TOTAL CEREALS							
	1890-91	1900-01	'10-11	'20-21	'30-31	'40-41	'50-51	'60-61	1890-91	1900-01	'10-11	'20-21	'30-31	'40-41	'50-51	'60-61
Burdwan	1108	1013	926	793	680	464	1064	1147	1119	1026	939	804	685	466	1072	1157
Birbhum	634	672	745	684	627	283	764	775	651	679	750	689	633	287	782	793
Bankura	433	421	500	536	699	550	857	795	440	434	441	547	715	559	745	809
Midnapur	1816	1568	1488	1903	1908	1539	2152	2150	1845	1598	1511	1911	1919	1079	2159	2155
Howrah	—	—	152	145	107	225	216	220	—	—	152	146	107	226	220	220
Hooghly	387	292	297	249	225	276	472	490	387	292	301	252	227	277	475	491
24-Parganas	2139	911	1079	924	854	988	1401	1535	2139	911	1079	1030	855	989	1404	1535
Nadia	211	214	352	353	353	461	431	550	211	230	365	362	359	477	463	571
Murshidabad	490	521	495	475	551	650	676	751	490	722	611	509	587	721	757	819
West Dinajpur	748	675	547	511	472	442	813	995	748	685	552	514	490	444	821	1009
Maldah	253	317	436	357	359	194	435	490	378	405	493	420	418	240	491	565
Jalpaiguri	576	399	575	465	382	421	412	483	583	403	579	467	385	423	418	493
Darjeeling	100	52	41	30	32	61	64	82	127	94	117	96	86	72	129	159
Purulia	247	567	730	557	—	—	—	590	293	627	793	559	—	—	—	604
Cooch-Bihar	—	—	—	—	—	—	408	481	—	—	—	—	—	—	413	485
West Bengal	9143	7622	8363	7982	7249	6554	10165	11534	9411	8106	8683	8306	7466	6860	10349	11865

TABLE 13
Crop Area by District (in '000 Acres)

	TOTAL GRAM								OTHER PULSES AND INFERIOR FOODGRAINS*							
	1890-91	1900-01	'10-11	'20-21	'30-31	'40-41	'50-51	'60-61	1890-91	1900-01	'10-11	'20-21	'30-31	'40-41	'50-51	'60-61
Burdwan	—	7	9	4	3	5	17	20	156	73	48	38	23	19	37	71
Birbhum	—	5	7	6	7	4	23	27	12	3	4	5	5	3	32	93
Bankura	—	6	7	3	2	1	8	4	26	17	15	5	18	15	36	29
Midnapur	—	1	5	7	5	2	5	2	27	219	157	43	25	13	135	227
Howrah	—	—	—	.1	.1	.8	2	.5	—	—	12	7	6	13	25	54
Hooghly	—	.1	2	1	1	4	6	5	90	20	4	4	5	16	49	65
24-Parganas	6	6	.5	.4	1	.8	12	23	116	30	35	26	33	23	126	156
Nadia	—	70	37	40	18	68	86	125	43	57	25	53	16	81	110	250
Murshidabad	—	86	31	30	51	109	134	115	237	97	68	39	34	123	231	277
West Dinajpur	—	21	8	.4	.3	.9	5	7	21	1	5	5	5	5	36	70
Maldah	—	15	9	7	8	8	20	45	107	7	—	26	26	33	174	166
Jalpaiguri	—	—	—	3	—	—	3	8	6	14	—	11	10	10	11	19
Darjeeling	—	—	—	—	—	—	—	—	82	8	4	—	3	3	19	28
Cooch-behar	—	—	—	—	—	—	.1	—	—	—	—	—	—	—	24	31
Purulia	—	—	—	—	—	—	—	—	38	14	32	32	—	—	—	53
West Bengal	6	217	116	102	96.4	204	321	382	961	560	262	299	204	338	1045	1589

*Inferior Foodgrains refer to small millets etc. which constitute a very insignificant portion of the production of other cereals.

TABLE 14

Crop Area by District (in '000 Acres)

	TOTAL FOODGRAINS								TOTAL OILSEEDS							
	1890-91	1900-01	'10-11	'20-21	'30-31	'40-41	'50-51	'60-61	1890-91	1900-01	'10-11	'20-21	'30-31	'40-41	'50-51	'60-61
Burdwan	1275	1106	996	846	711	490	1141	1248	47	52	42	15	13	9	4	12
Birbhum	663	689	761	700	645	294	852	913	5	3	4	4	4	4	4	10
Bankura	466	458	463	555	735	575	789	842	11	27	18	14	22	21	22	11
Midnapur	1872	1820	1673	1961	1949	1694	2299	2384	105	107	79	20	28	18	18	13
Howrah	—	—	164	153	113	240	247	275	—	—	3	1	.5	.7	4	1
Hooghly	477	312	307	257	233	297	530	561	2	6	11	7	2	2	4	4
24-Parganas	2261	945	1115	1056	889	1013	1542	1697	4	5	2	2	2	2	12	8
Nadia	244	323	427	455	393	626	659	940	50	43	38	30	25	48	36	62
Murshidabad	727	914	710	578	672	954	1122	1201	71	78	47	33	35	59	59	78
West Dinajpur	769	696	560	520	495	450	862	1066	10	65	36	30	29	30	94	68
Maldah	485	412	502	453	452	281	685	753	38	50	46	14	14	15	33	45
Jalpaiguri	589	417	579	481	395	433	432	504	60	23	40	37	32	33	28	17
Darjeeling	209	102	121	101	89	75	148	179	7	7	4	2	1	2	3	4
Cooch Behar	—	—	—	—	—	—	437	511	—	—	—	—	—	—	41	22
Purulia	331	641	865	591	—	—	—	653	—	—	—	—	—	—	—	—
West Bengal	10378	8835	9243	8707	7771	7422	11745	13731	410	466	370	209	207	244	362	355

TABLE 15

Crop Area by District (in '000 Acres)

	JUTE								SUGARCANE (CROP)							
	1890-91	1900-01	'10-11	'20-21	'30-31	'40-41	'50-51	'60-61	1890-91	1900-01	'10-11	'20-21	'30-31	'40-41	'50-51	'60-61
Burdwan	10	11	17	6	3	9	16	18	48	28	21	19	14	11	8	10
Birbhum	.03	—	—	—	—	—	1	1	7	8	9	9	9	9	5	17
Bankura	1	1	—	—	—	—	2	2	15	16	11	11	3	4	3	6
Midnapur	58	13	11	8	8	11	43	20	41	16	16	4	5	5	7	3
Howrah	—	—	37	11	7	11	12	10	—	—	8	5	2	3	3	1
Hooghly	14	9	53	27	29	35	56	60	23	10	7	5	3	2	3	5
24-Parganas	88	39	94	56	81	48	105	63	69	5	5	6	2	3	2	8
Nadia	25	16	19	31	30	47	77	65	9	5	4	5	3	10	5	17
West Dinajpur	58	43	61	36	40	81	66	112	14	16	16	17	17	28	3	5
Murshidabad	27	23	27	15	32	60	155	121	15	16	3	3	2	10	11	18
Maldah	26	15	20	14	29	45	52	53	2	2	.1	.1	.3	3	4	8
Jalpaiguri	51	51	65	45	34	61	35	88	24	—	3	4	4	5	1	1
Darjeeling	13	2	5	3	4	2	3	6	3	4	.1	.2	.3	.2	.2	1
Cooch-Bihar	—	—	—	—	—	—	59	100	—	—	—	—	—	—	.2	—
Purulia	—	—	—	—	—	—	—	—	31	12	8	5	—	—	—	2
West Bengal	374	223	409	252	297	410	682	719	301	138	114.2	93.3	64.6	93.2	55.4	102

TABLE 16
Crop Area by District (in '000 Acres)
 FRUITS AND VEGETABLES

	1900-01	1910-11	1920-21	1930-31	1940-41	1950-51	1960-61
Burdwan	5	5	5	24	11	43	37
Birbhum	25	25	25	11	10	19	27
Bankura	3	5	6	10	13	16	17
Midnapur	17	24	14	12	10	64	69
Howrah	—	37	9	7	11	25	10
Hooghly	6	50	7	8	12	52	59
24-Parganas	15	18	12	22	19	58	50
Nadia	32	15	3	3	12	15	15
Murshidabad	19	20	4	61	29	58	25
W. Dinajpur	.001	—	10	3	14	15	17
Maldah	7	—	9	2	2	9	10
Jalpaiguri	9	—	75	12	16	19	12
Darjeeling	.002	.006	1	2	2	11	12
Cooch-Behar	—	—	—	—	—	4	7
Purulia	14	—	—	—	—	—	5
West Wengal	152	200	180	177	161	408	372

TABLE 17

Area Under Crop as P. C. of Area Under Total Crops

	RICE								TOTAL CEREALS							
	1890-91	1900-01	'10-11	'20-21	'30-31	'40-41	'50-51	'60-61	1890-91	1900-01	'10-11	'20-21	'30-31	'40-41	'50-51	'60-61
Burdwan	75.53	79.89	81.95	85.27	87.52	84.98	88.30	83.99	76.28	80.91	83.10	86.45	88.16	85.35	88.96	87.78
Birbhum	72.05	91.93	92.78	78.89	93.58	78.94	77.65	80.81	73.98	92.89	93.40	79.47	94.48	81.07	90.09	82.69
Bankura	65.41	79.89	84.32	89.48	89.85	66.99	88.72	89.33	66.47	82.35	74.37	91.31	91.90	68.09	77.12	90.90
Midnapur	79.38	66.92	76.19	93.33	94.27	84.14	87.94	87.54	80.60	68.20	77.37	93.72	94.81	91.80	88.23	87.74
Howrah	N.A.	N.A.	57.79	79.67	79.85	84.27	75.26	74.32	—	—	57.79	80.22	79.85	84.64	76.66	74.32
Hooghly	72.20	78.07	66.59	74.11	74.26	72.82	73.07	71.01	72.20	78.07	67.49	75.00	74.92	73.09	73.53	71.16
24-Parganas	80.60	87.43	85.77	78.37	83.56	90.89	80.84	82.53	80.59	87.43	85.77	87.36	83.66	90.98	81.02	82.53
Nadiah	54.52	44.58	67.69	64.77	74.63	60.18	53.41	47.70	55.82	47.92	70.19	66.42	75.90	62.27	57.37	49.52
Murshidabad	43.56	46.52	64.21	72.52	63.63	56.72	44.68	50.61	43.56	64.46	79.25	77.71	67.78	62.91	50.03	55.19
West Dinajpur	80.69	80.36	N.A.	82.15	81.66	71.87	75.63	75.90	80.69	81.55	—	82.64	84.78	72.20	76.37	76.96
Maldah	42.74	54.19	N.A.	67.23	67.48	53.15	54.38	54.75	63.85	69.23	—	79.10	78.57	65.75	61.37	63.13
Jalpaiguri	74.81	52.78	N.A.	66.52	63.35	62.29	63.29	62.40	75.71	53.31	—	66.81	63.85	62.76	64.21	63.70
Darjeeling	44.05	29.55	22.78	17.97	18.50	30.20	26.67	29.08	55.95	53.40	65.00	57.49	49.71	35.64	53.75	56.38
Cooch-Bihar	—	—	—	—	—	—	71.20	70.22	—	—	—	—	—	—	72.08	70.80
Purulia	44.58	67.58	78.07	—	—	—	—	88.72	52.89	74.73	84.81	—	—	—	—	90.83
West Bengal	70.00	68.71	94.48	85.36	81.15	72.41	73.64	73.38	72.05	73.15	98.09	88.82	83.58	75.79	74.93	75.49

TABLE 18

Area Under Crops as % of Area Under Total Crops (in '000 Acres)

	GRAM AND OTHER PULSES								TOTAL FOODGRAINS							
	1890-91	1900-01	'10-11	'20-21	'30-31	'40-41	'50-51	'60-61	1890-91	1900-01	'10-11	'20-21	'30-31	'40-41	'50-51	'60-61
Burdwan	10.63	6.31	5.04	4.52	3.35	4.40	4.48	6.90	86.91	87.22	88.14	91.18	91.51	89.74	94.69	94.69
Birbhum	1.36	1.09	1.37	1.27	1.79	1.98	6.34	12.51	75.34	94.25	94.77	80.74	96.27	83.05	98.16	95.20
Bankura	3.93	4.36	3.71	1.34	2.57	1.95	4.55	3.71	70.39	86.91	78.08	92.65	94.47	70.47	70.04	81.68
Midnapur	1.18	9.39	8.29	2.45	1.48	0.82	5.72	9.32	81.78	77.68	85.66	96.17	96.29	92.62	93.95	97.07
Howrah	—	—	4.56	4.40	4.48	5.24	9.41	18.58	—	—	62.36	84.07	84.33	89.89	86.06	92.91
Hooghly	16.79	5.35	1.35	1.49	1.98	5.28	8.51	10.14	88.99	83.42	68.83	76.49	76.90	78.36	82.04	81.30
24-Parganas	4.60	3.45	3.88	2.29	3.33	2.21	7.96	9.62	85.19	90.69	88.63	89.57	86.99	93.19	88.98	91.24
Nadia	11.38	26.46	11.92	17.06	7.19	19.45	24.19	32.52	67.20	67.29	82.12	83.49	83.09	81.72	81.66	81.53
Murshidabad	21.07	16.34	12.84	10.53	9.82	20.24	24.12	26.42	64.52	81.61	92.09	88.24	77.60	83.25	74.16	80.93
West Dinajpur	2.27	2.62	—	0.80	0.87	0.96	3.81	5.87	82.97	82.86	—	83.64	85.64	73.17	80.19	81.31
Maldah	18.07	3.76	—	6.21	6.39	11.23	24.25	23.58	81.93	70.43	—	85.31	84.96	76.99	85.63	84.13
Jalpaiguri	0.78	1.85	—	2.00	1.66	1.48	2.15	3.49	76.49	55.16	—	68.81	65.51	64.34	66.36	65.12
Darjeeling	36.12	4.55	2.22	2.99	1.73	1.49	7.92	9.93	92.07	57.95	67.22	60.48	51.45	37.13	61.67	63.48
Cooch-Bihar	—	—	—	—	—	—	4.19	4.53	—	—	—	—	—	—	76.27	75.18
Purulia	6.86	1.67	3.42	—	—	—	—	7.97	59.75	76.40	92.51	—	—	—	—	98.20
West Bengal	7.04	7.01	4.27	4.29	3.36	5.99	9.09	12.54	79.46	79.73	104.42	93.11	86.99	82.00	85.04	87.36

TABLE 19

Crop Area as % of Total Cropped Area in West Bengal (in '000 Acres)

	1890-91	1900-01	1910-11	1920-21	1930-31	1940-41	1950-51	1960-61
Jute	2.86	2.01	4.62	2.69	3.32	4.53	4.94	4.57
Total Oilseeds	3.14	4.21	4.18	2.24	2.32	2.70	2.62	2.26
Sugarcane	2.34	1.25	1.29	.99	.73	1.03	.40	.65
Fruits and vegetables	—	1.37	2.26	1.92	1.98	1.78	2.95	2.37

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K. SURESH SINGH

Pattern of Agricultural Changes in Tribal Chhotanagpur

It is difficult to construct the story of changes in primitive agriculture in terms of the census reports from 1871 to 1961 and to formulate a uniform and coherent pattern of its development in Chhotanagpur. Early settlement reports, which relate to the latter half of the 19th century and were limited to particular regions, do not contain more than a cursory observation on agricultural habits of village communities, nature of soil crops, prices and average produce of commodities. For want of accurate village statistics even so comprehensive a report as *Agriculture of the District of Lohardaga* (1891) did not give out areas under different crops. Most of the scheduled areas were also being formed during the period. The reports of cadastral and revisional surveys in the first three decades of the present century stand between Census reports and District Gazetteers in point of time and constitute an important source of information regarding agriculture in non-ryotwari regions. Agricultural and tenorial statistics collected by field surveys were categorised into classification of lands, crop-wise acreages, proprietary and cultivating interests, extension of cultivation, agricultural appliances such as soil, irrigation, agricultural stocks and implements, livestock and principal products and modes of cultivation. There has been no settlement operation in tribal areas under study since the thirties, and, therefore, the full impact of changes in agriculture and land organisation during intervening years have not been adequately brought out. Even so the settlement reports on Palamau relating to years 1872, 1894-97 and 1913-20 and the two settlement reports of Ranchi district (1902-10 and 1927-35) enable one to trace the main trends and directions

of agricultural development. To these materials may be added one's impression based on one's participation and observation of the changes in tribal areas, all of which have not been reflected in printed statistics.

The story of the transformation of a tribe into an agricultural community belongs to history and its strands are yet to be gathered from legends, anthropology and archaeology. There are reasons to believe that some Dravidian tribes migrated from the west to the east along the Himalayan foot-hills and from there they swung southward towards Kaimur ranges and Chhotanagpur plateau. Their migration as a food-gathering and pastoral community was determined by the compulsions of their economy and by the level of their technological development. It was in the Gangetic plains of *Karusha* that most of the Dravidian tribes, particularly the Oraons and Cheros, developed into an agricultural community; both preserved traditions of their settlement as such. They acquired familiarity with iron implements; the traditions speak of these tribes moving along the Kaimur (Rohtas) ranges into Chhotanagpur closely following the sites where iron ores occur and of their felling trees and opening up areas for cultivation with their iron-tipped implements. The Agaries and the Asurs, the traditional iron-smelters, served as the vanguards of these tribes, clearing forests, forging and furnishing iron implements. The peaceful expulsion of Kolarian tribes by more prolific Dravidian tribes could be ascribed to the superior techniques of productions practised by the latter.

A close study of the implements in use in tribal areas discloses their predominantly non-tribal nomenclature which lends support to the theory that these were acquired either in *Karusha* or Magadh or borrowed from the semi-aboriginal *Sadari*-speaking tribals who subsequently migrated to the Chhotanagpur. The epic, the Asur story, commemorates the clash between Kolarian tribe and the Asurs, and the process of the transformation of the Mundas into an agricultural community. The Mundas' victory over an iron-smelting race who were without a secure agrarian base, and the triumph of their god, the Sun, associated with agriculture, symbolised their settlement as an agricultural community. The process of Hinduisation of tribes contributed to their agricultural development. The concept of agricultural seasons or *nakshatras* has been assimilated by the Mundas into their folklores; the knowledge of implements and of crops and agricultural practices, disseminated by Hinduised Koeris, those patient and adroit cultivators who grow vegetables and valuable crops like sugarcane, and the Manjhis, a pastoral community, who live among the tribals as semi-aboriginal communities, further contributed to the process.

The difficulty in weaning away the tribals from their primitive hoe-culture or upland cultivation and the persistence of their habits as a hunter, a food-gatherer and a primitive agriculturist, was commented on by many

observers. Writing in 1872 L. R. Forbes reported :

“All the tribes in the Pargana, including Kharwars and Cheros, particularly the latter, are exceedingly indolent cultivators. They hate labour and never do more than they can possibly help. As long as there is enough food for today, they are content without making any provision for tomorrow. Except perhaps in the rice harvest, it is very rare to see the cultivators on their fields before 7 or 8 in the morning.”

Another keen observer found little improvement twenty years later and described primitive agriculture at length in 1897 :

“It will appear from the statement of population given above that the aboriginal tribes form 6.7 percent of the total population; their agricultural importance is, however, still less, as many of the tribes, like Brijeahs, Birhors, Agoreahs, Asurs, Kharwars, have not yet been weaned from their wild nomadic life. Many of these lead lives in no way removed from those of the most primitive people that we read of—living as they do entirely on wild herbs and roots and the produce of the chase—while others, equally nomadic in habit, grow a few hardy crops, like Raharm Til, Urid and Bodi etc. by a very rude system of agriculture. For this purpose they neither possess plough nor hoe, but make a small hole in the ground merely with a sharp pointed bamboo into which they drop one or two seeds. They rarely remain in the same hill for two successive seasons. The purely agricultural aboriginal tribes are the Uraons, the Mundas and the Paharias.”

“The Koeris and next to them the Rajputs are considered as the best among the cultivators of Palamau : they grow crops like sugarcane and poppy, which call heavy and strenuous labour for many months of the year. The Hinduised aboriginal tribes—the Cheros and the Kharwars—and the pure aboriginal tribes are found incapable of continued exertions, and do not possess the skill and the patience necessary to the cultivation of such valuable and paying crops as sugarcane and poppy, which require, besides continuous irrigation, hoeing and weeding, minute and intelligent attention to each individual plant. These latter people live for the most part in jungly villages, and grow such crops as are easily raised or atleast require manual labour of ordinary kind. Their favourite crops are maize and various millets, cotton, til, urid, and rahar. The cultivation of the rabi crops—wheat, barley, linseed, gram, peas etc.—is mostly confined among the Hindus; the villages inhabited by the aboriginal tribes being usually too hilly to admit of rabi cultivation. Thus while the Hindus depend for the most part upon Rabi

crops, and are busily engaged in their cultivation during the winter months, the Cheros and the Kharwars subsist mainly on the produce of the bhadai harvest, and idle away the greater part of the year in chase and other useless pursuits.

Among the aboriginal tribes the Koli (Uraons) are reputed for their diligence in all manner of earthworks, especially in the preparation of new rice lands by digging and levelling."

The most important change was the disappearance of primitive *Beora* (ploughing seeds in holes drilled with a pointed bamboo), the rapid fall in upland *Jhuming* (shifting) cultivation and settling down of tribes like Birjias, Kisans and Korwas who live on high plateaus as agricultural communities to permanent cultivation and private ownership of land. The two modes of cultivation were tribals' "organic response to certain geophysical conditions"; these were also suited to the typical tribal mode of production and its collective social organisation. In 1927-35 shifting cultivation was reported from some hilly parts of Ranchi and Palamau districts, and it was regarded as obnoxious and extremely detrimental to forest. It dried up springs in hills, caused soil erosion, affected rainfall and deprived people of the benefits of the forests and forest produce (Elwin : 63). The change-over to plough culture was facilitated by the enforcement of laws regarding protection and preservation of forests, the recognition of the advantages of settled cultivation practised by the Oraons and Mundas in the plains and the pathetic realisation of the fact that *Jhuming* was not productive above subsistence level. The Asurs stopped most of their shifting cultivation about the thirties. The Nagesias recall how agriculture came to their villages in their grand-fathers' times. Cotton cultivation by *Daha*—slash and burn method—also died out.

During the American Civil War, Bihar Cotton Road was constructed to export cotton from Palamau and Surguja, but there has been fall in the production of cotton by traditional means of *Kachhwa* and *Daha*. The first was a regular cultivation of cotton. Owing to extension of cultivation the area under cotton fell from 9,600 acres in 1872 to 1500 acres in 1906-07, 1200 acres in 1920 and less than 500 acres in 1961. Agricultural researches now reveal that Chhotanagpur uplands were suitable for cotton cultivation if they were properly limed. Cotton has, therefore, become the cash crop again reviving memories of old cotton cultivation practised only by a different technique today.

In tribal areas the extension of cultivation consisted in reclamation of uplands and waste lands, but its progress was affected by the incidence of high rent, praedial conditions and uneconomic holdings. It was, therefore,

discovered that the increase in area by 32% in case of rice land and by 5% in case of upland between 1872 and 1894 was imaginary because of the faulty system of classification of upland. In fact there was a decrease in upland cultivation following the over-assessment of rent for most of it, the formation of protected forest which threw considerable areas of upland permanently out of cultivation and the suppression of the practice of *Jhuming*. Nevertheless, during 50 years from 1862 to 1913-20 there was an extension of cultivation in the district by 50% which did not compare favourably with the trend in neighbouring districts. For instance, in the first Revenue Survey conducted by Maj. Hunter Thomson, the area of Pargana Palamau was estimated at 3650 sq. miles, of which 456 sq. miles were cultivated, 2399 sq. miles were fit for cultivation and 795 sq. miles were hilly and barren waste; during the survey of 1913-20 it was found that the total cultivated area was 964 sq. miles including a normal area of 265 sq. miles of fallow upland, 837 sq. miles were recorded as cultivable and 1672 as unfit for cultivation. As the district opened out, the area under foodgrains steadily increased from 1931 to 1961 despite a decade of scarcities and floods. A phenomenal increase in cultivation area occurred at the time of abolition of intermediary interests and the enactment of Land Reforms Act when the ex-intermediaries settled their *Bakast* and *Gairmazarua* lands on a very large scale and forests standing over a thousand sq. miles were destroyed and the lands denuded of them were brought under cultivation. Some of the settlees were intrepid Oraon and Munda *ra'iyats* from neighbouring Ranchi district.

The qualitative aspect of the traditional conversion of inferior lands into fertile lands, of uplands into paddy lands will be brought out by another settlement operation, but it is evident that the tribal practice of converting *Tanr* into paddy land which consisted of putting up bunds at suitable intervals across the slope in order to level the intervening space by gradual cultivation and of improving and developing third class upland into first or second class upland was extended. The conversion of gulleys into first-class paddy lands, and large scale soil conservation and reclamation of lands are in progress in area now covered by irrigation schemes.

A subtle change is evident in the technique of sowing and transplantation of paddy seedings. Tribal cultivation was primarily characterised by broadcasting (*chhinta*) and this practice grew out of the typical tribal organisation of the day. Sowing by broadcasting involved less capital and labour, less dependance on irrigation and rains, care and attention, fewer inputs including credit and manure and consequently less production. Sowing by transplantation practised by non-tribal cultivators in the neighbourhood was more expensive and depended wholly on the upland cultivation, and in Palamau the ratio of uplands to rice-land was 1:4. Since the mid-fifties, with easier availability of credit and inputs, knowledge of

techniques and prospect of quick and sizeable returns, a change-over to sowing by transplantation by raising seedlings in rice lands is underway. No doubt, this pattern of change is sometimes upset by crisis like scarcity and famine, as happened this year, and most of the population, both tribal and non-tribal, relapsed to the old practice of sowing by broadcasting, because they lost faith in the rain gods and were not sure of the crucial *Hathia* rains. But the shift of emphasis in tribal agriculture from broadcasting to transplantation is unmistakable.

There was little perceptible change in the use of manures and implements. Asurs, Agarias and Loharas described by Forbes (1872) and Sunder (1894) still ply their traditional trade. But they depended on the steel available in the market for manufacturing the implements. Exploitation of the surface iron ore by traditional technique was and is neither profitable nor possible, though the tribes still recalled the old practice which yielded implements more lasting and dependable than those available today which are to be changed twice during a year. No improved agricultural implements suitable for these areas have been manufactured or are in use. Introduction of iron plough culture in uplands has been disastrous: the uplands now wear a naked and barren appearance, because plough, particularly iron plough leads to erosion of the earth which rests on the rocks. The uplands can only be saved now by resorting to the old practice of terrace cultivation.

The cropping pattern has undergone a marked change: traditional short-term crops such as *Sathi* paddy, *Sawan*, *Gondi*, *Majhri* called *Bhadai* were and are being replaced by long-term crops called *Aghani*. The revisional settlement in Ranchi in 1935 revealed that with the diversification of agriculture and introduction of new crops, the area under *Bhadai* and *Gora Dhan* had decreased and there had been a corresponding increase in *Aghani* and *Tewa* area during the two Settlements. During the same period the area under oil seeds increased by 49.1%, the area under gram quintupled and that under sugarcane increased by 29.7%; wheat was up by 168.4%. Among *Bhadai* crops, maize has replaced autumn rice as the staple crop partly because it is a short-term crop, easier and more economical in labour and effort to grow on upland and partly because it is a cash crop which brings quick returns. The maize has registered an advance in acreage at the cost of autumn paddy and cotton. Maize has replaced autumn rice in the offering to ancestral spirits in rituals associated with agriculture in August-September amongst Paharias. Similarly, among the oil seeds, groundnut and *Sarso*, both cash crops, have replaced *rai*, *tori* and traditional oil crops. It is, however, the Rabi crop which registered the biggest advance in cultivation: gram became an upland crop and wheat and barley were grown by the tribals, particularly Christian tribals, on an increasingly

large scale. Tribal markets display both variety and abundance of vegetables which are transported to far-off industrial centres like Rourkela, Calcutta and Jamshedpur. Vegetables including peas, potato and rainy season potato, cauliflower, tamato, brinjals etc. and fruits such as papaya are grown on an extensive scale.

Such changes in crops and crop pattern could not have been possible without a growing appreciation of the need for artificial irrigation and its application. The tribes in Chhotanagpur did not show like the *Marias* and *Saoras* tribes a genius for constructing irrigation schemes. Till some time ago, only the Koeris irrigated the lands under vegetable and cash crops like sugarcane, by lifting water from small wells located mostly on the banks of the rivers. Now irrigation wells financed by Blocks have become popular and are the only Block schemes to be executed with expedition because of the beneficiaries' direct interest in them. *Ahars* and bunds across natural rivulets have been constructed to conserve water. The traditional *Daris* adivasis' only source of drinking water is being replaced by big-diameter irrigation and drinking water wells.

A provocative theory about instrumentality of agricultural development was developed by a Settlement Officer in Palamau in 1913. It summed up the agricultural policy pursued by the British administrators in those regions. It was contended that Chhotanagpur was suited pre-eminently to *Chhotanagpuris* (tribals) and that the real economic progress and development were to be found only in tracts occupied by aboriginals in contrast to those which have been permeated by the Hindus. The basis of this observation was the comparison of the conditions prevailing in two districts of Ranchi and Hazaribagh which demonstrated that Hazaribagh had not been marked by the same progress as Ranchi owing to the large grip of the Hindus on it. Palamau, which was characterised as the road by which the aboriginals successively reached Ranchi and Hazaribagh and where the aboriginal people had been crushed by waves of successive free-booters and invaders, was, like Hazaribagh, less developed. In the district "Hindus and Hindus' methods and standards of living had long been established", the population was "still thinner and its cultivators poorer than the aboriginal district of Ranchi". A part of the degradation of the cultivators was no doubt due to the comparatively large upland area per head of the population. This theorist did not bother to define the Hindu and the aboriginal and to mention the important and crucial role of the Koeris and Manjhis in agricultural development of Ranchi as also the primitive tool and technique of organisation which inhibited the development of primitive agriculture.

A second theory about agricultural development built up and implicitly believed in by British administrators was that development could not be made by the *ra'iyats*, and that *Thikādārs* could be employed as the only agency

available for development of the estates, extension of cultivation and the execution of small works of irrigation. The Chero Rajas in granting *Jāgīrs* to either tribal *Jāgīrdārs* or immigrant families laid down a condition about development of the areas leased out to them. The British policy of granting leases to *Thikādārs* accounted for an influx of a large number of them into Palamau and led to the depredation which led to tribal uprisings during the following period. The loss of confidence in the *Thikādārs* and belief in the need of capital was gradual, and the awakening to the disastrous consequences of the system was caused by the revealing reports about the exorbitant rates of interest and the growing impoverishment of the peasantry. Forbes made a bold suggestion about the abolition of the *Thikādārī* system altogether with the introduction of the Khas management all over the district. The proposal failed in 1868, but was subsequently adopted in 1896. There was a complete unanimity in condemning the *Thikādārs*, because it was found that, with a very few exceptions improvements were made by them only when they saw an opportunity of securing a large and immediate return for their outlay. Any meritorious work of improvement for general purpose was unthinkable. It was found that the registered improvements were confined to 90 villages out of 317 in the government estates, and there were loudest complaints by the *ra'iyats* against the *Thikādārs*. But from the landlords' point of view, the *Thikādārs* spared them the bother of looking after their *zamīndārīs*: they appreciated their best to get in *ra'iyats* and to prevail upon them to settle in the villages, thus bringing the waste land of the village under cultivation.

The passage of agrarian legislations from the middle of the 19th century in the wake of tribal uprisings laid the foundation of security and development of tribal communities. The missionaries introduced new techniques of production and set up cooperative societies which furnished credit on quick and easy terms. After independence, the welfare, community development and tribal development programmes, through their ground-level organisation and extension programme, have set in motion forces which give a new shape to tribal agriculture.

CONCLUSION

The emerging trends in tribal agriculture, therefore, could be described in terms of extension of cultivation and land use, changing crops and crop pattern, new techniques and organisation of production, and these trends continue into the sixties. There has been, however, no corresponding increase in out-put or productivity over the last 50 years except in small areas. A tribal agricultural organisation was and still predominantly is deficient in capital and labour organization and technique of production; its level of aspiration is low. But in areas adjoining centres of developing

industries primitive agriculture has started since the mid-fifties responding to the challenge of development and industrialisation. Capital is being provided by cooperative societies, and the distribution of cooperative credit has gone up over the years. The institution of mutual benefit and partnership, *Pesrar*, which consisted in borrowing a plough or yoke or labourers on a mutually beneficial term, is breaking down, instead, the tribal is adopting the practice of paying the labourers their wages in cash, a practice which is part of monetisation of tribal economy. A tribal is also becoming more and more conscious of the value of his land which now brings him quicker returns than in the past. Agriculture in tribal areas particularly bordering on urban and industrial areas, is changing as everything else in the tribal world. Agriculture is ceasing to be a part of subsistence economy; it is becoming a business, and some tribals have started looking on it as such. What retards a tribal's full involvement in agricultural development is his continuing insecurity, the alienation of his land and his indebtedness, despite all protective clauses of agrarian legislations. As early as 1920 it was suggested that the only remedy to improve the state of agriculture was firm application of the tenancy law so as to secure *ra'iyats'* holding without exposure to arbitrary enhancement; forty years later there is still a need for a more radical conception and execution of tenancy laws in tribal areas.

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Change in Manufacturing Industries

DURGAPRASAD BHATTACHARYA*

Concentration of Economic Power in Manufacturing Sector

IN the last 17 years of planning in India, there occurred concentration of economic power from the lowest administrative unit, i. e., from the village to the giant corporate sector. Organised Indian capital was invested mainly in trade in pre-British days. This trade linked the village manufactures organised as private enterprise or caste-guilds with urban centres and foreign markets. The ruin of this net-work of indigenous productive enterprises in the late 18th and early 19th centuries resulted in surpluses accumulated in the hand of traders without any field to invest. The land policy of the East India Company was able to divert this surplus largely to land. Barring few pioneers, the Indian entrepreneurs were absent from the scene of enterprise upto 1870's. Dwarakanath Tagore and others known for their enterprise in banking, tea and mining were essentially new class of landlords. In this connection, Dwarakanath's letter to his son may be mentioned.

Indian 'big business' were no entrepreneurs in 'manufacturing sectors'. Along with trade, usury on a large scale also helped them to accumulate surpluses. During the eighteenth century (and surely also during earlier period), there was a massive flow of bullion in India. The following table shows the percentage share of bullion in the exports of the East India Company from England to Bengal.

The change from 1757 is due to obvious reasons known to every student of Indian history.

*The author is deely indebted to Sm. Anima Bhattacharya for her help at Simla in preparing the original draft of this paper.

TABLE 1

Share of Bullion in Total Exports by the E. I. C. to Bengal

Years	P. C. of bullion
1	2
1721—30	83
1731—40	66
1741—50	75
1751—56	67
1757—65	nil

SCOPE OF THE PAPER

The present paper is practically a summary of the works of authors in the field. No original investigation on the subject was carried out. The author, therefore, has no methodology of his own. Shri Asoka Mehta based his study mainly on concentration of directorship. The Company Law Administration of the Government of India conducted their study on a similar line. Professor R. K. Hazari "examines business groups individually and in the aggregate. It measures the proportion of corporate private assets controlled by twenty large and medium size groups in 1951 and 1958. Each group is studied from the stand point of its origin, composition, financial structure, pattern of ownership of share capital and investment by controlling interest". Dr. M. M. Mehta studied managerial concentration in individual industries, multiple directorship and inter-locutory directorship, financial concentration. Dr. S. R. Mohnot's study is a statistical survey of "concentration and diffusion of economic powers in India". Dr. Shiva Chandra Jha very ably dealt with the historical growth of concentration while surveying the development of Indian Capitalism. Dr. Gyan Chand's analysis of the trends of concentration is illuminating. Professor P. C. Mahalanobis is still working on the final report of the Income Distribution Committee. His first report reveals glaring instances of economic inequality. Shri Ajit Ray worked on the subject. The present paper summarises and mentions some of the findings of the above studies.

GROWTH OF MANUFACTURING SECTOR

It was only after 1850's and specially aided by the cotton boom of 1860's

that the indigenous entrepreneurship started making the way. Railways extended, jute, cotton, mining and plantations were making progress. The following table shows the growth of jute, cotton and coal between 1879-80 and 1914-18.

TABLE 2

Progress of Cotton, Jute, Coal

	1879-80	1913-14
(1)	(2)	(3)
<i>Cotton</i>		
Number of mills	58.00	264.00
Employment (000)	39.54	260.85
Looms (000)	13.30	96.69
Spindle (000)	1407.83	6620.58
<i>Jute</i>		
Number of mills	22.00	64.00
Employment (000)	27.49	216.29
Looms (000)	4.95	36.05
Spindle (000)	70.84	744.29
<i>Coal</i>		
Employment (000)	22.75	161.36
Output (tons 000)	1294.22	15,738.15

It is significant that by the year 1900 India became a great exporter of rice, wheat, cotton, jute, tea and oilseeds and importer of British manufactured goods. British investment in modern industries of India was confined exclusively to railways, coal mines, jute mills, tea, coffee and sugar plantations. By 1914 cotton spindles more than doubled, cotton power looms quadrupled, jute looms increased 4½ times, and coal raising six times compared to 1890, while extension of railways continued at the rate of about 800 miles per annum. The average daily number employed in factories increased from 3.16 lakh in 1892 to 9.51 lakh by 1914. It is around four million by 1961, in Indian Union only.

MANAGING AGENCY

The managing agents did undertake the operation of the firms in all its aspects on a certain amount of remuneration plus commission on sale, output or profits. Indian managing agents, constituted on a hereditary basis, entered into the field gradually and accentuated the process of concentration. The following table shows the concentration of economic power in the hands of the managing agents between 1911-1931.

TABLE 3

Trends of Managerial Integration

Name of managing agents	No. of companies	
	1911	1931
(1)	(2)	(3)
Andrew Yule	32	50
McLeod	11	18
Martin	11	27
Bird	20	15
Duncan	13	23
Gillanders	4	17
Arbuthnat Williamson	4	17
Mager	11	15
Tata	6	12
Birla	—	3
Total	112	197

The above table shows that ten managing agents controlled 112 companies in the year 1911 against 197 in the year 1931. Tata controlled only 6 companies in 1911 against 12 in 1931. The interest of these agents was concentrated in jute, coal, tea and cotton.

MULTIPLE DIRECTORSHIP AND OTHER COMBINATION

The vice of multiple directorship is too well-known as a form of control and too elaborately discussed. A case was revealed before the Tariff Board

in 1932 that a single director worked on 65 concerns, another in 42 and a third in 34. Shri Asoka Mehta's study reveals that in 1939 there were nearly 9,000 factories in India employing 17 lakhs people. A group of Managing Agents controlled about 500 concerns with a capital of 150 crores covering almost all activities of industrial sectors. In jute 53 mills with a capital of rupees 18 crores out of 100 mills having a total of 23 crores were controlled by 17 managing agents. Four of these agents controlled 30 mills.

Of the 247 coal companies with a capital of 10.45 crores, 60 companies controlled by 18 firms had a capital of 6.38 crores. Of these sixty, 31 companies were managed by four managing agents, in other words, four controlled one-third of the total capital in the coal mining. In tea 117 companies were controlled by 17 firms, 5 of whom controlled 74 tea companies. Four firms controlled 27 of 33 minor railways of India. One-third of the cotton textile companies were in the hands of 15 firms. All the cement companies except one amalgamated into a cement company—A. C. C.—taking over business assets and liabilities of 11 cement companies. Absorption of small companies by the big, directly or indirectly, was another process of concentration, e. g., the operational control of Scindia Steam Navigation Company over four other companies.

Apart from the horizontal combination, there were other forms of Trusts. The British India Corporation formed in 1920 to take over control of seven concerns dealing in wool, cotton, leather, and engineering with a capital of 1.25 crores was managed by a single Board of Directors. 40 Trusts controlled 450 concerns with a capital of 110 crores, 30 of whom owned capital over rupees 100 lakh. The British Trusts were increasingly taking the Indians as their junior partners, e. g., Mukherji's entered into Martin and Company and Maharaja of Dwarbhansa in the B. I. C. The development of these Trusts came to fruition mainly by expansion in various fields by ploughing back huge profits earned on Indian soil.

Among the Indian Trusts, the Tatas controlled 31 concerns with interests in cotton, power, iron and steel, oil, airways, chemicals, insurance with a capital of 30 crores. 34 British Trusts controlled 400 industrial concerns with a capital of 75.50 crores and half a dozen Indian Trusts controlled 50 concerns with a capital of 37.50 crores. Martin and Company took over the control of Burn and Company. The feudal interest had a control in industrial trust in some cases, and, in some other, industrial trusts controlled real estates. The Maharaja of Gwalior subscribed to entire first debenture of the Tatas in 1870's. In these trusts few individuals occupied the position of directorship in a number of companies. 500 important industrial concerns are managed by 2,000 directors held by 850 persons, but 1,000 of these directorships were held by just 70 men, the other 1,000 being held by 780 directors, 10 men held 300 directorships averaging 30.

Sir Parshotamdas Thakurdas was the director of 51 concerns. Every Trust maintains close connection with banks and financial institutions through the device of common directors. Thus the Reserve Bank and the Imperial Bank were controlled to a great extent by these big Trustmen. A dozen individuals occupied commanding position in the industrial life of Bombay. This was the condition of insurance companies. Indian industries owe their growth to British capital and Indian cotton merchants of Bombay and Ahmedabad. Barring the entrepreneurship of the great Tata whose fortunes also developed out of trade surpluses of American Civil War's cotton boom, Abyssinian War, the Indian capital at least in the early stage, as pointed out by Daniel Thorner, was under British guardianship.

AFTER 1939

The position after 1939 worsened. According to the Census of Manufactures for the year 1946, there were 5013 companies with an invested capital of Rs. 367 crores and with an employment of 15.14 lakh hands. But Shri Asoka Mehta put the capital at 445.45 crores. His analysis was based on Stock Exchange and Investor's year books.

TABLE 4

Concentration of Control

Name of Trust	Control of number of companies	
	1939	1949
1	2	3
Andrew Yule & Co.	52	78
Bird & Co.	20	31
Martin & Burns	24	20
Mcleod & Co.	17	15
Macneill & Co.	—	18
B. I. C.	7	16
	120	178

In jute 65% of capital invested and 64% of companies were controlled by 8 managing agents. Three of them controlled 27 companies. The coal

industries were controlled by 21 managing agents, of whom 6 controlled 62 percent of capital and 56% of companies. The above table gives salient features of the process of concentration in 1939-1949.

Interests held were in jute, cotton, coal, tea, sugar, transport, engineering and miscellaneous. The sale of concerns, British or Indian, and consequential changing of hands helped the process of concentration. Out of 66 coal companies, 51 companies with 247 directorships are controlled by 28 persons, seven of whom held 64 directorships. In tea, 430 directorships are distributed among 40 individuals, five of whom held 138 directorships. In jute, 267 directorships are in the hands of 130 persons, of whom 4 hold 82 directorships.

In the joint stock companies analysed by Shri Asoka Mehta, there are 3,728 directorships distributed among 1,013 persons. The directorships are *equally* distributed between 932 small fry and 81 influential men, 8 percent of the former 932 persons hold 1885 directorships, on the other hand, out of the rest 81, 61 control 1038 directorships, and the rest 20 hold 805 directorships averaging 40. The top 2% hold 22 percent of directorships. The above is practically a reproduction of some of the findings by Shri Asoka Mehta.

POSITION IN 1950 AND AFTER

Shri R. C. Nigam and Shri N. C. Chaudhuri of the Company Law Administration presented a table indicating the size of the corporate sector in India.

1. Total number of Joint Stock Companies at work (1960)	26,921
2. Total paid up capital investment in 1960 (in Rs. crores)	1,593
3. Total number of share holders (1957)	450,000
	to
	500,000
4. Total sales or main income of companies in 1957 (in Rs. crores)	3,700
5. Total assets (net of depreciation) of the companies in 1957 (in Rs. crores)	3,650
6. Share of companies in net domestic output in 1957 (in Rs. crores)	
(a) Total net domestic output	11,360
(b) Output of companies	1,300
(c) Share of companies (P. C.)	11

7. Share of companies in factory output (30 industries: 1956 in Rs. crores)	
(a) Total output of all factories	1,104
(b) Output of company owned factories	922
(c) Share of company owned factories (P. C.)	92
8. Share of companies in the productive capital of factories (30 industries: 1956 in Rs. crores)	
(a) Total productive capital	469
(b) Productive capital of company owned factories	428
(c) Share of company owned factories (P. C.)	91

The above statement reveals some aspects of the position of the corporate sector in the national economy. An all-India survey of Company directorships pertaining to 331 big and giant-sized companies out of 345 companies of such size reported to be in existence in the year 1956-57 was conducted by Nigam and Chaudhuri. These companies accounted for 60 percent of paid up capital of all companies at work in the country in 1956-57. The study revealed that of 1502 directors, 26.6 percent held single directorship, 53.2 percent held two to ten directorships, 14.4 percent 11 to 20 directorships, and 5.5 percent held more than 20 directorships. Again, "out of the foreign directors, 63 percent held more than one directorship and the proportion of foreigners holding more than 10 directorships worked out to 21 percent. As against this, 77 percent of Indian directors were found to be holding more than one directorships. The proportion of Indian directors holding more than 10 directorships was 20 percent. The proportion of Indian directors holding between two and ten directorships came to 57 percent as against corresponding figure of 42 percent in respect of foreign directors. Indian directors holding single directorship accounted for 3.6 percent of total directorship whereas the corresponding figures of foreign directors was 5.9 percent".

Nigam and Chaudhuri mentioned Professor P. S. Lokanathan's findings for the year 1949-50: it revealed that about 100 persons held as many as 1700 directorships of important concerns and of these 30 persons among themselves held as many as 860 directorships, that is to say, on an average, 29 directorships by every person. The same study further revealed that 10 top industrialists held about 400 directorships and of these 2 persons held as many as 50 directorships each. The Bhaba Committee's findings were also similar.

MANAGING AGENTS AFTER 1950's

The managing agents ably circumvented reforms aimed at reduction of their power. Nigam and Chaudhuri's study reveals that in 1954-55, total number of managing agencies were 3944. They controlled 5505 private and public companies with a paid up capital of Rs. 456 crores out of a total of 26,625 joint stock companies with a paid up capital of 976.8 crores, i. e., managing agents controlled 48 percent of total paid up capital of joint stock companies excluding banking and insurance which according to law, cannot be managed.

They concluded to say that 17 top managing agencies controlled 359 companies with a paid up capital of Rs. 114 crores which was 25 % of capital of managed companies and 12.5 of total of corporate sector. In summary, during 1951-56, about 50 % of the total paid up capital of all joint stock companies and 54 % of all non-government companies were under the control of the managing agencies, one-fourth of which was under the control of the 17 (0.4 %) top managing agencies, among them, only two, Tata and Birla, controlled as much as the rest of the top 17 managing agencies.

Among the 557 registered tea companies in 1954 out of a total acreage of 6.72 lakh, only 1.63 lakh belong to 509 Indian controlled companies, the rest 5.09 lakh acres are owned by 148 sterling and non-Indian controlled companies. Out of total invested capital of 95 crores, 75 % is non-Indian and 25 % Indian. In the proprietary concern, out of an invested capital of Rs. 5 crores, 3.81 crores belong to the Indians.

When there was an amendment in 1956 to the effect that the management of the companies by a managing agent is not to exceed ten in number, the above-mentioned 17 top managing agents cunningly defeated the very purpose of the clause by managing more than ten companies as Secretary and Treasurer.

Prof. R. K. Hazari in his study entitled "Ownership and Control" published in the *Economic Weekly* on November 26, December 3 and 10, showed that for the year 1957-58, five groups of Tatas, Birlas and Mafatlals, Walchands and Mahindras controlled companies with total assets of Rs. 567.40 crores. Out of these 567.40 crores, the Tatas and Birlas control 461.57 crores or 82 percent, and Tata Complex alone Rs. 327.21 crores out of 567.40 crores. Taking total assets of the entire corporate sector in 1957 in India at Rs. 3,650 crores, these five bigs control 15.5 percent of the entire "corporate sector". The Birlas and Tatas control 14 percent of entire corporate sector of which the Birlas alone control 9 percent. The Birla House is No. 1 now replacing the Tatas. Professor Hazari concluded in his work on corporate sector, "This study conclusively establishes that there was an increase in the concentration of economic power in the corporate private sector between 1951 and 1958. Whether this development was for the better or

worse from the standpoint of the rate of industrial growth, efficiency and utilisation of resources, etc. cannot be established. It is quite clear, nevertheless, that, by itself, the increase in concentration was inconsistent with the Directive Principles of State Policy laid down under the Constitution and the objectives of planned development in the Second and Third Five Year Plans." On managing agency system, he said, "the managing agency system is still the predominant form of management in large public industrial companies but most other companies are under the direct management of the board of directors."

In his study Dr. Mohnot concluded that the concentration in industry did not compare unfavourably with the concentration in the productive capacity or market power. He adds further, "Thus in 1949, about 36 per cent of the workers were concentrated in 1.1 per cent of the manufacturing establishments numbering only 221. Only 2.6 per cent of the establishments accounted for more than 54 per cent of the employment. Relatively speaking, there has been an advance, however modest, in the concentration of employment control between 1929 and 1949. The concentration was further accentuated if adequate allowance was made for the divergence in the unit and managerial concentrations. Examining individual industries, we found that in the important industries, there was an absence of high concentration, examined from the standpoint of separate manufacturing units. A fair amount of concentration by management existed even in the large industries like jute and cotton textiles and sugar arranged in order. Further if the absolute type of concentration is also taken into account, concentration existed in about all industries. The concentration was generally growing between 1929 and 1959."

The opening chapter of Dr. M. M. Mehta's factual study of the combination movement in Indian industry gives the conclusion: "The most striking feature of India's industrial development has been the concentration of ownership and control in fewer hands and in fewer establishments. It is indeed interesting to observe that in the evolution of industrial organisation, our industries have followed the same pattern and reveal the strikingly similar tendencies characteristic of more industrially advanced countries. The institution of managing agency, unique in some respects, both in its form and organisation, has inevitably led to the financial, managerial and administrative integration of industrial enterprises under one common managing agency."

BANKING

According to the R. B. I. studies entitled "Trends and Progress of Banking in India", in 1959, two big banks excluding the State Bank of India, forming half percent of the universe control (Rs. 259.9 crores) 21.2 percent

of aggregate deposits (amounting to Rs. 1,230 crores) and on the other extreme, 269 non-scheduled banks forming about 75 percent of 362 Banks in India had only 3.7 percent of total deposits (Rs. 49 crores).

CONCLUSION: NON-ENTERPRISING CAPITALISM

Dr. Gyan Chand discussed the latest version of the Company Law: The basic assumption of the Company Law is that the shareholders are the masters of the entire economy. Dr. Gyan Chand pointed out that 4½ to 5 lakh of shareholders in the corporate sector in India have no power or influence to control decision or policies. The Boards of Directors are oligarchies and through the operation of managing agency they control capital resources, production or assets based upon investment of shareholders. The powers of Boards of Directors are not derived from their own insignificant investment, but from the shareholders' investment and accumulated reserves of corporate earnings. If ownership of capital is a democratic criterion of control, the corporate sector magnets in India are not in a position to exercise control. In the second plan, out of an investment of Rs. 850 crores in the private industrial sector, only Rs. 150 crores were derived from new issues, the rest 700 crores were supplied by governmental institutions, foreign capital, mostly with state guarantees, and reserves, i. e., accumulated savings. In the third plan, out of Rs. 1250 crore investment in private sector, only 24 percent were obtained by new issues and the rest from other sources.

The amendment after 1950 aimed at curbing the power of managing agents was a failure. The number of managed companies was reduced from 5000 in 1955 to 1345 in 1960 out of the total of 27,000 companies or less than 5% of the total number. The restriction of not managing more than 10 companies was circumvented by securing their appointments as Secretaries and Treasurers. In 1955 out of top 17 managing agents, except Tatas, Birlas and Karamchand Thapar all others were foreign concerns. Andrew Yule, Bird & Co., Macleod and Co., Jardine Hendersons, Shaw and Wallace made economic history of India in the 19th century and strengthened themselves after independence, particularly during the planning era. "They have now by further investments, taking dummy directors in the managing agencies and in the managed companies, by tacit or explicit alliance with big Indian Houses and subtle practice of the art of economic penetration, entrenched themselves more deeply within the economy of India, and with the growing solititude of the Indian Government for increasing the inflow of private foreign capital into India, their position has become almost unassailable".

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ARUN BOSE

Foreign-Owned and Controlled Investment in the Private Sector in India : 1919-1961

THE first serious attempt to compute the sum total of foreign private capital invested in India was made around 1909-10. This was followed by others, for the years 1929 and 1939. Shortly after independence, the Reserve Bank of India made the first *exhaustive* survey of India's foreign liabilities and assets as it stood at the end of June, 1948. Three other surveys have followed, assessing the position in December 1953, December 1955 and December 1961. Annual re-assessments seem to have been initiated in 1956, and continued up to December 1962. Very recently, quarterly survey reports seem to have been used to put together the annual figures for 1963, 1964 and 1965.

These estimates represent a very special kind of information concerning foreign investment. They represent an attempt to process all the recorded statistical facts about foreign investment in India at a particular date. So in principle at least, they provide the frame-work within which partial, illustrative material (e.g., from life-histories or case-studies of particular industries or firms, or regions) can be fitted in, tested and interpreted. They also supply a necessary complement to similarly exhaustive studies concerning the evolution of government policy, the recorded opinions of business organisations or company chairmen etc. as regards the role of foreign private investment.

In principle, they could do all this. But in actual fact—what is the worth of these statistics? Those engaged in making up these figures could no doubt throw light on this. But the Reserve Banks' figures at any rate seem to be as reliable as any statistics (and more reliable as pointers than the most 'representative' illustrative data are likely to be).

In fact, it seems to me that there is no reason at all why we should not, on the basis of these figures, make certain definite statements about the nature and role of foreign private investment in India before and after independence. Anybody challenging them will have to show that my interpretation of these figures are wrong, or that the figures themselves are spurious.

What are these statements?

The *first* statement: foreign private capital concentrated on export-oriented production before independence, and on production for the home market after independence.

The *second* statement: foreign private investment has not been helping us much (after independence) to supplement either our foreign exchange earnings from exports or our domestic savings.

The *third* statement: foreign private capital has not been integrating with Indian private capital; to the extent that it *has* been doing this, it has allowed Indian private capital to work under its control, rather than itself work under the control of Indian private capital.

These are statements about facts, on which impressions have differed. Before their implications are discussed, we have to be sure that the statements are true. But if they *are* found to be true, are the implications

TABLE 1

	1909-10 (in £ millions)
1. Railways and other transport	141.5
2. Minerals and oil	7.4
3. Tea, coffee and rubber plantations	24.2
4. Commercial and industrial	2.6
5. Banks	3.4
6. Financing, land and investment	1.8
TOTAL	180.9

Source: George Paish, "Great Britain's Capital Investments in Individual Colonial and Foreign Countries", *Journal of The Royal Statistical Society*, 1910-11, pp. 167-87, Table p. 180.

important? I think they are, but they need to be studied separately, though a few of them will be briefly mentioned as we proceed.

Table 1 reproduces estimates of foreign private investment in India and Ceylon in 1909-10, adapted from Sir George Paish's paper read at a meeting of the Royal Statistical Society.

This was the only attempt before independence at an *exhaustive* calculation of British private investments in India, from which there was a flow of investment income from India to Britain. His sources were (a) foreign investment income data submitted in British Income Tax returns, (b) balance-sheets of 3,000 to 4,000 British companies which were known to have foreign interests. Excluded from the table were (1) non-British foreign investment in India, (2) 'privately placed' investments by mercantile and banking houses or by individuals which were not recorded, (3) investments under shipping and insurance by British companies centred in London but with world-wide interests, (4) investments by foreigners in India which did not appear in British Income-Tax returns or in the company balance-sheets scrutinised.

Whether the omissions in Paish's estimates distorted, seriously, the 1909-10 position or not, by 1929 it was clear that other sources would have to be drawn upon, and *interpretation* of recorded information had become unavoidable because it did not give all the details required.

Table 2 presents three sets of figures for 1929 quoted in the course of a controversy in the pages of the *Economic Journal*.

TABLE 2

	1929 (in £ millions)		
	1	2	3
1. Investment in companies registered in India	100	0	42.5
2. Investment in companies operating in India but registered outside	200	101.2	167.7
3. Other investment . . . of which :			
(1) A share of total working capital of banks, insurance companies etc. doing business mainly elsewhere than in India	N.A.	30.0	34.6
(2) Allowance for investments in private partnerships, firms etc.	N.A.	19.0	15.0

	1	2	3
(3) Other miscellaneous items, including foreign ownership of landed estates not counted above	N.A.	0	25.1
Sub-Total	140	49.0	74.7
GRAND TOTAL	440	150.2	284.9

Sources: Col. 1: G. D. Birla, "Notes on the General Situation in India", *Economic Journal*, September 1932, pp. 485-9.

Col. 2: Findlay Shirras, "The Situation in India—A Rejoinder", *Economic Journal*, December 1932, pp. 571-82.

Col. 3: V. K. R. V. Rao, "The Indian Balance of Trade", *Economic Journal*, March 1933, pp. 169-72.

These were highly impressionistic figures, making a doctored use of published information concerning joint stock companies in England and India. Foreign ownership of shares in the 'Rupee companies' registered in India was taken into account in columns 1 and 3 on the ground that such holdings were no longer negligible, and impressionistic estimates were better than no estimates. The estimates in line 2 included an attempt by Birla (col. 1) and Rao (col. 3) to assess, on the basis of the nature of the activity of the enterprise, which of the 'sterling companies' in fact were likely to employ most of the capital invested in them in India.

B. R. Shenoy's estimates for 1939 (Table 3) continued the impressionistic tradition as regards the Rupee companies and investments in partnerships (lines 3 and 4 in Table 3). But the doctoring of the figures for the sterling companies was more elaborate.

TABLE 3

Foreign ownership of	1939		
	1	2	3
			(in £ millions)
1. Capital of joint stock companies working principally in India, but registered elsewhere, of which:			
(i) tea, jute, cotton, sugar, coal mining (assuming nature of business requires employment of entire capital in India)		33.53	

1	2	3
(ii) other companies (assuming, due to smallness of average capital of £ 840,000 per company, 95% of £ 42.14 million total paid-up capital invested in India is employed in India)	40.04	
Sub-Total	73.57	73.57
2. Capital of joint stock companies with only a part of their business in India, of which :		
(i) 5% of total capital in insurance	3.81	
(ii) 10% of total capital in mining	11.08	
(iii) 25% of total capital in trading and manufacturing	86.09	
(iv) 30% of total capital in navigation	10.65	
(v) varying % of total capital in banks	10.39	
Sub-Total	126.14	126.14
3. Capital of rupee companies registered in India		87.50
4. Investments in partnerships, firms and landed properties		100.00
GRAND TOTAL		387.21

In the thirties there was a widespread belief that British-held shares in Rupee companies had changed hands in a big way. But although actual surveys could have been undertaken, with the help of the stock exchanges or the increasingly anti-British provincial governments, this is not what Shenoy did to arrive at his figures for lines 3 and 4. Both were completely arbitrary figures, even though they made up nearly half the total. By contrast, the method used to doctor the sterling company figures was a shade more plausible. But in no case was any attempt made to take into account 'reserves' of various kinds which had become important by 1939, and could affect the final results. (In the case of banks, reserve funds apparently *were* taken into account, but the figures for foreign-owned banking capital were in any case arbitrarily estimated, and added up to too small a figure to matter.)

In contrast to all previous estimates, the Reserve Bank's 1948 Census of Foreign Liabilities and Assets were based on returns submitted by most of the private companies identified by the Bank as 'likely to carry foreign investment', on a voluntary basis. But there is no particular reason for thinking

that the 'identification' by the Bank left out important areas, or that voluntary response (considered adequate by the Bank) took the form of seriously falsified returns.

Three other features of the Reserve Bank's survey method deserve notice: (1) the proportion of the total capital of sterling companies (or other companies registered abroad) employed in India through their branches was identified by calculating the 'net position' of these branches by taking the difference between assets in India and liabilities to Indian residents. (2) In the case of the Indian joint stock companies, all long-term obligations (shares, debentures, loans and advances *plus reserve funds*) were taken into account in calculating the 'equity value per share', and multiplying this figure by the number of foreign-held shares, to get total foreign-owned investment in a company. (3) The survey adopted a reasonable criterion of 'foreign control' over Indian companies in which foreign-ownership of equity capital was not large enough to establish automatic control.

Table 4 indicates, on the basis of Reserve Bank data, the shifting pattern of foreign private investment in India from 1948 (just after independence) to 1961 (and 1965).

TABLE 4

(in Rs. crores)

	1948	1953	1961	1965
1	2	3	4	5
1. Plantations	52.2 (19.6%)	71.5 (18%)	102.4 (15%)	122.1 (12%)
2. Mining	11.5 (4.3%)	8.4 (2.1%)	12.4 (1.8%)	12.1 (1.2%)
3. Petroleum	22.3 (8.4%)	77.1 (19.4%)	152.5 (22.4%)	177.8 (19%)
4. Manufacturing	70.7 (26%)	124.1 (31.2%)	295.0 (43%)	458.6 (49%)
Of which :				
i. Food, beverages	10.1	31.2	36.1	35.7
ii. Textile products	28 (10%)	25.2 —	21.4 (3%)	34.4 (3.6%)
iii. Transport equipment	1.0	—	—	—
iv. Machinery & machine tools	1.2	—	—	38.7
v. Metals & Metal products	8.0 —	— —	95.0 (13%)	104.2 (11%)

	1	2	3	4	5
iv. Electrical goods and machinery		4.8	—	—	30.4
vii. Chemical and allied products		8.0	—	54.1	93.3
		—	—	(7%)	(9%)
5. Trading		43.0	27.7	29.3	33.5
		(16%)	(7%)		(3%)
6. Construction, Utilities and Transport		31.5	40.8	56.5	72.0
		(11%)	(10%)	(8%)	(7.7%)
7. Financial		15.7	19.8	17.8	38.6
8. Miscellaneous		17.7			
TOTAL—of which :		264.6	397.1	679.8	935.8
1. Foreign official capital in private sector		—	—	99.3	167.7
2. Foreign private capital in state-owned commercial establishments		—	—	—	64.9

If we take Paish's figures for 1909-10 seriously, the 1948 figures show that there was already a clear shift away from plantations and trade (mainly linked with foreign trade) to manufacturing (which now accounted for 26%

TABLE 5

	(in Rs. crores)	
	1948	% of total
1. Foreign investment in export-oriented production :		
(i) Tea	51.82	57.02
(ii) Jute manufactures	15.74	17.38
Sub-Total	67.36	74.40
2. Foreign investment in home-market-oriented production :		
(i) Cotton textiles	11.70	12.92
(ii) Iron, steel & hardware	6.52	7.20
(iii) Coal	4.94	5.45
Sub-Total	23.16	25.57

of total foreign private investment, though plantations, mining and petroleum together still accounted for a greater proportion of the total : 32.3%). The break-down of the total figure for manufacturing in 1948 in Table 4 does not help us to find a definite answer to the question whether this shift to manufacturing was a shift to production for the home market. But other figures (in Table 5 above) covering 'certain important lines of business activity' which accounted for Rs. 90 crore of total foreign private investment in manufacturing, mining and miscellaneous categories (originally estimated at Rs. 152 crore) given in the 1948 Report, can be re-grouped to throw useful light on this question.

Of course, foreign investment in petroleum has to be taken into account to correct the impression from Table 5 of a 3 : 1 bias in favour of export-oriented production. But even if we allow for this (as well as for the fact that a part of the jute manufactures and the tea output was sold in the home market), we still get a bias in favour of export-oriented production.

However, what is not at all in doubt is the fact that after 1948, there has been a decisive shift into investment for production for the home-market. We see from Table 4 that investment in plantations and trade dropped to a mere 12% and 3% by 1965. On the other hand, the share of manufacturing rises to 43% by 1961, and to nearly 50% in 1965. By 1967, metal and metal products had displaced 'Textile Products' as the leading recipient of foreign private investment within the manufacturing sector. It is also clear from Table 4 that by 1965, chemicals had emerged as a close second.

How far did this undoubted shift to manufacture for the home market reflect the eagerness of foreign private capital to participate in the process of Indian Industrialisation? Table 6 helps us to sort out an answer to this question.

TABLE 6
Inflow/Outflow of Foreign Private Investment (in Rs. Crores)

	1956	1957	1958	1959	1960	1961	1962
1	2	3	4	5	6	7	8
1. Retained earnings	19.2	9.5	9.1	14.6	14.1	15.8	7.∞
2. Cash inflow	3.1	5.8	4.8	3.3	6.2	4.0	5.0
3. Non-cash inflow	8.5	11.4	14.2	7.8	43.0	15.8	25.8
4. Gross private capital inflow (1+2+3) :	30.8	26.7	28.1	25.7	63.3	35.6	38.6
5. Capital outflow	-7.0	-6.0	-25.5	-15.5	-11.5	-7.5	-9.0
6. Net capital inflow from private sources (4-5)	23.8	20.7	2.6	10.2	51.8	28.1	29.6

	1	2	3	4	5	6	7	8
7. Gross inflow of capital via official agencies	12.1	32.9	26.4	12.6	5.2	25.1	22.8	
8. Outflow of 'official capital'		0	0	-0.2	-2.6	-6.6	-8.3	-12.1
9. Net inflow of 'official capital' (7-8)	12.1	32.9	26.2	10.0	-1.4	16.8	10.7	
10. Net inflow of capital into private sector (6+9)	35.9	53.6	28.8	20.2	50.4	44.9	40.3	
11. Net inflow in foreign currencies (10-3-1)	8.2	32.7	5.5	-2.2	-6.7	-2.5	6.7	
12. Net inflow in foreign currency neglecting inflow via official agencies (6-3-1)	-3.9	-0.2	-20.7	-12.2	-5.3	-3.5	-4.0	

It is very difficult to find any definitely rising trend in the figures for the total inflow of foreign private capital given in item 10. There has been an increase in the annual rate of total inflow in two years out of six, but a fall in four. Items 11 and 12 show that it is an illusion to think that inflow of foreign private capital has been significantly adding to our foreign exchange earnings (or foreign aid proceeds). Neglecting capital inflows routed via official agencies, private investment transactions have caused a drain of foreign exchange every year. 'Non-cash inflow' has been growing in four years out of the six. Do they in fact represent a supplement to our foreign exchange earnings from other sources? The answer cannot be given without further investigation. The bulk of foreign private investment is concentrated in branches of foreign companies.

But it does *not* follow that 'non-cash inflow' would generally imply import of raw materials or equipment at least cost to India in foreign exchange. The 'parent companies' would certainly try to maximise their world profits, but not necessarily the profits on their branches in India taken separately. Restrictions on the convertibility of the currency of the country, in which a particular investment taking the form of 'non-cash inflow' originates, could also imply import of equipment etc. at higher than the lowest world prices. Retained earnings have been positive throughout. But the annual rate has fallen in four years out of six, and over the seven years together, while the retained earnings add up to Rs. 90 crore, 'capital outflow' (leaving out outflow of 'official' capital) adds up to Rs. 82 crore. This suggests that the figures for retained earnings do not indicate increased

eagerness of foreign private investors to make long-term investments in Indian private industry.

There are no indications that foreign private capital is willing to work under the control of Indian private capital. On the contrary, its first preference is to keep foreign investments under exclusive foreign control (see the item 1, sub-totals in Table 7). Very little (negligible amounts) are invested in enterprises where there is some sharing of control (item 2 in Table 7). There is a slightly greater inclination to work under Indian control (item 4 (i) in Table 7).

TABLE 7

	(in Rs. crores)			1965
	1962	1963	1964	
1. Foreign investment under exclusive foreign control :				
(i) in Branches	293.1	270.8	266.1	268.6
(ii) in Subsidiaries	N.A.	224.0	239.9	267.2
Sub-Total	293.1	494.8	506.0	535.8
2. Other foreign investment under foreign control	274.5	53.5	65.7	77.5
3. Total foreign investment under foreign control (1 + 2) :	567.6	548.3	571.7	613.3
4. Foreign investments under private Indian control :				
(i) 'private capital direct from private sources'	57.9	122.5	137.8	154.8
(ii) private foreign capital routed through official agencies	110.0	116.1	146.7	167.7
Sub-Total	167.9	238.6	284.5	322.5

Disregarding private foreign capital routed through official agencies (and therefore protected specially by official guarantees), the ratio of private foreign capital under foreign control to foreign private capital under Indian (private) control has moved as follows :

1962.....	9.7 : 1
1963.....	4.5 : 1
1964.....	4.1 : 1
1965.....	3.9 : 1

But even with the special protection of official agencies, 'official portfolio' foreign investment added to 'private portfolio' foreign investment does not change the picture very much. The ratio of total foreign private investment under foreign control to total foreign private investment under Indian (private) control works out as follows :

1962.....	3.1 : 1
1963.....	2.3 : 1
1964.....	2.0 : 1
1965.....	1.9 : 1

PARESH CHATTOPADHYAY

State and the Economy in the Post-Independent India

By a socialist society we shall mean a society whose political power is held by the working class and its allies and which is characterised by the collective ownership of the means of production.

By a capitalist society we shall mean a society whose political power is held by the bourgeoisie and its allies and which is characterised by private property in the means of production within the system of commodity production where labour power itself is a commodity.

It is more than a decade since the famous Avadi session of the Indian National Congress declared the objective of the ruling political party of India to usher in a "socialistic pattern of society". This was to be done by the progressively greater direct participation by the State in the functioning of economy.

As regards planning and active State participation in the economy, it is no longer the monopoly of the socialist economies. It has been a familiar phenomenon even among the advanced capitalist countries for a long time.

In real life the capitalist societies have long abandoned *laissez-faire*. The capitalist economies in course of their development have given rise to monopoly and concentration. The great Depression of the 1930's and the II World War with its unprecedented necessity of mobilizing the total economy compelled an increasing intervention by the State in the economic affairs in capitalist societies. Necessities of post-war construction accentuated this process still further.

Engels, it is well known, had already predicted in his Anti-Duhring as well as in his notes on Marx's 3rd Volume of *Capital*¹ the movement of capi-

talism along this line. That is, along with the growth of concentration and monopoly in capitalism, there also arises the necessity of the State, representing the interests of the bourgeoisie as a whole, to participate actively in the economy, and undertake measures, that may, for the time being, go against the interests of particular capitalists but serve the interests of the capitalist class as a whole. This has nothing to do with socialism. This line of thought was later further developed by Lenin in his various writings, particularly in his book *Imperialism* and two pamphlets, namely, "Tax in Kind" and "On Co-operation". There he pointed out that the direct participation by the State in the economy of a country, necessitated by the exigencies of capitalist development itself, leads only to State capitalism or State monopoly capitalism. This has basically been the case with capitalism in the 20th century. This has been true to even greater degree for the under-developed countries becoming independent after the II World War. We are referring here to the countries that have, after independence, remained basically within the world capitalist system. There the exigencies of development were so urgent that the government just could not leave the whole matter in the hands of the private entrepreneurs, and that for several reasons. First, they were ill-equipped for those investments that were essential but least paying. Secondly, they lacked funds, initiative and experience. Thirdly, they were not prepared to invest in those sectors of the economy such as infra-structure that yielded poor returns. Hence, almost in all under-developed countries, government took a significant part in the functioning of the economy.

In India, planning and the institution of public sector were the results of several reasons that acted together. Here the bourgeoisie, who through the Indian National Congress led the struggle for national liberation against British Imperialism, wanted to develop their country following independent capitalist path. They were very much conscious of the economic difficulties faced by an under-developed country like India but they were specially aware that private enterprise alone could not deliver the goods. Moreover, in course of the anti-imperialist struggle the Indian bourgeoisie who were not comprador as in China, gave vent, to a large extent, to the genuine aspirations of the broad masses of the people and were allied to them. The price of this alliance was the establishment of parliamentary democracy based on universal suffrage and its economic counterpart was the "welfare state" with its inevitable concomitant in planning and in extended public sector.

That the Indian bourgeoisie opted for a large public sector in the economy is attested by Nehru's testimony in his *Discovery of India*. After noting that the big business formed the largest single group in the National Planning Committee (established by Subhaschandra in 1938) Nehru turned to

the policies that were decided to be pursued and said, "While free enterprise was not ruled out as such, its scope was severely restricted. In regard to defence industries, it was decided that they must be owned and controlled by the State. Regarding other key industries, the majority were of opinion that they should be State-controlled, but a substantial minority of the Committee considered that the State-control would be sufficient. Such control, however of these industries, had to be rigid. Public utilities, it was also decided, should be owned by some organ of the State".² That by opting for public sector in Indian economy, the Indian bourgeoisie did not want to establish socialism but was precisely wanting to see capitalism develop is further proved by the facts that the so-called Bombay Plan formulated in 1944 by J. R. D. Tata, G. D. Birla and six other big capitalists also provided for not only a large extension of State-control, but also a considerable extension of State management and ownership.

An examination of the Industrial Policy Resolutions of 1948 and 1956 shows that the Government has agreed to step in only where the private entrepreneurs for various reasons cannot do the job alone. Particularly, this is evident in the 1956 Resolution which divided industrial activity as between public and private sectors. Broadly speaking, arms and ammunition, atomic energy, heavy industries such as iron and steel, heavy castings and forgings, heavy plant and machinery, heavy electrical plants and railways are reserved for public sector. Private sector, on the other hand, covers all consumer goods such as textiles, cement, sugar, paper, jute, machine tools, industrial machinery, light engineering industries and chemicals. It is easy to see here that our private entrepreneurs were ill-suited for the industries reserved for public sector and so the state on behalf of the capitalist class as a whole had to undertake the job.

It is striking that the above Industrial Policy Resolution does not differ basically from the policy of the British Government in pre-Independent India. The Planning and Development Department that was established by the Government of India in 1944 published in 1945³ some sort of a classification of industries as follows :

- (a) About 20 major industries were brought under the control of the Central Government.
- (b) In the absence of adequate private capital, industries of national importance, namely, aircrafts, automobiles and tractors, chemicals and dyes, iron and steel, transport vehicles, machine tools, electrochemicals and non-ferrous metal industries should be under State ownership.
- (c) All other industries to be left to the private enterprise under various degrees of control.

The institution of public sector in India has tried to serve two purposes : (1) mainly to create and widen infra-structure for the development of capitalism and (2) to prevent excessive concentration and monopoly of economic power in the interests of the Indian capitalist class as a whole.

Reserving for later treatment the first point, let us note that the second point about the state intervention against excessive concentration and monopoly is not peculiar to socialism alone. It is found in all capitalist countries. Nehru himself said that "not to encourage monopoly is a common matter, common thing not confined to socialistic thought. Even modern capitalistic thought is opposed to monopoly".⁴

Needless to say that as in the advanced capitalist countries, in India too the State intervention was not meant to tackle seriously the growth of concentration of economic power. Professor Hazari in his book, *The Structure of Corporate Private Sector* (published in 1966) has shown that the concentration of economic power in the corporate sector definitely increased between 1951 and 1958. Four top groups of big business (Tata, Birla, Martin Burn and Dalmia-Sahu Jain) had 17.91% of the total share capital of non-government public companies in 1951. This proportion rose to 22.34% in 1958.

As to the first purpose of State intervention noted above, that the public sector has indeed helped the development of capitalism in India is conclusively proved by the fact of phenomenal growth of the private sector during the planning period. This growth has been mainly due to the bulk of the public sector investment being devoted to the development of social and economic overheads. In the corporate sector the paid-up capital of companies has risen from Rs. 750 crore in 1951 to 1530 crore in 1964. The index of industrial production (base 1956=100) increased to 174.6 in 1964 from 73.5 in 1951. Exports registered an upward movement from Rs. 500 crore in 1952 to 820 crore in 1965. The additional income generated in the private sector during the period 1950-1964 estimated at Rs. 6200 crore represents nearly four-fifths of the total additional income generated during the period. During 1951-1966 there has been a spectacular increase in the production under private sector as shown in the following table.

In the private industrial sector, investment in 1951 amounted to about Rs. 750 crore. In agriculture, mining, banking and trade (internal and foreign) which are mostly in private sector, the investment figures in 1951 could be roughly estimated at Rs. 10,000 crore. As compared to this, the private investment in industrial sector during the period ending 1966 totalled Rs 9,000 crore. Also, in agriculture, mining, banking and trade, the private sector investment has expanded by more than Rs. 25,000 crore. Manubhai Shah, who cites all the figures given above (*Eastern Economist*, July 21, 1967) concludes that "the figures show a phenomenal rise in private investment in 15 years of planning. It is also obvious that increase in private investment

TABLE 1

Commodities	Units	1951	1966
Cotton cloth (mills, power-looms, handlooms)	million meters	4,600	7,400
Sugar	million tons	1.1	3.5
Cement	million tons	2.7	10.8
Automobiles	numbers	16,500	71,000
Cycles	numbers	99,000	1,600,000
Sewing Machines	numbers	33,000	428,000
Raw Jute	million bales	3.3	7.0
Raw Cotton	million bales	2.9	5.4
Electric Fans	numbers	197,000	1,400,000
Aluminium	Tons	41,000	60,500

was made possible due to complementary infra-structure investment in the public sector. The private sector could not have achieved the expansion that it has but for the public sector investment in economic overheads and heavy industries”.

This development is, of course, not surprising. Even in 1956, the Government showed no consistent hostility to private sector. Some time after the passage of the 1956 Resolution, Nehru said in Lok Sabha (25-5-1956), “I have no shadow of doubt that if we say ‘lop of the private sector’ we cannot replace it adequately. We have not got the resources to replace it..... Let the state go on building up its plants and industries so far as its resources permit. Why should we fritter away our energy in pushing out somebody who is doing it in the private sector..... You must not only permit the private sector but, I say, encourage it in its own field”. Since 1956 the government has grown more and more ‘pragmatic’, to use its own expression, in its attitude to the private sector. As regards the controls over the private sector, some of them have been relaxed lately. Delicensing of certain industries and liberalized imports furnish examples of one type of relaxation. In the case of some fertiliser firms, price and distribution controls have been relaxed for the first seven years from the date of operation. Then there is the liberal interpretation of the Industrial Policy Resolution itself. For example, the Third Five Year Plan document while saying “The expansion of industries will continue to be governed by the Industrial Policy Resolution of 1956” immediately tries to water it down,

“as in the Second Plan the roles of the public and private sector are conceived as supplementary and complementary to one another. For example, in the case of nitrogenous fertilizers where the public sector has already assumed dominant role, it is envisaged that during the Third Plan the private sector will enter the field in a bigger way than in the past..... In the case of pig iron, policy has been relaxed to allow the establishment of plants in the private sector with a maximum capacity of 100,000 tons per year as compared to units of 15,000 tons permitted so far. Programmes for the manufacture of dye-stuffs, plastics and drugs in the private sector will be largely complementary to the programme for the manufacture of primary aromatic compounds as by-products at the steel works and of organic intermediates to be undertaken in the public sector”. It is also significant that at the time of the publication of the Third Plan in August 1961, Karamchand Thaper, President of the F. I. C. C. I., remarks that its allocation of resources between public and private sector was “broadly similar” to that proposed by the Federation itself. No wonder that Taya Zenkin notes “the extraordinary vigour of the public sector” as “a very hopeful sign that India is developing in the right direction”.⁵

That the State intervention in India is perfectly compatible with capitalist structure is also indirectly shown by a look at the real extent of the public sector in India as compared with that in some advanced capitalist countries.

TABLE 2

Government's Share in 1964		
	In gross national expenditure (percentage)	In gross capital formation (percentage)
U. S. A.	21.4	2.9
Japan	20.7	11.1
Sweden	27.9	9.5
U. K.	24.6	7.9
India	17.0	10.0

In his latest book, *The New Industrial State* (1967), Prof. J. K. Galbraith, former American Ambassador to India, rightly says, “In the presumptively capitalist economy of the United States, one is charmed to reflect, the state

plays a very much larger role in almost every facet of economic activity than it does in the avowedly planned and socialist economy of, say, India".⁶

NOTES AND REFERENCES

1. Cf. Chapter 27.
2. Jawaharlal Nehru, *Discovery of India*, Maridian Books Ltd., IV ed., p. 404.
3. The only difference between the Industrial Policy Resolution of 1956 and the 1945 Declaration on the policy of the British Government is that while the latter never pretends to establish a socialistic society, the former says in its preamble that "This policy must be governed by the objectives of socialism. This declaration is effectively denied even in the operative part of the Resolution. For example, with reference to the industries listed under the public sector, the Resolution says, "this does not preclude the extension of the private-owned units or the possibility of the state securing cooperation of private enterprise in the establishment of new units when national interests so required". With regard to the second category of industries expected to be progressively State-owned, the Resolution says "private enterprise will also have the opportunity to develop in the field either of its own or with state participation".
4. Address at the 33rd Annual Session of the Federation of Indian Chambers of Commerce and Industry, 1960.
5. *India*, p. 192.
6. From the condensed version given by Professor Galbraith himself in American monthly, *Atlantic*, April, 1967.

K. MUKERJI*

Progress of the Cotton Textile Industry in India: 1948-1961

THE cotton textile industry is the oldest and one of the most well established industries in India. It is certainly the most important in the country today when considered either from the stand points of employment or value of output. One would have expected, under these circumstances that the economic condition of the industry would be very well known, at least, in the aggregate. It is only when an effort is made to assemble the necessary information that it becomes apparent how little is really known about the industry as such. In retrospect, it seems that the lack of precise information, must in part be attributed to the policy makers' and the economists' failure to demand more and precise information. Apart from the fact that it is a major industry, the cotton textile industry has been required to furnish special information from at least 1926 onwards, and has been doing so until the advent of the CMI and ASI surveys.

The overall dimensions of the basic magnitudes relating to the cotton textile industry in India from 1948 through 1961 as given in Tables 1 and 2 are straight forward and simple. It is, however, necessary to note that the figures as given in those tables relate to the entire cotton textile industry and not to selected parts thereof. As such these figures do not tally with any published figures from government or other sources. The difference as also the manner in which the figures for the aggregate level of activities have been arrived at would become clear, if the available source material is examined

*Much of the calculations on which the paper is based were done while I was in the Gokhale Institute of Politics and Economics, Poona, and they would not have been done but for Hemlata Rairikar to whom I am very greatly in debt.

with some care.

The principal source of detailed information relating to the major industries from 1959 onwards is the Annual Survey of Industries (ASI). The ASI, however, collects information from all industrial units with hundred or more workers. In respect of cotton textile industry, the entire output produced by units smaller than these are, therefore, left out from the ASI surveys. Prior to 1959 the detailed and continuous survey of 29 major industries including cotton textile industry was undertaken by the Census of Manufacturing Industries (CMI). The period covered by CMI is 1946 through 1958. Since the present study takes the first complete post-independence year, that is 1948, as the starting point, the entire period is covered by the CMI. The CMI coverage though wider than ASI is, nevertheless limited. The domain for both is restricted to factories as defined by the Factories Act. But the CMI had restricted itself to units with 50 or more workers.

From the returns under the Factories Act it is possible to find out the number of factories and the average number of workers employed by them. This is possible to do by categories. Therefore, it is possible to find out how many cotton textile factories involving how many workers, in terms of average annual employment, are left out from the CMI and ASI respectively. There are, however, two limitations. In the first place the Factories Act was not simultaneously extended to all parts of the present Indian Union territories, especially such areas as Jammu and Kashmir and similar others. Secondly, non-factory units with less than 50 employees are not checked out by this technique. These two limitations apply to the CMI and ASI statistics as well. Nevertheless, one step follows directly. The ASI figures can be blown up to cover either CMI numbers or CMI employment at the first round.

There are two other major sources of data. The first is the Director General of Technical Development (DGTD). The index number of industrial production series as published in the *Monthly Abstract of Statistic* and the *Statistical Abstract* as also the sectoral national income figures published by the Central Statistical Organization are known to be based on the DGTD figures. These figures have the advantage of having the least time lag. On the other hand they are not adequately detailed and often relate to the principal products only, without any reference to subsidiary products, which are very substantial in some industries. Of late, it has, however, been noticed that the DGTD data is extremely scrappy and that comparison of results between DGTD data and CMI leads to conflicting situations. There is very little doubt that it is the DGTD data that is suspect.

So far as the cotton textile industry is concerned the information available via the office of the Textile Commissioner's Office (TCO) is, however,

very much more reliable and encompassing than the DGTD data. Since the Textile Commissioner's Office is not affected by any limitation in respect of area of operation and as it is ultimately concerned with keeping a track of the entire available cotton that goes into textile production, the coverage of TCO's output figures is about as complete as can be desired. What makes the matter even more satisfactory is that the TCO cotton use figures in respect of the textile industry can be checked against the East India Cotton Association cotton figures for the same end use.

What has been done in Tables 1 and 2 is simply to blow up the figures in two stages to make the ASI and CMI figures correspond to TCO's output figures. The procedure is not entirely satisfactory but is certainly better than working on the basis of uncorrected figures. The obvious limitation is that the procedure ascribes the same ratios to the uncovered parts as are available for the covered parts. In other words, the technology of the large scale and comparatively more viable sector is ascribed to the small scale and comparatively less viable sector. On purely *a priori* basis this is, therefore, likely to under-estimate the labour force and over-estimate the capital if the blowing up was done on output or number of unit basis. Since the blowing up can, however, be done on the employment basis, the only misgivings would be about capital and productivity.

The analytical figures as presented in Table 3 through 7 are self explanatory, provided the initial dimensions are clear. The only figures that require clarification are taken up seriatim in what follows. In the first place, it is necessary to note that it is possible to construct an implied price series both for cotton and cotton textiles from the CMI-ASI sequence by comparing the physical volume and value series. Deflations attempted in Table 3 are based on such implicit CMI/ASI prices. If the prices from the Economic Advisors' Wholesale Price Series is used it leads to slightly different but consistent results. The derived deflation in column 7 of Table 3 has, however, been done by the All India Working Class Consumers' Price Index Number as published by the Labour Bureau of the Government of India. In respect of cotton textile wages, it is possible to select only the major textile centres and reweigh them on the basis of the number of textile workers in those centres. This has, however, not been attempted. Exercise carried out indicates that it will not make significant difference, were it attempted.

The other comparatively more important part of analysis attempted in the paper is presented in Table 5. Figures in column 2 of Table 5 represent cost per yard of cloth produced. This is derived by dividing the value of cloth produced by the yards produced. The procedure raises two problems. The first is the fundamental question of method of valuation used in CMI/ASI. The second concerns the question of production of yarn as an end.

product. In order to keep the global dimensions intact, yarn produced has been converted into cloth by using a constant multiple. This, however, exaggerates the unit cost of production, perhaps only slightly on the whole, as the subsidiary costs in mills concerned with yarn production are low. This becomes quite clear when the cost of production per yard of cloth of the southern yarn producing mills is compared with the composite mills, on a state by state basis.

Apart from the problem arising out of the fact that the objectivity of the ASI/CMI output valuation procedure is unknown and suspect, the temporal comparability of the cost per yard of cloth produced as a measure of efficiency of the productive machinery is subject to a closer study of the problem of quality change over time. If over the years finer varieties are being produced then the unit cost would be expected to be higher and no direct temporal comparison would be possible. The problem has many facets. The only one that can be handled in terms of the available data is the question of fineness. On the basis of certain 1963 mark up worked out by the TCO it is possible to work out some value weights for yarn of different counts.¹ The reciprocal of the ratio between the actual poundage of yarn of different counts produced and a value weighted average can be used to build up an index of fineness. Such an index is worked out and presented in column 4 of Table 7.

Since the change in the quality of cloth from 1951 through 1965 as measured by fineness appears to have been only marginal, the cost per yard series can be more or less directly interpreted. In this connection it is desirable to examine the cost per yard series presented in column 7 of Table 7. The series is derived by pooling all the textile prices that go into the Economic Advisers' Wholesale Price Index Number Series, and weighing them with the 1951 production figures of the cloth items covered and then using the index number series to produce the annual per yard price. It is clear that the series indicates much lower price per yard than is available from the ASI/CMI series. The very large difference raises several issues. In the first place the ASI/CMI unit cost may be regarded as too high, at least, from the standpoint of discovering cost of production of cloth alone. If that is not a fact then the Economic Advisers price collection and/or variety choice must be accepted as faulty, in the sense that excessive weight is given therein to low priced items without due regard to the actual pattern of production.

The other important point is about the degree of capitalization and cost of capital consumption. The direct figures from CMI/ASI obviously represent nothing that can be meaningfully interpreted in economic terms. This is so because, the earlier values of capital, retained in the books on the basis of pre-war entries, were obviously too low. A percentage allocation of this for

depreciation or capital consumption would be too low in terms of current value of output. The capital consumption figures are, therefore, not objective. In the absence of an index number of capital goods prices no simple remedy seems to be available. A deflation by wholesale price index number leads to too low a capitalization for obvious reasons. A physical index number in terms of looms and spindles is better, but does not take care either of higher productivity of new machines or of other machinery known to be increasingly in use. Alternatively, in terms of numbers, it overvalues the old looms and spindles. A new capitalization index may be made up by a money index with the year by year additions deflated by price index and then reversed and a physical index based on looms and spindles alone. A modified capital consumption series derived therefrom is presented in column 4 of Table 6. The series is comparable with column 3 of Table 5.

The outcome is one of slow growth without any major structural changes in the cotton textile industry considered as a whole during the period under reference. The steadiness of real wages and wages in proportion to total value of production are rather interesting. But the very low proportion of value added and value added per worker, not only when compared to textile industries abroad, but to textile industry in England during the last quarter of the eighteenth century is very striking.² The entrepreneurs in cotton textile industry in India today are obviously working with much less elbow room than the Manchester producers were doing, but that cannot be attributed to low labour productivity alone. What is, however, even more significant as a conclusion is that so very little is known about so important an industry, and an industry that is supposed to be in trouble today.

TABLE 1

Capital Employed, Number of Workers, Physical Output, Value of Output and Value Added by Production in Cotton Textile Industry in India: 1948-61

Year	Capital Rs. crores	Number of workers lakhs	Physical output crores of Yards	Value of output Rs. crores	Value added by production Rs. crores	Wages and salaries Rs. crores
1948	56.51	8.33	439.31	410.84	188.49	96.77
1949	63.61	7.92	380.58	382.49	137.55	99.46
1950	74.05	7.27	361.42	358.16	117.56	87.22
1951	80.29	7.55	418.80	507.26	164.27	98.85
1952	83.05	7.45	449.31	450.51	129.49	102.04
1953	94.29	7.86	490.48	449.20	151.52	112.06
1954	100.36	8.09	506.32	481.94	161.95	114.08
1955	106.24	8.04	509.43	485.96	176.51	113.62
1956	121.85	8.63	530.65	535.70	190.42	129.12
1957	144.12	8.61	531.74	538.25	168.12	137.76
1958	163.86	8.26	492.66	526.73	170.34	131.27
1959	170.62	8.42	492.56	553.64	186.68	142.30
1960	172.70	8.37	461.78	657.76	226.12	156.04
1961	193.16	8.52	470.16	725.28	251.49	165.45

TABLE 2
Some Basic Measures of Efficiency in Cotton Textile Industry in India: 1948-61

Year	Capital per worker Rs.	Wages & salaries per worker Rs. per annum	Physical output per worker Yards per annum	Value of output per worker Rs. per year	Value added per worker Rs. per year	Capital per unit of physical output and value added	
						(a) Rs.	(b) Rs.
1948	678.29	1161.52	5272.82	4931.11	2262.26	0.13	0.30
1949	802.63	1254.89	4801.66	4825.80	1735.42	0.17	0.46
1950	1018.61	1199.86	4971.81	4926.91	1617.14	0.20	0.63
1951	1064.04	1309.96	5550.07	6722.33	2176.98	0.19	0.49
1952	1114.50	1369.37	6029.28	6042.63	1737.71	0.18	0.64
1953	1198.99	1424.98	6238.05	5711.90	1925.41	0.19	0.62
1954	1241.28	1410.97	6262.18	5960.72	2002.96	0.20	0.62
1955	1320.85	1412.26	6333.57	6041.77	2194.49	0.21	0.60
1956	1412.41	1696.70	6150.83	6209.33	2207.25	0.23	0.64
1957	1674.77	1600.70	6178.80	6254.49	1953.56	0.27	0.86
1958	1981.74	1586.67	5958.44	6370.58	2060.19	0.33	0.96
1959	2025.39	1689.19	5845.99	6571.79	2215.95	0.35	0.91
1960	2062.42	1863.47	5514.61	7854.98	2700.43	0.37	0.76
1961	2266.95	1941.72	5517.61	8511.96	2951.58	0.41	0.77

TABLE 3

Deflated Value of Output per Worker and Profit Margin in Cotton Textile Industry in India: 1948-61

Year	Value of output per worker	Value added per worker	Residual value	Depreciation (at 6 percent of fixed capital) per worker	Margin per worker	Wages and salaries
	Rs.	Rs.	Rs.		Rs.	Rs. per year
1948	4931.11	2262.26	1100.74	10.70	1060.00	1161.52
1949	4533.39	1613.89	395.32	48.15	347.17	1218.57
1950	4671.38	1519.15	392.00	61.12	330.88	1127.15
1951	5166.65	1673.18	462.61	63.84	398.77	1210.57
1952	5619.48	1616.02	393.80	66.87	256.93	1292.22
1953	5837.40	1967.21	695.91	71.94	587.97	1307.80
1954	5835.26	1960.80	600.57	74.48	526.09	1360.23
1955	5914.60	2148.30	714.68	79.25	635.43	1433.62
1956	5774.50	2052.68	669.54	84.74	584.80	1383.14
1957	5759.19	1798.85	396.88	100.49	296.39	1401.97
1958	5589.20	1807.50	477.80	118.90	358.90	1329.70
1959	5456.93	1840.03	484.67	121.52	363.15	1355.36
1960	5144.39	1768.57	308.29	123.74	184.55	1460.28
1961	5140.38	1786.46	287.11	136.02	151.09	1495.35

TABLE 4

Share of Different Factors in Value of Output in Cotton Textile Industries in India: 1948-61

Year	Share of raw cotton (basic raw material) percent	Share of value added by production percent	Share of depreciation percent	Share of salaries of wages percent	Share of miscellaneous item percent	Total
1948	39.69	60.31	0.85	23.55	35.91	100.00
1949	48.99	51.01	1.04	26.00	23.97	100.00
1950	51.59	48.41	1.24	24.35	22.81	100.00
1951	52.25	47.75	0.95	19.49	27.31	100.00
1952	54.41	45.59	1.11	22.66	22.82	100.00
1953	47.94	52.06	1.27	24.95	25.84	100.00
1954	47.74	52.26	1.26	23.67	27.33	100.00
1955	43.86	56.14	1.33	23.38	31.43	100.00
1956	44.63	55.37	1.39	24.10	29.88	100.00
1957	47.32	52.68	1.65	25.04	25.99	100.00
1958	44.68	55.32	1.94	24.92	28.46	100.00
1959	42.91	57.09	2.54	25.70	28.85	100.00
1960	42.48	57.52	3.02	23.72	30.78	100.00
1961	41.20	58.80	3.15	22.81	32.84	100.00

TABLE 5
Cost Composition of Average Output in Indian Cotton Textile Industry: 1948-1961

Year	Value per Yard	Depreciation per Yard	Wages and salaries per Yard	Basic raw material per Yard	Miscellaneous per Yard	Value per Yard
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1948	0.93	0.007	0.23	0.34	0.34	0.57
1949	1.00	0.010	0.26	0.49	0.24	0.50
1950	0.99	0.012	0.25	0.51	0.22	0.49
1951	1.21	0.011	0.23	0.63	0.33	0.56
1952	1.00	0.011	0.22	0.55	0.21	0.57
1953	0.91	0.011	0.22	0.44	0.23	0.60
1954	0.95	0.012	0.22	0.45	0.27	0.62
1955	0.95	0.012	0.24	0.42	0.29	0.61
1956	1.00	0.014	0.25	0.45	0.30	0.51
1957	1.01	0.016	0.26	0.47	0.26	0.63
1958	1.06	0.020	0.27	0.47	0.30	0.70
1959	1.12	0.028	0.28	0.48	0.32	0.66
1960	1.42	0.042	0.33	0.61	0.43	0.82
1961	1.54	0.048	0.35	0.64	0.50	0.83

TABLE 6

Derivation of Real Value of Depreciation per Yard in Cotton Manufactures

Year	Index number of real capitalisation	Index number of capitalisation	Real value of depreciation per Yard
			Rs.
1948	100.00	100.00	0.024
1949	106.04	115.07	0.029
1950	112.36	134.90	0.029
1951	107.23	144.28	0.033
1952	135.80	156.62	0.028
1953	132.41	170.27	0.031
1954	114.20	184.11	0.031
1955	165.46	200.88	2.029
1956	190.66	226.87	0.029
1957	175.33	270.58	0.037
1958	181.05	289.96	0.039
1959	187.97	320.32	0.041
1960	176.31	321.90	0.044
1961	192.51	381.62	0.044

TABLE 7

Degree of Quality Change in Cotton Textile Output in India: 1951-65

Year	Total physical production in million pounds	Total weighted physical production in million pounds	Index of fineness 1965=100
1951	49.29	30.20	98.9
1952	54.78	31.25	92.0
1953	56.90	34.34	97.4
1954	59.00	34.41	94.1
1955	61.63	35.45	92.8
1956	63.17	36.21	92.5
1957	67.29	37.89	90.9
1958	63.71	36.49	92.4
1959	65.12	37.93	94.0
1960	65.66	39.77	97.7
1961	71.86	42.67	95.8
1962	71.63	43.53	97.6
1963	74.38	44.99	97.6
1964	80.40	48.83	97.8
1965	78.27	48.50	100.0

NOTES AND REFERENCES

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Trends in National Income

MURARI GHOSH

Development of the Drain Theory by Dadabhai Naoroji and Romesh Dutt

THE last quarter of the nineteenth century in India was momentous in respect of the emergence of a consolidated theory of national economy and many important ideas for the economic betterment of the people of India. The 'Grand old Man of India'—Dadabhai Naoroji was the first to see the realities and inherent mechanism of economic force in a colonial country like ours.¹ The first attempt to estimate national income in India was made by Dadabhai Naoroji. His estimate of the per capita income of Rs. 20/- for British India for the year 1871 was a very bold indicator of the economic reality in our country. It provoked series of controversies but what matters in this connection is not whether his figure was an underestimate or an over estimate but it was an indicator of the employment situation and national income in the tragic background of the drain of wealth from India. His pioneering attempt was to examine the situation in its real context, i. e. in relation to his broad conception of economic drain. He was the originator of the conceptual framework which was found useful even by an economic historian like R. C. Dutt.²

It is not hard to see that Dadabhai's conception of economic drain from India is the basis of a theoretical approach to a colonial economy. Romesh Dutt substantiated the drain theory with other essential details. It will be our attempt to analyse the working of this tragic process in the play of economic forces which is mainly responsible for the stark reality of Indian poverty even to day.

Edmund Burke on Economic Drain :

Edmund Burke was the first to bring it to the public notice in a very elaborate and eloquent manner the ruinous effects of perpetual drain of wealth from India during the regime of the East India Company. He was the author of the famous 'Ninth Report of the Select Committee of the House of Commons (1783)'. The 'Ninth Report' is a contemporary account of the affairs of East India Company in Bengal. It was asserted there for the first time that "the whole exported produce of the country so far as the Company is concerned is not exchanged in the course of barter, but it is taken away without any return or payment". It was not only the English traders' activity in India but the "whole foreign maritime trade whether English, French, Dutch or Danish arises from the revenues and these are carried out of the country, without producing anything to compensate for so heavy a loss."

This one way transit of the country's revenue through exports brought no equivalent return to compensate for the loss. It took away the purchasing power of the people under the compulsion of political economy of colonialism. This unilateral transfer of purchasing power in India was a prolonged and continuing process since the early days of the 18th century.

Some British Annotations of Economic Drain :

We are lucky to find some British liberals in the nineteenth century, like Burke, who were able to take unbiased view of the situation. Their attention was drawn to this prolonged transfer of the purchasing power of the people of India.

To be more pragmatic and precise, Dadabhai felt no loss of pride to quote those English liberals, his predecessors who after Burke sought to explore this continuous drain under the constraint of colonial economy. Indeed he took the views of those liberals as the basis of his thought and connected them to evolve a coherent theory of drain. He took account of (a) Sir John Shore's testimony in his famous minute to the Fifth Report (1787),³ (b) the evidence of Lord Cornwallis in his minute of 1790,⁴ (c) Montgomery Martin's statement in 1816,⁵ and (d) the testimony of Saville Marriot,⁶ a commissioner of Revenue in the Deccan.

Abuse of Dustack and Origin of the Drain :

The drain of wealth from India actually began from the abuses of Dustack by Company's servants. In the eighteenth century the inland transportation of commodities by the roads and rivers was subject to transit duty in India. The Mughal Emperor granted a *Farmān* to the East India Company which enabled them to carry merchandise from one part of the country to the other without paying any duty. A Dustack or a certificate by the

President of English Factories in India was necessary for exemption of Company's commodities from all such duties. But the practice was that the Company's servants, one and all, were engaged in private trade. They took full advantage of using *Dustack* in favour of their private trade which was exclusively granted to the transit of Company's goods only. The practice defrauded the State of its revenues and it gave unfair advantage to the Company's servants engaged in private trade.

From 1713 A. D. the Court of Directors of East India Company began to allow English free merchants to trade in their domain in India. The abuses increased with the spread of European merchants. They followed Company's servants to all parts of the country in their invasion of inland trade free of duties and deprived the country's government of its dues. By captivating a major part of inland trade and defrauding the State of its revenues the Europeans amassed lofty fortunes. It is not hard to see that the element of drain, at first, originated from the abuse of *Dustack* before the incident of *Plassey*.

After *Plassey* new pattern of external drain started. It extorted resources of the country in a very ravishing manner through the operation of foreign trade in a peculiar way. The pattern attracted *Dadabhai's* predecessors' notice.

To have background of *Dadabhai's* theory, we have to explore the materials which he used. His predecessors' attempt to reveal the problem of drain is important for the full enunciation of his theory.

A) Sir John Shore's Testimony

Following *Burke*, *Sir John Shore* in 1787 stated explicitly that "the Company are merchants as well as sovereigns of the country. Whilst in the latter they appropriate the revenues. The remittances to Europe are made in the Commodities of the Country which are purchased by them".

B) Evidence of Lord Cornwallis

Next we come across the statement of *Lord Cornwallis*. *Lord Cornwallis* exposed one of the serious consequences of the perpetual drain from India. In his minute on land settlements of 1790 he commented that "the consequence of heavy drain of wealth from the above causes (*viz.*, large annual investment to Europe.....) with the addition of that which has been occasioned by the remittances of private fortunes, have been for many years past, and are now, severely felt, by the great diminution of the current specie, and by the langour which has thereby been thrown upon the cultivation and the general commerce of the country".

C) The Views of Mr. Montgomery Martin

Montgomery Martin in 1816 made an attempt to estimate the volume

of drain from India. Mr. Martin explored genuine enquiries of Francis Buchanan. Buchanan was directed by the Court of Directors of the Company to make statistical survey of some of the districts of Bengal, northern and southern India.

The valuable materials collected by him were left unused for a long time. Montgomery Martin, the historian of the British colonies obtained permission to examine the results of enquiries of Buchanan and "brought them to light". Dadabhai took the evidence of Martin only to examine the volume of drain in his own manner and also to defend his own theory. He referred to Mr. Martin's assessment thus :

"The annual drain of £ 3,000,000 on British India has amounted in 30 years, at 12 p. c. (the usual Indian rate) compound interest to the enormous sum of £ 723,900,000 sterling....., so constant and accumulating a drain, even in England, would soon impoverish her. How severe then must be its effects on India where the wage of a labourer is from two pence to three pence a day?"

D) The Statement of Saville Marriot

Lastly, we shall uphold the statement of Mr. Saville Marriot, a commissioner of revenue in the Deccan (1836), as quoted by Dadabhai. Mr. Marriot's statement contributed some important elements in the formation of the drain theory. Referring to the distress and wretched condition of the peasantry of India and their inability to bear the burden of taxation he emphatically protested against "various severe acts of tyranny and oppression" on them while expressing "I feel certain that an examination would establish that a considerable share of this and other property (of the peasantry) even to cattle and household utensils, has been for ever alienated from its proprietors to make good the public revenue..... Most of the evil of our rule in India arise directly from, or may be traced to, the heavy tribute which that country pays to England..... India paid to the mother country in the shape of home charges, what must be considered the annual tribute of £ 3,000,000 sterling and daily poured into the lap of the mother country a continual stream of wealth in the shape of private fortunes".

British Views and Some Elementary Concepts of the Theory :

We think it enough to reproduce only four evidences out of many others which Dadabhai upheld to construct his theory of drain. These four statements disclosed the logical outline of the drain theory while the last statement about malady and suffering of the agricultural class had been fully utilised by R. C. Dutt to elaborate the approach of the theory including a discussion about the lack of primary capital accumulation in our country from agricul-

ture. It has illuminated the drain theory with an essential element which we have discussed in the later portion of our review.

These early predecessors of Dadabhai used certain notable concepts that become indispensable for the elaboration of the theory of drain, such as,

- (1) trade with no equivalent return,
- (2) drain of wealth in the shape of private fortunes,
- (3) remittance of surplus in the shape of commodities,
- (4) remittance of home charges as annual tribute,
- (5) need for an estimation of the annual drain,
- (6) diminution of species, and
- (7) the reverse of primary accumulation of capital from land.

These seven concepts framed the outline of theory of external economic drain which Dadabhai developed with the help of minute statistics. However, the last concept was explored skilfully by Romesh Dutt.

Dadabhai and the Origin of the Theory:

Dadabhai is to be credited for devising a theory using these concepts in the most intelligible way. In this connection, we are, however, allured to echo Dr. B. N. Ganguli's⁷ brilliant review that "Dadabhai had an amazing sense of statistical magnitude, of which any economist could be proud of" which he had used most competently to explain the working of drain thus: "The exports of India for the years 1835 to 1872 being about £ 1,120,000,000, the imports with an addition of 15 p.c. to exports for profits (of about £ 168,000,000) should be about £ 1,288,000,000 (being the sum of £ 1,120,000,000 + £ 168,000,000). Besides this, India has incurred to foreign parts a debt of about £ 50,000,000 for the public debt and about £ 100,000,000 for railways during the same period. Now on the other hand, in return for the exports plus profits of £ 1,288,000,000 and £ 150,000,000 of the loans (i. e., £ 100,000,000 + £ 50,000,000), India has actually imported, during the last 38 years, from 1835 to 1872 only about £ 943,000,000 leaving a balance of about £ 500,000,000 which England kept back as its benefit chiefly arising from the political position it holds over India. This is without including any interest at all". Again calculating other factors, cost of China trade, interest on railway loans etc., "the sum of £ 200,000,000 should be considered as drain from the very produce of the country".⁸

The four elementary concepts out of seven have been given recognition in the above statement of the working of external drain :

- (A) trade with no equivalent return,
- (B) remittance of surplus in the shape of commodities,

- (C) remittance of home charge as annual tribute, this being included in the above sum of £ 150,000,000 containing public debt and railway loans, and
- (D) an estimation of £ 200,000,000 sterling being drained through foreign trade.

Excluding the last concept, the reverse of primary capital formation from land, the other two remaining concepts have been dealt with separately by him.

On the drain of wealth in the shape of private fortune (Concept No. 2) Dadabhai stated; "This drain consists of two elements, first, that arising from the remittances by European officials of their savings, and for their expenditure in England.....and from Government expenditure in England and India. And second that arising from similar remittance by non-official Europeans".⁹

On the question of diminution of specie, Dadabhai quoted from the Minute (1787) of Sir John Shore—"The exports of specie from the Country for the last 25 years have been great, and particularly during the last ten of that period. It is well understood, although the remittances to China are by the Government, provided by bills, that specie to a large amount has been exported to answer them.....Silver bullion is also remitted by individuals to Europe, the amount can not be calculated, but must, since the Company's accession to the Dewany have been very considerable".¹⁰

The Drain and the Problem of Capital Formation :

These three quotations from Dadabhai seem to me to be enough to explain the outline of the working mechanism of external drain from India. The appreciation of all these six concepts in a theory of drain makes us aware of further consequences. One of them hangs over the problem of capital formation for economic development in general. Dadabhai is manifestly clear on this point as proved by his statement which is quoted below :

".....because it is exhaustion caused by the drain that disables us from building our railroads, etc., from our own means. If we do not suffer the exhaustion we do, and even then we found it to our benefit to borrow from England, the case would be one of a healthy natural business and the interest then remitted would have nothing to be deplored in it as in the case of other countries.....".¹¹

Dadabhai went deeper inside the problem. The obstruction towards capital formation in general in a country compels it to live in a rigid vicious circle of poverty. A growing economy requires a continuous process of investment. This being impossible in India where capital formation tended to be negative, the country was a sure prey to the tragic compulsion

of a vicious circle. It is interesting to quote Dadabhai on this point. Dadabhai stated: "As the drain prevents India from making any capital, the British by bringing back the capital which they have drained from India itself, secure almost a monopoly of all trade and important industries, and thereby further exploit and drain India.....".¹²

It shows the beginning of a vicious circle with endless continuity that befell over India.

The Export of Food-Grain—a Drain :

The process of retardation of our overall capital formation and the nature of compulsion of the colonial economy have been explored most skillfully by Romesh Dutt. The first six concepts of the drain theory, discussed previously, mostly deal with the problem of overall capital formation. But the last one, dealing with the concept of capital formation from land—the primary source for accumulation of capital, where agricultural economy is predominant was treated with due attention by R. C. Dutt. In this connection it should not be forgotten that the rate at which economic growth in any country takes place, is necessarily predominated by the rate of increase in the supplies of marketable surplus of foodgrains. A developing economy with an expanding non-agricultural sector requires a quantitative increase in foodgrain supply for feeding her working force. But this flow of foodgrains in India had been baffled successfully by the commercial policy of the E. I. Company. Under the compulsion we did otherwise—we exported foodgrains. Dutt showed by quoting a chart that "export of foodgrains showed steady and alarming increase and the figure rose in ten years (1849-1858) from less than a million to nearly four millions. It was a natural result, when handicrafts and manufactures declined, and India had to pay for annual tribute to England as well as for her imports, that sent out a continuously increasing share of the food supply of the people".¹³

Under compulsion the exodus of foodgrains occurred even during great famines. In this connection Dutt gave the most pertinent reference of abolition of Corn Laws in England. The English Parliament in 1814 dominated by land-owners prohibited the import of corn just to check the falling price of grain in England. But the English Corn Laws heavily taxing foreign grains were in effect abolished in 1846 and from 1849 onward England was admitting grain duty free. The measure brought "cheap bread to the workmen and labourers in England" and from the same year she began to receive Indian foodgrains which reached the high figure of 12 million sterling a year at the end of the 19th century. This had a direct effect in retarding capital formation in agricultural sector in India. During the last quarter of the 19th century six great famines in India killed 15 million people of the country. This situation has no

parallel in the history of any country.

The Drain and the Strain on Agricultural Sector :

While England was successful in processing capital formation in agricultural sector India lost it forever. The commercialisation of agriculture there, went simultaneously with the progress of industrialisation. People were thrown out of employment in the rural areas in England during the great Enclosure movement. It separated workers from their land and agricultural employment. The rural workers thrown out of employment were soon absorbed by the new industries. In India, the reverse had its way. The process of industrialisation was retarded by the compulsion of the colonial economy. It was not, however, the policy of the East India Company to foster Indian industries. Their fixed policy during the period was to make India subservient to the industries of Great Britain and make India produce raw products only.

This had a direct bearing on the trade policy of the English government which was mainly oriented to the theory of colonial trade of Adam Smith. Smith propounded thus—"It is rather for the manufactured than for the rude produce of Europe, that the colony trade opens a new market. Agriculture is the proper business of all new colonies".¹⁴ Again and again in the parliamentary debates Adam Smith was quoted as saying, "East Indies offered for the manufacturers of Europe greater and more expansive than both the Europe and America put together".¹⁵

Hence the policy was pursued with fatal success. The entire population was, therefore, thrown up on agriculture as the principal source of livelihood. In Europe during the same time the labour was released from agriculture to work as wage-labourer in the expanding industries. In India manufacturing industry threw out labour to be absorbed in the stagnating agriculture.

The Drain and the Lack of Capital Formation in the Primary Sector :

The weight of the situation is to be understood in its proper perspective, that the industries in India not only supplied the needs of her people but produced a large exportable surplus. India's textile fabrics and even other products were marketed to various parts of the world right from Canton to New South Wales in the East to Philadelphia and Argentina in the West. The magnitude of the productive activity producing so heavy a surplus for foreign export will certainly convince one of the extent the dislocation of the economic set up affected the existing structure of the society. This had a relation with economic drain directly. In order to sustain British industries a direct drain of raw produce, foodgrains and bullions affected our traditional economic set up.

Thus agricultural sector had to absorb excess labour. Obviously it lowered the level of productivity. Under compulsion of forced unemployment and under-employment the primary sector generated sub-standard return and low per capita income. The cost of maintaining excess labour without making compensating contribution puts strain on productive efforts. It retards capital formation on the sector—the primary source of economic growth. Thus, drain had a direct consequence that released inverse movement towards economic growth.

Dutt was to some extent aware of the situation. He commented: "In India the state virtually interferes with the accumulation of wealth from the soil".¹⁶

The Estimate :

Dutt was more critical than Dadabhai in presenting the problem of drain and in showing the overall consequences of it. As an historian he was able to assess the order of magnitude of events that had direct relation with drain, such as the finance of China trade by the East India Company, expenses of wars and annexations of northern and southern India, the cost of addition of Burma to the British Empire. All these expenses were incurred out of the revenues of Bengal.

Like Dadabhai he arranged his case very efficiently on statistical data and his treatment was adequately convincing to substantiate the thesis that if economic drain were excluded the government account showed continuing surpluses—there were also continuing and real export surpluses. Both these surpluses could have been utilised for the purpose of economic development of the country.

It was the British liberals who initiated the idea. Dadabhai Naoroji and Romesh Dutt explored all the concepts to develop an integrated theory that explains the arrested and undeveloped economic situation of our country.

The drain theory can explain how the broad determinants of employment and income, i. e., private consumption, private investment, government expenditure and balance of trade were affected badly in our country. It was stated before how the economic drain caused overcrowding of agriculture in India. Agriculture was suddenly called upon to support an ever increasing population. The process depressed wage levels as well as prices. We believe that such phenomena are responsible for very poor performance in generating national income in India.

The theory as propounded by Dadabhai Naoroji and Romesh Dutt interprets successfully the impact of such overall loss causing perpetual under-development of our country. The theory should be studied as this is the only indigenous theory developed and sustained by the Indian economists

in the 19th century India in order to explain the process of income, retardation and economic backwardness of our country.

NOTES AND REFERENCES

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2. R. C. Dutt, *The Economic History of India*, 2 Vols.
3. Dadabhai Naoroji, *op. cit.*, p. 35.
4. *Ibid.*, p. 36.
5. *Ibid.*, p. 37.
6. *Ibid.*, p. 39.
7. B. N. Ganguli, *Dadabhai Naoroji and the Drain Theory*.
8. Dadabhai Naoroji, *op. cit.*, p. 31.
9. *Ibid.*, p. 34.
10. *Ibid.*, p. 79.
11. *Ibid.*, p. 31.
12. *Ibid.*, p. 34.
13. R. C. Dutt, *op. cit.*, Part II, p. 252.
14. Adam Smith, *The Wealth of Nations*, Part II, p. 109.
15. Hansard's Parliamentary Debates 1812, Vol. 23.

There is no confusion that Smith represented the interest of a single class. He directed his vehement attack against the privileged position of mercantilism in England. The monopoly enjoyed by mercantilism hampered the industrial growth of Great Britain. So far monopoly was enjoyed by the E. I. Company importing Indian manufacturing products (specially cottons) which obstructed the sale of British products even in the home market. Smith was vehement in decrying the status of the East India Company. But his advocacy of a particular interest was never directed to support the growth of Indian manufacturing industry and inspite of his support to free trade between England and India the logic of his theory could not be used to defend the common interest of England and her colony.

16. R. C. Dutt, *op. cit.*, Part I, Preface.

DEBKUMAR DUTTA MAZUMDAR

Productivity of Labour and Capital: 1951 to 1961

INTRODUCTION

IN this paper, the aggregate industrial production, labour supply, and capital stock of Indian manufacturing for the period 1951 to 1961 are analysed by fitting Cobb-Douglas production function after empirical verification of its suitability, and the marginal productivities of labour and capital along with certain theoretical properties of the function are discussed.¹ The Cobb-Douglas model has the merit that it takes specific cognizance of changes in the productivity of labour and provides a frame work for considering the laws of factor returns and economies of scale or output.

In considering the exponents of labour and capital in the fitted production function, it is found that an increase in labour by 1 percent with capital constant would increase output by 0.46 percent, and an increase in capital stock by 1 percent with labour constant would increase output by 0.54 percent, and an increase of both labour and capital by 1 percent would increase output by 1 percent. That the two components add to unity indicate that the production function operates with constant return to scale.

While calling attention to the marginal productivity of labour it is shown that there is a broad agreement between marginal net productivity of labour and average wage rate and this is possibly in keeping with the marginal productivity theory of wages.

At a given technology, the constant term in the fitted equation includes the technical changes and scientific improvement for the given industrial structure in the economy. Here, technical change means qualitative changes in the efficiencies of labour and capital; labour becomes efficient by better

health and training and capital becomes efficient by better utilization. The efficient labour and capital supply can be ensured by socio-economic measures, there being no dearth of labour force and material resources in India.

The population in India has increased from 359 million to 439 million or by nearly 22 percent between 1951 and 1961. During the same period employment index in manufacturing has also increased by 22 points, that is, the ratio of labour force employed in manufacturing to total population has remained constant after first two Five Year Plans and this fact is amazing. That means, the programme of industrialisation without the basic structure for indigenous industrial base did not affect the ratio of labour force in manufacturing to population.

The index of fixed capital has increased by 140 points and the intensity of capital per labour year has increased by 97 points during the period 1951 to 1961. It is also observed that the indices of gross product and net product at constant prices have increased by 91 and 73 points respectively. Also, net productivity per labour year have increased by 53 and 52 points respectively at current and constant prices and during the same period, it is observed that the real wages and salaries per labour year have increased by 56 points so that wages and salaries are more or less a fixed proportion of gross or net product.

The subsequent analysis shows that wages per unit of labour is determined by the marginal net productivity per unit of labour and total wage bill is more or less a fixed share of gross or net product, and productivity per labour is determined by capital invested per labour. Also the rate of growth of wages and net output have practically remained the same so that share of net output going to labour has remained the same.

THEORETICAL MODEL OF THE COBB-DOUGLAS TYPE AND ITS PROPERTIES

As an adequate description of reality we start with a model of Cobb-Douglas type

$$(1) \quad P = A L^\alpha C^\beta U$$

where P the index of output, A a constant, U a disturbance term, L and C the indices of inputs of labour and capital and α , β , the exponents of labour and capital indicating the proportionate change in output (P) for a given proportionate change in factor (L or C).

We have, (2) $\alpha = \frac{L}{P} \frac{dP}{dL}$ (elasticity with respect to labour input)

$$(3) \quad \beta = \frac{C}{P} \frac{dP}{dC} \text{ (elasticity with respect to capital input)}$$

$$(4) \quad \frac{dP}{dL} = \alpha \frac{P}{L} \quad (\text{marginal productivity of labour input})$$

$$(5) \quad \frac{dP}{dC} = \beta \frac{P}{C} \quad (\text{marginal productivity of capital input})$$

and P/L and P/C , the average productivity of labour and capital input respectively, and

$$(6) \quad L \frac{dP}{dL} = \alpha P, \quad C \frac{dP}{dC} = \beta P$$

the absolute shares of the two factors of production.

The parameters α and β , in addition to being elasticities possess other important attributes for economic analysis and it is in an important economic question whether $\alpha + \beta$ is less than, equal to or greater than unity. Actually, the sum $\alpha + \beta$ shows the degree of homogeneity of the function and the degree of return to scale in production; that is,

$$(7) \quad \alpha + \beta < 1 \quad (\text{decreasing returns to scale})$$

$$(8) \quad \alpha + \beta = 1 \quad (\text{constant returns to scale})$$

$$(9) \quad \alpha + \beta > 1 \quad (\text{increasing returns to scale})$$

When $\alpha + \beta$ equal to unity holds, the production function, homogeneous of the first degree takes the form

$$(10) \quad (P = AL^\alpha C^{1-\alpha} \quad 0 < \alpha < 1$$

and then we may write the production function as

$$(11) \quad P = L \frac{dP}{dL} + C \frac{dP}{dC}$$

that is, in a perfectly competitive economy, the marginal productivity of labour multiplied by the number of units of labour plus the marginal productivity of capital multiplied by the number of units of capital would be equal to output. This means that the remuneration of productive agents: labour and capital, according to marginal productivities exhaust the output.

If we plot P/C against C , we get different values of productivity for different values of capital investment and thus we get average productivity curve of capital invested and from this curve we can get the elasticity of the average productivity curve. If A. P. and M. P. denote average and marginal productivity at a given output, then we have

$$(12) \quad \text{M. P.} = \text{A. P.} \left(1 - \frac{1}{n}\right), \text{ i. e., } n = \frac{\text{A. P.}}{\text{A. P.} - \text{M. P.}}$$

and in our earlier notation.

$$(13) \quad n = \frac{P/C}{P/C - \frac{dP}{dC}}$$

From production function in (10) we get

$$(14) \quad \frac{dP}{dC} = \frac{P}{C} (1-\alpha)$$

and in that case (13) becomes

$$(15) \quad n_c = \frac{P/C}{P/C - P/C (1-\alpha)} = \frac{1}{\alpha}$$

In the same way, we get the elasticity of average productivity curve of labour as

$$(16) \quad n_e = \frac{P/L}{P/L - P/L (\alpha)} = \frac{1}{1-\alpha}$$

VERIFICATION OF THE MODEL AND ESTIMATION OF PARAMETERS

If we suppose that the industrial production of Indian manufacturing can be represented by a linear homogeneous function in terms of labour and capital and it takes the form (10) then, with $1-\alpha=\gamma$

$$(17) \quad (P/L) = A (C/L)^\gamma$$

That is, output per unit of labour input is linearly related to capital per unit of labour input in double logarithmic scale.

With the help of production data of Indian manufacturing industries for the period 1951 to 1961 (A note on data of Indian manufacturing industries and definition of variables are given in the appendix), the indices of deflated gross product² per labour year against the indices of deflated capital per labour year were plotted in double logarithmic scale and the graph was found to be linear. We then conclude that the data of industrial production of Indian manufacturing industries can reasonably be represented by a linear homogeneous function of first degree in terms of the two factors of production, labour and capital.

The parameters γ and A in equation (17) were evaluated from indices of deflated gross product per labour year against the indices of deflated capital per labour year by the method of least squares³ and we obtain $\gamma=0.54$ and $\log A=0.96$.

The correlation coefficient between observed values of indices of deflated gross product per labour year and their corresponding expected values is obtained as $R=0.87$.

To test the statistical significance of the estimate of γ , analysis of variance was performed and mean square due to regression (d. f.=1) was compared with mean square due to deviation from regression (d. f.=9) and we got an F value of 22.09 and $F(1,9)$ is significant at 1% level. With the estimate of mean square error in the analysis of variance table, the variance of regression coefficient γ was estimated and variance $(\gamma)=0.013$ is a reasonable figure.

INTERPRETATION OF RESULTS

If the production function be homogeneous of first degree then from (3) and (10) we have

$$(18) \quad (1-\alpha) - \frac{dP}{dC} \frac{C}{P} = \frac{dP}{dC} \frac{C}{P/C}$$

If the marginal productivity of capital dP/dC is assumed to be constant over a period and since α is constant for a given structure of industries over a period, then the capital output ratio can also be assumed to be constant for the same structure of industries over the same period. In industrially and technologically advanced countries the marginal productivity of capital is likely to be low and therefore the ratio P/C will also have a lower value than the relatively less advanced countries. In an ideally industrialised country where maximum level of production has been attained any fresh addition to the existing stock of capital will not result in any corresponding increase in total net output. In that case as C tends to its maximum value, $P/C \rightarrow$ to a value near about zero and $dP/dC \rightarrow$ zero and therefore $1-\alpha \rightarrow 0$ and $\alpha \rightarrow 1$.

Let us take another extreme case and assume that one unit of capital yields one unit of output. This is possible in a country where the process of industrialisation has just started and capital, labour and materials have yet to be fully employed, then the ratio $P/C \rightarrow 1$ and also $dP/dC \rightarrow 1$ and hence $1-\alpha \rightarrow 1$, and $\alpha \rightarrow 0$

From the above arguments it transpire that α varies between 0 and 1 in accordance to the industrial and technological advancement of the country; $1-\alpha$ takes lower value in an industrially and technologically advanced country and higher value in a semi-industrialised country or a country where process of industrialisation has just started.

In a semi-industrialised and developing country like India we have obtained the equation of industrial production as

$$(19) \quad P = AL^{0.46} C^{0.54}$$

in which the exponents of capital (C) = 0.54 is an index of the state of industrialisation of Indian economy, yet to be fully industrialised but not yet an under-industrialised stagnant economy.

Murti and Sastri (1957), based on cross-section Indian data for 1952, obtained the exponents of labour and capital as 0.53 and 0.50 respectively.⁴

Before we discuss further about the economic significance of the exponents of labour and capital we will interpret constant 'A' mathematically and give its economic significance. The value of $\log A$ indicates the value of $\log P$ when $\log L$ and $\log C$ are zero and thus, if L and C are one unit

each the theoretical value will be indicated by 'A' and therefore 'A' indicates the product attributed to one unit of labour with one unit of capital. The value 'A' thus, symbolises at a given technology, the state of industrial development reached with a given technique of production for a given industrial structure in the economy; 'A' also includes innovations in the economy unless we introduce a separate factor e^{rt} (say) at time t for innovations. The term innovation covers any qualitative change affecting the efficiencies of labour and capital. While labour becomes more efficient by better health, better training and changes in attitude towards work and capital becomes more efficient by scientific inventions and both become efficient by way of better entrepreneurship.

In interpreting the exponents of labour and capital we find that the laws of factor return to capital and labour and the consequences of economies of scale on the output. These relate to the question: if labour increases by 1 percent but capital remains constant or capital increases by 1 percent while labour remains constant, will the increase in output be equal to, or more than or less than 1 percent? That is, factor return is concerned with changes in the ratio of output to input of a factor as its quantity is increased in relation to other factor or factors. Secondly, if both labour and capital increase by 1 percent will the increase in output be equal to, greater than or less than 1 percent?

We now discuss the exponents of labour (L) and capital (C) and thereby marginal efficiencies of factor inputs. In the light of the properties of Cobb-Douglas function we may interpret the exponents of equation (19) of Indian manufacturing as follows: (i) an increase in labour (L) by 1 percent with capital (C) constant would increase output (P) by 0.46 percent; (ii) an increase of capital stock (C) by 1 percent with labour (L) constant would increase the output (P) by 0.54 percent; (iii) an increase in both labour (L) and capital (C) by 1 percent would increase the output (P) by 1 percent.

In Table 1, are shown marginal gross and net productivity of labour (refer foot note 6) at current and constant prices together with gross marginal productivity of capital at current prices. Wages and salaries per labour year at current and constant prices are also shown in the table. The results show that there is broad agreement between net productivity per labour year and the average wages and salaries per labour year and this may be considered to show a broad confirmation of the marginal productivity theory of wages. Further, since average productivity per labour year is much higher than average wages and salaries per labour year, producers are always on the safe side of making reasonable profits. We also estimate the elasticity of average productivity of curve of capital and labour as 2.2 and 1.8 from equations (15) and (16).

Table 2 shows that during the period of 1951 to 1961 the indices of

employment in manufacturing have gone up by 22 points. During the same period the index of population has increased by 22 points.⁵ That is, the ratio of labour force employed in manufacturing to total population has remained fixed at the end of first two Five Year Plans. In the same table we find that the indices of fixed capital and invested capital (i. e., fixed capital plus working capital) have increased by 140 and 106 points respectively and the indices of gross product and net product have gone up by 106 and 86 points respectively at current prices and 91 and 73 points respectively at constant prices (deflated by indices of manufactured goods). The above results show that the industrial production in India during the period is affected mainly by factor return of capital. The fact that the ratio labour force employed to total population has remained constant even after two Five Year Plans may possibly indicate very little backward linkage effect in the process of economic development of country.

In Table 3, we find the capital intensity has practically doubled, during the period, that is, the index of fixed capital per labour year has increased by 97 points. The ratios gross and net output per unit of capital have practically remained constant during the period. In the same table we also find the stability of the ratios net output to gross output⁶ and also the approximate stability of ratio: fixed capital to invested capital. The ratios of fixed capital to gross output and invested capital to gross output are also somewhat stable.

Table 4 shows that during 1951 to 1961 the indices of gross and net productivity per labour year have increased by 69 and 53 points respectively at current prices and 57 and 52 points respectively at constant prices. We also see that wages and salaries per labour year have increased by 65 points at current prices and by 56 points at constant prices (deflated by general index) in Table 5. That is, the increase in wages and salaries per unit of labour is given, so to say, from increase in productivity per unit of labour. It is also seen from Table (5) that the ratios of wages and salaries to gross output and salaries to net output have practically remained constant.

From these we find that the real wages and salaries per worker is determined practically by the productivity per unit of labour and the total wages and salaries are a fixed share of the gross product or net product. Also, the productivity per labour is determined broadly by the capital investment per labour or capital intensity per labour. This, in fact, is implicit in equation (19) fitted above. That means, the rate of growth of wages and salaries and the gross or net product have practically remained same so that the share of the output going to labour has remained practically constant.

CONCLUDING REMARKS

From empirical consideration we have represented the production of

Indian manufacturing industries by the Cobb-Douglas production function. As a logical tool we may search a function to represent the production of the whole economy and this is a difficult task. We may possibly argue that if Cobb-Douglas function holds for industrial sector, it may possibly also hold for agricultural sector and also for the whole economy. Of course, the values of parameters of the aggregate production function for the whole economy depend upon the way in which the factors are distributed over separate sectors and their technological relationship. The analysis appearing to be very much complicated, it may be difficult to get such a function but in case we get then the analysis of marginal productivity of labour and capital for the whole economy becomes somewhat easy.

If we take the whole economy and if we want to maintain that the real income per capita is to increase with the increase in population (in which ratio of labour force to population remain unchanged) the capital stock and labour force in employment would have to increase at a faster rate than population increase.⁷ Also, if we include in the levels of consumption, the health services consumptions, and education service, then the investment in such services would have to increase at a faster rate than population increase so as to raise the levels of consumption. If capital includes natural resources (e. g., land) then the man-made capital must increase at a faster rate than the population increase to make up the failure to increase natural resources equally with population.

APPENDIX

1. *On Data Used*

The data for the period from 1951 to 1961 were used in the present study of which the data from 1951 to 1958 in respect of gross and net products, fixed and invested capital, wages and salaries, labour force in employment, etc. of Indian manufacturing industries were taken from the published reports of Sample Survey of Manufacturing Industries (SSMI). The SSMI covered all factories (excluding those under Ministries of Defence and Railways) in Indian Union, under Factories Act, 1948, under section 2m(i) and 2m(ii) which refer respectively to factories using power and employing 10 or more workers and factories not using power and employing 20 or more workers on any day.

The data for the period 1959 to 1961 of the above characteristics of Indian manufacturing industries were, however, taken from the published reports of Annual Survey of Industries (ASI) because with effect from 1959, SSMI including scheduled industries were discontinued. The ASI, conducted under Collection of Statistics Act, 1953 has a Census part and a Sample part of which Census part (compiled by Central Statistical Organization, Delhi) covered all factories employing on an average 50 or more workers using power, or 100 or more workers not using power and the sample part (estimated by Indian Statistical Institute, Calcutta) comprised all factories not covered in the Census part. The defence installations and the factories engaged in storage and distribution of oil were not covered either in Census part or in Sample part.

2. *Definition of Variables*

1. Gross output or Gross product (P) represents the ex-factory value of all finished goods produced by the factory plus the value of industrial services rendered by the factory to outside parties.

2. Net output or Net product or Value added (P^1) is computed by deducting from gross output (P) the value of fuels and materials consumed in the manufacture of goods and repair of fixed capitals and the expenses on industrial and non-industrial service purchased.

3. Labour (L) comprises all persons engaged in factory, connected directly or indirectly in manufacturing process including administrative, clerical and technical staff but excluding all persons engaged in post-manufacture distributive activities.

4. Fixed Capital (C) represents the depreciated book value of fixed assets (comprising land, buildings, plant, machinery and assets like furniture, fixtures, fittings, automobiles, patents, etc.) which covers all goods with a normal economic life of one year or more and used by the factory for its own purpose but excluding those used for post-manufacture distribution.

5. Working Capital (C^1) represents the value of raw materials, finished and semi-finished products, cash in hand and at bank and net balance of sundry debtors over sundry creditors.

6. Wages and Salaries (W) comprises all payments made in cash as compensation for the work done and cost or value of all supplies and services rendered as labour amenities.

TABLE 1

Marginal Gross and Net Productivity per Labour Year, Wages and Salaries per Labour Year and Marginal Gross Productivity (Yearly) per Unit of Capital for All-India

Year	Marginal gross productivity per labour year $\left(\frac{dP}{Ld}\right)$		Marginal net productivity per labour year $\left(\frac{dP^1}{dL}\right)$		Wages and salaries per labour year (W/L)		Marginal gross productivity (yearly) per unit of capital at current price (Rs.) $\left(\frac{dP}{dC}\right)$
	Current price (Rs.)	Constant price (Rs.)	Current price (Rs.)	Constant price (Rs.)	Current price (Rs.)	Constant price (Rs.)	
1951	3298	3298	932	932	971	971	1.68
1952	3241	3763	958	1101	1089	1285	1.46
1953	3216	3859	1052	1262	1125	1294	1.38
1954	3344	3978	1081	1287	1069	1283	1.55
1955	3442	4096	1058	1259	1107	1462	1.52
1956	3891	4436	1127	1284	1121	1301	1.73
1957	3949	4344	1110	1221	1132	1245	1.72
1958	4343	4778	1295	1425	1371	1495	1.73
1959	4390	4785	1339	1459	1384	1439	1.40
1960	4943	4844	1286	1265	1481	1451	1.45
1961	5574	5184	1425	1413	1599	1519	1.44

TABLE 2

Indices of Gross and Net Products, Fixed and Invested Capital and Employment for All-India

Year	Index at current price		Index at constant price		Index of		Index of employment
	Gross product	Net product	Gross product	Net product	Fixed capital	Invested capital	
1951	100	100	100	100	100	100	100
1952	94	99	110	114	109	113	96
1953	95	110	114	132	116	113	97
1954	101	105	120	126	116	106	99
1955	106	115	126	137	117	105	101
1956	128	131	146	150	125	112	109
1957	138	137	151	151	134	121	115
1958	145	153	159	168	141	128	110
1959	155	167	169	183	187	152	117
1960	178	164	175	161	206	172	119
1961	206	186	191	173	240	206	122

TABLE 3

Technological Ratios P/C, P¹/C, C/L, C/P, C¹/P, C/C¹ and P¹/P × 100, for All-India

Year	Productivity per unit of capital (Rs.) for		Fixed capital per labour year (C/L)		(C/P × 100)	(C ¹ /P × 100)	(C/C ¹ × 100)	(P ¹ /P × 100)
	Gross (Rs.) (P/C)	Net (Rs.) (P ¹ /C)	Actual (Rs.)	Index				
1951	3.11	0.88	2305	100	32.15	60.61	53.04	28.24
1952	2.70	0.80	2611	113	37.07	72.79	50.93	29.56
1953	2.55	0.83	2745	119	39.27	72.51	54.16	32.70
1954	2.87	0.80	2954	128	37.15	64.00	58.05	29.57
1955	2.82	0.86	2658	115	35.52	60.22	58.98	30.72
1956	3.20	0.93	2645	115	31.26	53.01	58.98	28.94
1957	3.19	0.90	2689	117	31.33	53.34	58.73	28.12
1958	3.20	0.95	2955	128	31.29	53.55	58.45	29.82
1959	2.59	0.79	2691	117	38.66	59.46	65.02	30.49
1960	2.69	0.70	3993	173	37.17	58.29	63.76	26.02
1961	2.67	0.68	4532	197	37.40	60.55	61.77	25.79

TABLE 4

Average Gross and Net Productivity Per Labour Year at Current and Constant Prices for All-India

Year	Gross productivity per labour year (P/L)				Net productivity per labour year (P ¹ /L)			
	Current price		Constant price		Current price		Constant price	
	Actual (Rs.)	Index	Actual (Rs.)	Index	Actual (Rs.)	Index	Actual (Rs.)	Index
1951	7169	100	7169	100	2025	100	2025	100
1952	7045	98	8180	114	2082	103	2394	118
1953	6990	98	8388	117	2286	113	2743	135
1954	7269	101	8650	121	2351	116	2798	138
1955	7483	104	8905	124	2299	114	2736	135
1956	8459	118	9644	135	2449	121	2792	138
1957	8584	120	9443	135	2414	119	2655	131
1958	9442	132	10386	145	2815	139	3097	153
1959	9544	133	10403	145	2910	144	3172	157
1960	10745	150	10530	147	2795	138	2750	137
1961	12118	169	11269	157	3098	153	3071	152

TABLE 5
Indices of Wages and Salaries per Labour Year at Current and Constant Prices, and Wages and Salaries as Percentage of Gross and Net Products for All-India

Year	Wages and Salaries per Labour Year (W/L)				Wages and salaries as percentage of	
	Current price		Constant price		Gross product (W/P × 100)	Net product (W/P ¹ × 100)
	Actual (Rs.)	Index	Actual (Rs.)	Index		
1951	971	100	971	100	13.55	47.99
1952	1089	112	1285	132	15.46	52.30
1953	1125	116	1294	133	16.10	49.24
1954	1069	110	1283	132	14.71	49.75
1955	1107	114	1462	150	14.80	48.16
1956	1121	115	1301	134	13.26	45.80
1957	1132	116	1245	128	13.09	46.54
1958	1371	141	1495	154	14.53	48.71
1959	1384	142	1439	148	14.50	47.56
1960	1481	152	1451	149	13.78	52.97
1961	1599	165	1519	156	13.19	51.61

NOTES AND REFERENCES

1. This has relevance since economic development is a social process which results in a cumulative increase in levels of consumption and if levels of consumption are to rise, real national income must grow faster than population, the real national income being a function of the size and efficiency of the labour force and quality and quantity of capital stock and efficient utilisation of both labour force and capital stock in the country where the labour force means any type of activity directed to produce goods and services and the capital stock covers all concrete things directly or indirectly used to produce utility.
2. The gross product or gross output P_{t+1} of industrial production in India at $(t+1)$ the year was deflated by the index L_{t+1} of 'manufactured goods' (finished products) and the increment in the value of capital stock $C_{t+1} - C_t = \Delta C_{t+1}$ was deflated by 'general index' P_{t+1} ($t=1,2,\dots,10$) and in both the indices 1951 was used as base year.
3. Multicollinearity as a tendency of different economic time series to move together in the same trend is likely to be present between capital and labour in the production function. While fitting the production function by the method of least squares we have made no attempt to eliminate the effect of multicollinearity.
4. Professor Cobb and Douglas from the indices of production, labour and capital in the manufacturing industries of United States for the years 1900 to 1922 evaluated the production functions as

$$P = AL^{0.75} C^{0.25}$$

5. The population in India increased from 359 million to 439 million or by nearly 80 million between 1951 and 1961. That is the population increase during the period at a geometric growth rate of 2 percent per annum.
6. Due to stability of net output to gross output ratio, or its complimentary part input to output ratio, Cobb-Douglas production function may be fitted either to gross output or net output and the exponents of labour and capital would remain same in both the cases.
7. The increase in population may be affected by (i) increase in birth rates, and (ii) improvement in health measures. In the first measure there is a lag in increase of effective labour force for a few years whereas in the second measure the ratio of labour force to population may be increased or decreased according to the age group affected by health measures.

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K. MUKERJI

Problem of Structural Break in Econometric History

CONSIDERING the frequency of explicit, but more often implicit, reference to the problem of structural change, the matter has not received as much attention as it could have. The economists who have continuously bothered over some of the issues arising out of the substantive question, were slow in specifying their requirements about the continuity of observations. The fact is that though the problem remains very much there, until the question of continuity is considered specifying in relation to one or more time series it tends to remain vague and implicit and, therefore, does not receive adequate attention. It is no wonder that references to structural change are to be found most specifically in the economist's view of time series measurements of economic phenomenon attempted by applied economists and/or economic statisticians, and that such references would mostly be implicit, as arising out of general objections to the attempted measurements.

The debate has most often taken the form of objections to attempted efforts by economic statisticians to extend statistical measurements backwards, that is, to extend the length of the series in an effort to analyse the nature of various types of fluctuations that may characterise it. The argument usually takes the form that no purpose is served by extending the series backwards because what is relevant is the magnitudes now and in the immediate future. The conditions in the past may have been substantially different and, therefore, nothing can be known about the present or immediate future in terms of the distant past. In other words, an economic time series can only be of a specified length. Efforts to extend it would be defeated by structural breaks in the series. The economists' emphasis is,

therefore, on current information.

The desire to extend an economic time series over the maximum length of time, does not necessarily emanate from an urge to quantify history. The urge reflects the difficulty that economic observations being invariably discrete and nonreplicable, the observations in even a fairly long series are much fewer than desirable. In general, it is not possible to remedy the difficulty by intensifying observations within a finite period, as is possible, for instance in mechanics. In principle, the path of an aeroplane, though essentially a time series, can be made to have as many observations within a time-span of a few minutes, so as to make such a time series amenable to more satisfactory mathematical analysis. This, in turn, affects the forecasting possibilities in terms of such studies.

Besides, the economic statistician is not specifically concerned with the pastness of any event. This is because all measurable data and, as a matter of fact, must by their very nature, relate to the past. To such an investigator, the distinction between the past and the current is unreal and arbitrary. He is concerned with what he regards as the more real question, namely, how past is distant past. And in this he has come up with the answer that distant past, in respect of a time series is that part of it which is separated from the immediate past period by the existence of a structural break. He is, therefore, concerned with answering the question what specifically constitutes a structural break.

The statistician qua statistician has not been very much concerned with the problem of structural breaks. Standard books on statistics dealing with time series do not usually refer to structural breaks. Even a standard classical treatise on analysis of time series like Davis¹ does not specifically refer to the problem. From this it should appear that the subject is not important from the stand point of statistical analysis itself. The problem, therefore, belongs to the domain that it studies rather than to the instrument as such. It follows that there are no structural breaks as such and their existence, when they do exist, has to be understood and interpreted in the particular context or family of contexts.

It seems that the problem of structural change can be studied from two distinct stand-points. In the first place, it can be studied from the stand-point of mechanics. If the time series under analysis are conceived as readings in respect of the centre of gravity and the four corners of a rigid tetrahedron in movement, the family of time paths are given by the equations of motion and the initial position. The readings, though continuously changing, would be completely determinate. If, and only if there is a change in the equation of motion that it can be said that there is a structural change. Structural changes can, however, take place either in the motion of the centre of gravity or motion about the centre of gravity or both.²

This way of looking at the problem of structural break provides the key to a certain type of classification. Depending on whether the change relates to the equation of motion of the centre of gravity or in respect of the motions about the centre of gravity it is possible to indicate fundamental, primary and secondary structural changes. According to this analogy, when the equations fit the data prior to an interval but does not do so subsequent to it, a fundamental structural change is to be discerned. Similarly when there is change in the primary structural forces there will be a change in the co-efficients of the explaining variables. A change in the primary structural forces may be either accompanied by a change in the secondary structural forces or not.

The matter can also be visualized in another way, that can perhaps be called the stand-point of mathematical or statistical technique. In the literature a distinction is made between models and structures. An econometric model is a set of relationships between a specified number of variables put in a manner that enables the estimation of the parameters in respect of the individual sequences in the system. When the parameters are specified, it is said to represent a structure. Seen thus, an econometric model is, therefore, a family of econometric structures. From this stand-point one could make a distinction between structural breaks and model breaks in considering long period movements.

In the simplest case, for instance, when national income is x_t and consumption y_t , the model may consist of a single equation of the type :

$$y_t = \alpha + \beta x_t + \epsilon_t \quad (1)$$

Where ϵ_t is the error, variable with a normal distribution with 0 mean and variance σ^2 while t is the time subscript applicable over period 0 through T . In this case, there is neither a structural break nor a model break. A structural break would be given by sequence which is better described by an equation of the type $y_t = \alpha + \beta_1 x_t + \epsilon_t$ upto a point T and $y_t = \alpha + \beta_2 x_t + \epsilon_t$ beyond that point. On the other hand a model break may be specified in case an equation, say, of the type

$$\log y_t = \alpha + \beta \log x_t + \epsilon_t \quad (2)$$

fits the data better, beyond a specified interval when the other equation specified in (1) above is a better description of the data prior to the interval.

In between it seems it is possible to introduce the concept of structural change, if the equation can be shown to be of the form

$$y_t = \alpha + (\beta_0 + \beta_1 t) x_t + \epsilon_t \quad (3)$$

It should be noticed, however, that if T is considered as an exogenous variable then the dynamic element in the structure becomes incorporated into the structure itself. Thus smooth dynamic structure can be seen to be the same as static structure with super-imposed change. Under the circumstances, structural break as against structural change has to be specified as

$$y_t = \alpha + \beta_i x_t + \epsilon_t, \quad t = i, \dots, T' < T$$

and

$$\alpha + \beta_i x_t + \epsilon_t, \quad t = T + i, \dots, T$$

The basic difference between the two ways of visualising the proposition appears to be this that in the rigid tetrahedron imagery, the equation of the path of the centre of gravity has a greater significance in respect of the time path traced by the body, whereas in the model analogy the explanatory variables, which presumably correspond to points at the angle of the tetrahedron are considered to be the detriments of the so-called centre of gravity. Therefore, the continuity of the model becomes more significant leading to the judgment that a model break is really a more fundamental kind of break.³

Such an abstract representation, however, is useful and tractable only when the structures and models specified by smooth functions are valid or applicable in respect of a specific situation. It follows that they are more likely to be useful in the context of a group or class of phenomena rather than for individual or specific phenomenon. When a phenomenon is continuously changing over time the conditions under which structures and/or models hold for a long time, may not be easy to come by. In fact, the observed changes may be such that the use of continuous functions themselves may become unsatisfactory.

The difficulty of approaching the problem from the purely statistical stand-point is, however, that an enormous amount of computation has to be done before the point at which the structural breaks are supposed to have occurred can be located in a series. The labour involved can be simplified if prior information can be utilized to locate the approximate point of break. When such a break is entirely obvious, say, in 1937 and 1947 for national income series for India on account of separation of Burma and Pakistan,⁴ it does not make such sense in locating it statistically. In a large number of other cases, however, when the intuitive judgment may be equally strong in favour of the existence of a structural change, no quantitative change may, in fact, be observed. On the other hand, clear structural changes can be observed without any apparent or prior justification being there. The matter is, therefore, never quite simple.

The statistician is concerned with the exact method of finding out the existence of a structural break involved in location. The broad considerations that are involved in location and estimation of structural break have been given in Appendix I. What concerns the discussion here is more the underlying issues as to why and how structural breaks occur. In an intriguing way, an adequate consideration of this problem involves consideration of the different degrees of complexities of the quantitative data relating to the past. From this stand-point it becomes possible to talk of different types of time series depending on the manner in which they are affected by the

problem of structural break.

To begin with the simplest case, an extremely simple time series, of say, paid-up capital of joint stock limited companies in India would have a total break at the 1870 because, the classificatory concept was relevant after a particular date and totally irrelevant before it. Information directly dependent on the area relating to pre and post partition of India has similar breaks in 1947. A series representing capital employed in business would, however, have no such discontinuity in the 1870s. Measures not involving area may similarly not have any break in 1947 if the area histories had not been significantly different. Series of per capita income or unit price of specific commodities with extensive use, thus tend to show fairly great stability even through periods which are apparently affected by changes.

It seems that these findings have something to do with the simplicity or otherwise of the model. The more complex the system of explanatory variables are in a model the more unlikely that the system would remain unaffected over long periods. This is only partly a question of availability of data, though the question of availability tends to dominate many specific issues. A study of rice price in Bengal, for instance, indicates two structural breaks round 1856 and 1942.⁵ A more complex model relating output, amount traded and prices may, however, turn out to have many more discontinuities because, the factors affecting prices have kept on changing historically, even though the price series may not show it. Thus quantities exported from Rangoon and price at Madras may turn out to be important explanatory variables during different periods without however affecting the continuity of the principle measure. It may be argued in this context that such time series representing as per capita income or gross national product for a given region cannot have any structural break. Such a series can, however, undergo structural changes as indicated earlier.

Following the same line of argument a composite price series for India may show much greater stability than a series of rice prices in Bengal, both in respect of area changes and changes in respect of statistically significant explanatory variables. Similar may be the experience with such an aggregate measure as per capita national income. The continuity of the latter may be contrasted with the obvious discontinuities involved in a growth model relating to per capita income say, the rate of investment, magnitude of the net surplus in international trade and size of government expenditure. The model can, of course, be made more or less complicated, depending on the explanatory variables that one has in mind. The issue obviously leads to a choice between a shorter complex model and a longer non-complex model.

The criticism very often be made that a shorter complex model tells us something about the nature of the movement while the non-complex longer

model does not tell us anything at all is unfortunately not based on sound reasoning. In the first place the matter is essentially one of degrees rather than of kind. Secondly, if the so called explanatory variables are of approximately the same degree of abstraction as the variable explained, the complexity of the model would not necessarily lead to substantial gains. The only advantage with seeking a complex model is that some of the explanatory variables must be amenable to a greater degree of social control than some others as also the major explained variables in the system.

While the quest is satisfactory, the actual alternatives very often are not important. In a great many cases, the emphasis comes merely from a priori position in favour of one position or the other. A variable that is regarded as an exogenous or controllable or both from a short period point of view of the explanatory variable or even the explomant, when a longer period is taken into consideration. This is typically illustrated by the possibility of using investment or capital formation as an explanatory variable in a short period complex model. In the long period investment may, of course, be functionally related to the level and the changes in the national income itself. The so-called explanatory exactness of the complex model in some cases, therefore, is often unreal.

What makes this analysis interesting is the interdependence of the relationship between investment and income, whatever may be its form must be expected to be written into the time path of a national income series. If analytically, income is changed by investment, then the time path of a national income series would be different as compared to what it would have been if the reverse held good. Given sufficiently long series, it should, therefore, be possible to conceive of econometric models that would be testable in some sense, in terms of such single composite readings themselves. It has to be considered, however that it operates only in one direction in that it can only reject models inconsistent with the reality. The method cannot throw up criteria by which alternative explanation can be tested. It can, however, be argued with some plausibility that in many cases such alternative explanations are often not real alternatives at all.

If this possibility is real then the fusion between economic and econometric history holds up genuine promise of meaningful exploration that should be able to take the intuitive judgments about structural breaks in its stride. Nor need the question be posed in the either or form in so far as short complex models and long simple ones are concerned. The logic of the investigation does not seem to be loaded in favour of the former. In a great many of the cases, what may be considered as the external characteristics of a time series may hold out much greater possibilities than is very often accepted. The issue is not that such external characteristics of composite time series are not affected by structural breaks, but that they are likely

to be characterized by many fewer ones so as to make their analysis meaningful.

APPENDIX

Estimation of two types of structural breaks is considered here. For the sake of simplicity, only one equation linear (in parameters) model alone has been taken up. The generalization to linear simultaneous equation models is possible and would be considered separately :

Let the one equation model be given by :

$$y_t = \sum_{r=1}^k \alpha_{rt} x_{rt} + \epsilon_t \quad t = 1, \dots, T \quad (1)$$

where x_{rts} are exogenous variables inclusive of the time variable and the constant variable ϵ_{ts} are mutually independent error variables mean zero and variance σ_t^2 . Then the two types of structural breaks considered are :

(i) $\alpha_{rt} = \alpha_{r1}, \quad t = 1, \dots, T_r'$
 $\alpha_{r2}, \quad t = T_r' + 1, \dots, T$
 and (ii) $\sigma_t^2 = \sigma_1^2, \quad t = 1, \dots, T''$
 $= \sigma_2^2, \quad t = T_r'' - 1, \dots, T$

A combination of (i) and (ii) and generalization to the case of more than one break in the period (0,T) is possible. If T_r' or T'' is known, then dummy variables Z_{r1}, Z_{r2}, n can be introduced in the regression equations. Z_{r1}, Z_{r2}, n are to be defined as :

$Z_{r1} = 1$ if $t \leq T_r'$
 $= 0$ if $t > T_r'$
 $Z_{r2} = 0$ if $t \leq T_r'$
 $= 1$ if $t > T_r'$
 and $n = 1$ if $t \leq T''$
 $= 0$ if $t > T''$

The regression equation then becomes

$$y_t = \sum_{r=1}^k \sum \alpha_{rs} x_{rt} Z_{rs} + \epsilon_t n \quad t = 1, \dots, T$$

When $T'' = T$ or there is no structural break in the error term, then the simple least square estimates of the parameters can be obtained. If $T'' \neq T$ but σ_2^2 / σ_1^2 is known, the generalized least square estimates of the para-

meters can be obtained. If $T'' \neq T$ but σ_2^2 and σ_1^2 are not known, then simple least square estimates of α_{rs} can be obtained and then σ_1^2 and σ_2^2 may be estimated, and with these estimates of σ_1^2 and σ_2^2 generalized least squares estimates of α_{rs} may be obtained. This procedure may be continued till the estimates obtained stabilize.

The generalization of this procedure to multiple breaks and dependence in \mathcal{C}_s when the correlation matrix R of the \mathcal{C}_s for the time period 1 to T is known and remains the same. If R is known except for one or two parameters, then the usual method used for estimating α_s and the parameters in R may be used. It is evident that the break in the parameters in R may also be handled by the same methods provided the point of the break is known.

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M. MUKHERJEE

Long-term Changes in the National Income of India since 1871

It is generally admitted that national income and per capita income expressed at constant prices furnish very useful single measure of the economic growth of a nation. Economic growth is a complex phenomenon and its proper comprehension would require knowledge of its various aspects. Thus, for a clear grasp of the process of economic growth, it is perhaps desirable to use a multiple measure of growth rather than a single measure. However, when we use a multiple measure, it is generally not possible to say whether the situation at time point A is better than that in time point B, because some of the elements of the measure may show improvement while others may show a deterioration. Since it is desirable to have a unique measure enabling one to generally assess whether a nation has progressed or not, it is necessary to strive for this.

As we have mentioned, aggregate and per capita real national income, are supposed to be the best among such possible unique measures. It obviously follows that not all of the complexity of economic development is represented by the measure. We have to sacrifice various details about the richness and variety of the process of growth when we choose a single measure to represent it. However, various distributions and breakdowns of national income and allied aggregates, provide many additional details about the process of economic growth. The measure chosen thus is such that it has several logically consistent components and it is possible to study the changes in the composition of the components over time. Thus placing reliance in national income statistics in the present context is far from depending on a bleak and uninteresting single measure. The aggregate income and its components are

intimately linked with the process of development going on in the country. As such, it will probably be correct to depict the procedure as one of using a multiple measure, the elements of which are such that it is possible to obtain a single measure out of them. But even this procedure cannot naturally cover all the aspects of economic growth and many variables outside the realm of national income statistics, both quantitative and non-quantitative, could be used in the study. But if this is done, the elements used are heterogeneous and remotely interlinked, and it is not possible to derive any single measure based on the elements in a logically satisfying way. For this reason, we have concentrated on national income data and made little use of other information apart from some general demographic particulars.

Since the days of Dadabhai Naoroji, many research workers have worked in the field of national income in India. Most of the investigators in the past were interested in getting an estimate of national income at one or two particular points of time. Thus, they were concerned with the level of national income at a point of time rather than with its rate of change over time. We have called this class of estimates, *point estimates*. Recently, however, some research workers were concerned with the growth of real income in India and a handful of papers are available on the subject. Their work can conveniently be described as work on *series estimates* of national income. The work on series estimates is naturally more relevant for our purpose. However, the work of this class of investigators relates to the present century and does not cover the last century. Further, in general, the work on series estimates has not been as meticulous or as comprehensive as some of the well-known pieces of work on point estimates in the country. Stronger conclusions about our economic growth will emerge only when there is more systematic research work in this field. But even the available studies enable us to formulate certain reasonable generalizations about the rate of growth of the Indian economy.

The object of the present paper is to describe briefly the pattern of growth of national income in India during the period 1871 to 1961 by making use of all available estimates prepared by various research workers. Apart from presenting our findings on the rates of growth of national income and per capita income, we propose also to make suggestive remarks about the changes in other distributions of national income as well. A fair amount of data on our rate of growth have been summarised in a paper by the author,¹ but the information available on the changes in the distributions of national income is entirely inadequate. Our remarks about certain shifts in the distributions will, therefore, be somewhat speculative. In fact, a part of our treatment should not be regarded as observations based on quantitative information but as a discussion of consequences of making certain plausible assumptions about some aggregates and parametres. This type of analysis is

useful as a prelude to more substantial quantitative enquiries.

The central point of our interest is the growth of national income and per capita income. The rates of growth of national income and per capita income can be obtained on the basis of a study of two magnitudes : national income and population. Further, for comparability over time, the income estimates have to be translated to some constant prices. For this, we must have some data on the movement of prices in the country. Annual geometric rates of growth of the relevant magnitudes are given in Table 1 below.

TABLE 1

Annual Rates of Growth of National Income, Population and Per Capita Income

Period	No. of years	Annual rates of growth of		
		National income	Population	Per capita income
1870-1960	90	1.40	0.81	0.59
1870-1900	30	0.90	0.41	0.49
1900-1961	60	1.67	1.02	0.65

The long period rate is seen to be about 0.6 percent per year for per capita income in real terms, the first 30 years of the period depicting a slightly lower rate (0.5 p. c.) while the last 60 years a slightly higher rate (0.65 p. c.). The rate in the present century, however, reduces to only 0.5 p.c. if we take the period 1900-1950. The relatively higher rate for the period 1900-1960 thus is entirely due to the better performance of the nation after independence. While these were the long period rates, there were shorter periods of more rapid advance, stagnation and decline. The notable periods of rapid advance were 1870-1885, 1900-1925 and 1950-1960. On the other hand, 1885-1900 and 1925-1950 were periods of stagnation and decline.

We use real per capita income as an indicator of both average productivity and average consumption of the population in a rough way. But when we think of average productivity, it is better to make use of the labour force rather than the population in the denominator. In other words, net output per member of the labour force is a better measure of average productivity than net output per capita. It is, therefore, necessary to study the movement in the labour force over time simultaneously with the movement of national product in real terms. We have already presented our estimates

of the rates of growth of national income and per capita income for the period under consideration. It is more difficult to work out a series of net output per worker for the entire period and obtain the rate of growth because of lack of data. But data are available for a large part of the period, i. e., for the present century, though even here the estimates of labour force suffer from certain definitional heterogeneity. The large reduction in the share of labour force in population during the period 1901-1951 as one obtains from the Indian census sources² is unlikely to be a true reflection of reality, and probably has arisen out of changes in definitions used in the successive censuses. But if there is some reduction in the share, it follows that the growth of product per worker must have been somewhat larger than the growth in per capita real income. This suggests a slightly better rate of growth of average productivity per worker than per capita income.

In India, we do not have any series giving the flow of goods to the final consumers for the major part of the period under consideration. A series for this can easily be constructed for the post-independence period both on the basis of official national income statistics and on the basis of the National Sample Survey estimates of household consumption expenditure given in various reports of the survey. Recently, some tentative estimates of capital formation for the period 1900 to 1947-48 have been prepared³ and one could get a rough idea of government consumption from the available data on aggregate expenditure incurred by the public authorities. Thus, it is possible to prepare a rather crude series giving the flow of goods to the consumers for this period. For the period 1871-1899, it is possible to get rough estimates of government consumption in the same manner. But since estimates of capital formation are not available, the rates of investment have to be guessed in the light of figures relating to more recent times. If we proceed in this manner, we observe that the rate of growth of aggregate private consumption expenditure was somewhat lower than that of aggregate real income during 1870-1960, the former rising by 3.1 times against a 3.5 times rise of the latter. The difference, however, was much smaller for the period 1870-1950 during which the aggregate and per capita consumption expenditure in real terms moved at rates only slightly lower than the corresponding rates obtained by the aggregate and per capita real income.

If we assume that the pattern of consumption⁴ in India in 1870 could be represented roughly by that of the rural population in India in 1960-61 with a level of per capita consumption expenditure identical with the per capita consumption expenditure of the general population in 1870, we observe that the rough tripling of the aggregate consumption expenditure was accompanied by a little less than five-fold increase in the consumption of non-food items, a 2.5 times rise in food expenditure and just a doubling of expenditure on cereals. Since the Indian population also roughly doubled

during the period, this shows that the Indian population in 1870 did not suffer in comparison with the population in 1960-61 in average cereals consumption and their improvement during the period was very moderate in the food front. Only in clothing and other non-food items, there was some progress in per capita consumption during 1870-1960. In other words, the average level of cereals consumption in 1870 was dimensionally similar to the level in 1960-61, the average level of food consumption was only slightly lower, but the average level of consumption of non-food items was considerably lower in 1870 compared to 1960. These conclusions are based on an assumption about the consumption pattern in 1870 which need not at all be true. Still, our speculations here are of some interest, because they suggest a certain pattern of change in major components of consumption that could be tested on the basis of further empirical work.

The next point of interest is the distribution of national income by industrial origin. Many details about this for the post-independence period are available in the official national income statistics which furnish industrial distribution by 14 categories at current prices and by 4 categories at constant prices. For the earlier period in the present century, it is possible to work out broad industrial distribution on the basis of data given in Sivasubramonian's thesis⁵ and also in a paper by K. M. Mukerji.⁶ For the period 1871-1899, there is no series on industrial distribution of income. However, Naoroji's estimate⁷ for 1868 and Atkinson's estimate⁸ for 1875 and 1895 can be adjusted giving certain bench-mark figures roughly comparable with the figures for subsequent period and estimates for the intervening years can be interpolated by making use of certain approximate indicators.

The main findings of this analysis can be summarised as follows. During the post-independence period, that is between 1948-49 to 1964-65, the share of agriculture and allied primary activities in the net national product shrunk from something like 50 p. c. to about 42 or 43 p. c. when reckoned in real terms. The share of secondary activities, i. e., manufacturing both large and small scale and mining, did not improve at all and maintained a share of about 16 or 17 p. c. All remaining activities comprising the so-called tertiary sector, improved their share from about 34 p. c. to 41 p. c. During the rest of the present century, the share of primary sectors declined considerably, from about 64 p. c. in 1900-01 to 1904-5 to only 46 p. c. in 1942-43 to 1946-47 according to Sivasubramonian's calculations. This reduction was compensated by the movement of the share of the secondary sector from 13 p. c. to 17 p. c. and of the tertiary sector from 24 p. c. to 37 p. c. Based on a study of Atkinson and Naoroji, my surmise will be that the share of the primary sector was about 70 p. c. in 1870 and 65 p. c. in 1885, the share of the secondary activities remained about 12 p. c. or 13 p. c. during 1870-1900 while the share of the tertiary sector increased from

18 p. c. to 24 p. c. Admittedly, there is lack of strict comparability between the data used for the periods 1870-1900, 1900-1946-47 and current times. Nonetheless, the broad findings appear to be reasonable. During the period of 90 years, i. e., between 1870 and 1960, the share of agriculture and other primary activities in the net national product reduced from an order of 70 p.c. to about 43 p. c., the share of secondary activities increased slightly from 12 p.c. to 17 p.c. and the share of tertiary activities jumped up from about 18 p.c. to about 40 p.c.

The industrial distribution of national income indicates the relative importance of various industrial sectors producing national income. Consequently, a time series of this distribution furnishes details about the changes in the industrial origin of production in the country. If we have data on industrial distribution of the labour force along with the industrial distribution of national income, we may work out a measure of inter-sectoral disparity of average incomes. Under the normal circumstances and on the supposition that movements in intrasectoral disparities would not be dimensionally large, the presumption is that this measure and a measure of inequality of the size distribution of personal incomes would have similar trends. Data on the industrial distribution of labour force, however, are weak even for the post-independence period. For the rest of the present century, some estimates are available in Sivasubramonian's thesis as well as in a paper by Kalra already referred to. For the period 1871-1899, Atkinson's estimates for male labour force could be used as bench-mark figures and estimates for other years could be obtained on a rough and ready basis. The main finding of this exercise is illuminating. When incomes are taken at constant prices, we obtain some increase in inter-sectoral disparity during the period 1948-49 to 1962-63.⁹ Similar calculation based on Sivasubramonian's figures shows that the disparity of size distribution of incomes in real terms increased slowly between 1901-2 to 1921-22 and sharply between 1921-22 and 1941-42. On the other hand, Atkinson's two estimates relating to 1875 and 1895 do not suggest any change in the level of disparity. Taking the period as a whole, the disparity of size distribution of income in 1870 should be considerably lower than that in current times when the incomes are reckoned at constant prices. Since urban areas have higher income disparity today, lower urbanization in the past partly corroborates this finding. This also shows how Indians could manage to live at a substantially lower level of per capita income in 1870's.

In studying the movement of the per capita national product over time and also the shifts in the industrial distribution of national product, it is pertinent to consider the capital outlays apart from the labour inputs. But we have little information in India on the tangible wealth in the past and as we have mentioned earlier, the available estimates of capital formation

for the pre-independence period are extremely weak. Consequently, it is difficult to relate capital intensity with product per worker at the national level. Again for the same reason, it is almost impossible to analyse the role of industrial distribution of tangible wealth as a factor bringing about the industrial distribution of output. All that is possible, in these fields, is to speculate on the basis of certain hypothetical estimates. For example, the tentative series of capital formation considered by us earlier can be used to obtain an estimate of reproducible tangible wealth (RTW) in 1900 by applying a perpetual inventory method on the capital stock estimates available for the post-independence period and the size of stock thus obtained can be related to the income of the country at the turn of the century.

The available historical series of capital formation at the national level is given gross, and a reasonable assumption can be made to obtain a series of net investments in the country for the period 1900-1950. An independent series of estimates of net capital formation in the public authority sector given by Thavraj¹⁰ can be used to check the dimensions of the estimates of investment obtained in this manner. But even with a reasonable assumption about the dimension of the capital output ratio in 1900, the analysis suggests that the RTW of the country in March 1950 should be somewhat higher than about Rs. 17,000 crore obtained by Mukherjee and Sastry.¹¹ Further, it appears that there has been some increase in the RTW/output ratio during the period. In one of my recent papers, I have hinted that there could be an opposite tendency, i.e., RTW/output ratio could be slightly higher in the past.¹² But the present analysis goes against my earlier contention. Next, if our series of net investments is extended to 1870 more or less hypothetically, the suggestion again is that RTW/output ratio was probably still lower in 1870. In fact, the investment series used by us is consistent with RTW/output ratios of about 1.5 in 1870, 1.75 in 1900 and much more than 2 in 1950 against a ratio of slightly less than 2 suggested by Mukherjee and Sastry's paper. Of course, the position is different when we take land into account and use tangible wealth/output ratios. These ratios are likely to be higher in the past, but their rate of decline over time will be less than what I anticipated earlier. However, if we regard the historical series of capital formation we have been using as generally over-estimated, or, in other words, think in terms of very low rates of net capital formation in the past, then our existing notions about the dimensions of the capital stock and capital output ratio in the country relating to the current period could prevail.

For studying the changes over time, estimates of national income and its components have to be expressed at some constant prices. Ideally, we need not only a deflator for the overall income estimates but also appropriate deflators for its several components. Adequate material for this is available only for the post-independence period. But even for this period, the overall

and sectoral national income deflators do not appear to be consistent with the basic price series in the country.¹³ For the rest of period, all we have got is a wholesale price index number of a reasonably wide coverage as well as a cost of living index number for a part of the period for working classes residing in certain localities in India. Apart from this, we have several price series generally relating to the wholesale market, and these series could probably be pressed into use. Thus, the price material though available is far from adequate and have not been analysed and summarised for the purpose in view. Luckily, apart from our findings about the rate of growth of income where our use of a simplified deflator is relatively more justified, the other conclusions relating to the structural shifts in the various distributions are not materially affected by the weakness of the deflators. While this remains our justification of the simplified procedure, it is important to be able to construct better deflators and test our findings on the basis of more detailed work.

After the national income is produced, it flows to the several primary factors of production : labour, capital, land and entrepreneurship, the returns of which are respectively wages and salaries, interests, rent and profit. The distribution of national income by these factor shares tells us how the relative importance of several factors of production has changed over time. We have distinguished only three shares here : wages and salaries, income from assets comprising interest, rent and profit and income of unincorporated enterprises being the added value of activities in which it is impossible to distinguish between the returns of labour and capital assets. Unfortunately, we do not have any estimate of distribution of national income by factor shares except for a part of the post-independence period,¹⁴ and these estimates are given at current prices. Thus, it is not possible to obtain a long time series of this distribution covering the period in which we are interested. Under the circumstances, all that can be done is to speculate on the probable shifts in the shares in the past on the basis of the information on the structure of the distribution in the recent period. Since we know the factor shares within broad industrial categories in the national product, we can guess the proximate pattern of factor distributions in the past on the assumption of invariability of factor distributions within broad industrial sectors. We have used only two industrial categories, agriculture and rest of the economy, for our calculations. The results are interesting. Our estimates depicted a rise in the share of wages and salaries from 22 p. c. of national income in 1870 to 24 p.c. in 1900 and 30 p.c. in 1957-58. In contrast, the share of the income of unincorporated enterprises reduced from 58 p. c. in 1870 to 56 p. c. in 1900 and to about 45 p. c. in 1957-58. The share of income from assets, however, showed somewhat smaller change over the 90 years period and increased from 20 to 25 p. c. of national income.

We have had occasion to mention earlier the flow of goods to consumers and capital formation. After the factors of production receive the income shares, these incomes are used for final expenditures : consumer expenditure and capital formation. Apart from the final expenditures by households and rest of the private sector some consumption and capital formation are undertaken collectively, that is, through the mediation of public authorities. Thus, ultimately we could distinguish between four types of domestic final use of the national product : private and public consumption expenditure and private and public capital formation. These flows together with the net lending or net borrowing of the nation from abroad add up to the aggregate unduplicated output of the nation when the capital formation estimates are reckoned net. Our earlier discussion generally centered round the aggregates of consumption expenditure and capital formation and we did not consider any details about the internal composition of these flows. Data on these compositions are available only for the post-independence period and are woefully lacking for the past. It should, however, be mentioned that there is a series on public authority capital formation since 1900 worked out by Thavraj as we have already mentioned. Also the series estimate of capital formation recently worked out gives a breakdown of the aggregate between construction and producer's durables. In view of the meagreness of data, we do not propose to dilate on the topic here. A possible line of study could be on the basis of an analysis of the movement of output of certain individual commodities. One may try to infer from these shifts whether there has been some change in a specified share of an aggregate. Thus, if we succeed in showing that the value of output of cloth has shown a larger percentage rise than the total consumption expenditure, the suggestion is that there was some increase in the share of clothing in real consumption expenditure. This is in spite of the fact that cloth could have several non-consumption uses. It follows that inferences of this type could only be suggestive.

One major flow we have not been able to cover in this paper is the flow of funds across the boundary of the country. It is of interest to study not only the trading balance of the country but also the balance in the movement of capital. In India, we have good deal of material, both statistical and analytical, on the balance of trade. Some amount of material is also available on the balance in capital movements. But we do not have any accurate estimates on the changes in the net claim of the nation against foreign countries. This is partly because of the fact that no comprehensive analysis has been undertaken on British investments in the country and the so-called "drain" of the country by way of home charges,¹⁵ etc. The large hoardings of gold and silver, for which a long series has been worked out by Vinod Prakash¹⁶ crop up as a further complicating factor when we try to relate the internal savings in the economy with the net domestic capital forma-

tion. Any historical analysis of the flows across the boundary of India is further complicated by the fact that the boundary of India itself changed over time. For our earlier results, since the ceded parts and the new parts which were being added, were not dissimilar to the parts within the existing boundary, a reasonably valid analysis of the dimensions is possible on a per capita basis, and we have adopted this procedure. The estimates of components of national income and allied totals used by us relate to the present day Indian Union area. Such estimates, however, are affected not only by the regional heterogeneity but also by the flows across the boundary. The subject thus needs further attention. Since a fair amount of data exist on the topic, its omission from our discussion is a serious shortcoming. This could have been avoided, however, had it been possible to devote some more time to the paper.¹⁷

In conclusion, it should be pointed out that what we have attempted in this paper is to give an idea of the possible lines of research that would help us to construct a quantitative image of the economic growth of the country based mainly on national income and allied information. We have no doubt furnished some results here and there based on earlier studies. But it should be stressed that more thorough and detailed work is possible in many of the suggested fields, and such work may yield results contrary to the surmises given in this paper. But this process is important and it is only through a process like this that we can hope to get a better understanding of how our economy developed in the past and why we followed a particular time path of development.

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PART THREE
DISCUSSIONS

Chairmen

Professor Nirmal Kumar Bose
Dr. O. P. Shrama
Dr. A. N. Pandey
Dr. Indra Deva
Dr. K. N. Sharma
Professor V. B. Singh
Professor B. M. Bhatia
Professor Arun Bose

Rapporteurs

Mr. Debkumar Dutta Mazumdar
Miss Supriya Singh
Mr. Asit Bhattacharyya
Dr. Nilmani Mookerjee
Mr. Pranabranjan Ray
Dr. Pradip Sinha
Mr. Chittapriya Mukhopadhyay
Dr. Amalendu Guha
Mr. Arun Coomer Bose
Dr. J. P. Singh Uberoi

SECTION A

Background

DURGAPRASAD BHATTACHARYA, Socio-Economic Trends in India

Discussion

A number of participants were of opinion that the paper by Mr. Durgaprasad Bhattacharya revealed a darker side of the picture, it failed to record the changes due to progress of education, secularism, peasants and workers' movement, progressive legislation and growth of intelligentsia. One participant mentioned that there had been too much emphasis on economic trends in West Bengal and on agriculture of the country, while another participant mentioned that there should be an analysis of regional trends. Another participant enquired whether social changes could be measured. It was also suggested that consumption pattern changed for the better.

In reply, MR. DURGAPRASAD BHATTACHARYA said that he was conscious of the limitations of the paper, but some indicators were required. Agriculture was the key indicator. In spite of sectoral growth, the overall trend was not very hopeful.

DURGAPRASAD BHATTACHARYA }
ANIMA BHATTACHARYA } An Introduction to a Select
BIBHAVATI BHATTACHARYA } Bibliography

Discussion

The participants of the Seminar widely welcomed the bibliography. Participants suggested that coverage be extended to cover pamphlets, travellers' account, reports of the foreign missionaries, books in regional languages. One participant suggested that published materials available in

England be also covered. Another participant suggested that while it was important to extend the coverage of the bibliography, it should be published part by part. On a suggestion to include unpublished records, it was mentioned that it was very difficult to classify unpublished records in such a bibliography.

DR. NIHARRANJAN RAY said that the bibliography had been prepared by the authors on behalf of the Institute, and it would be published after necessary addition and the Institute would also bear the additional burden if and when necessary.

MR. DURGAPRASAD BHATTACHARYA admitted that while 5,000 books had been catalogued in the bibliography, some 2,000 books were left out due to shortage of time, and the under-coverage of the bibliography will be made good very soon.

SECTION B

Trend of Population Growth

ASIT KUMAR BHATTACHARYYA, Population Changes in East Bengal: 1941-1961

Discussion

A participant enquired whether changes in age structure could be related to decline in infant mortality. Another participant enquired about the emerging urban places in East Pakistan and wondered whether the so-called under-administration was not related to communication difficulties. Certain historical characterisation of the population density in Dacca division was pointed out by DR. NIHARRANJAN RAY.

In reply the author pointed out that no significant variation in infant mortality had taken place which could explain the change in the age composition of the population. The emerging urban places in East Pakistan are, in general, industrial and commercial centres close to ports (sea or inland). The communication system was uniformly difficult in the eastern districts of the State.

S. B. MUKHERJEE, Stability and Quasi-Stability as reflected in the Size and Structure of Indian Population: 1881-1961

Discussion

A participant made a reference to a simpler model he presented before the International Population Conference at Ottawa in 1963 and pointed out that in the present Seminar more attention should be paid to the analysis of the current population growth rate. A participant enquired if ultimately future population growth depended on birth and death rates and what precisely was the use of such elaborate exercise.

SECTION C

Changing Patterns of Rural Societies and Urbanization, Rural-Urban Inter-relations

SUGATA DASGUPTA, Trends of Social Changes in Villages India

Discussion

DR. V. S. D'SOUZA, while agreeing with the general model of change, suggested that changes within the caste system should be assessed properly. DR. B. K. ROY BURMAN pointed out that renaissance reforms and restriction should be treated not just as products but also as processes, and suggested that the responsibility attached to the so-called constructive work may be explained in terms of our cultural past.

Referring to the author's stress on the rise of new institutions within our rural society, DR. K. N. SHARMA emphasized the need for studying the inter-relations between such new institutions and the traditional ones. MR. DURGAPRASAD BHATTACHARYA said that economic factors such as the abolition of the *zamīndārī* system and other changes in property relations should also be taken into account. Commenting on the author's view that of late there had been a growing dispersion of power in India, he pointed out that concentration of power through organized parties has also taken place.

DR. NIHARRANJAN RAY, however, was of the opinion that the so-called Indian renaissance could not be called a renaissance at all. He further added that the state and society were fast becoming co-terminous and that the so-called village India might lose its separate identity in the near future. He also said that the attitude of Indian villagers towards reform and restriction had also considerably changed. Now they demand those as a matter of right and not as favours. DR. V. B. SINGH, however, struck a cautious note when he said that many of the processes the author had referred to as symptoms of decentralization do often contain elements of disintegration.

Speaking on these comments, the author said that since changes in the

attitudes and outlook of the villagers cannot be properly quantified, the assessment is bound to be more or less impressionistic. Regarding the 19th century renaissance, he said that according to him its processes were confined to the elite of India, but even this process was halted half way under the intense pressure of the political movement which naturally emphasized the emotional rather than the rational content of its approach. Regarding the cry of disintegration, he was of the view that anything that happens today to disturb the status quo need not be considered as a disintegrating factor. There are two positions to be taken in this regard. The first is to acknowledge that we are in the midst of revolutionary upheavals and the techniques adopted for that purpose (*Gheraos*, Government sponsored strikes and floor crossings by legislators) are peculiarly our own and are much more sophisticated and peaceful than those practised in earlier revolutions elsewhere. He also pointed out that the basis of Indian integration was formerly determined by religion and the English language. Now, while those bonds are becoming weaker, new forms of unity are seeking expression. The old concept of a monolithic India which has an over-centralized structure and is a gift of the British raj may in course of time give place to a different concept about India. The concept of India as built by the British was in a sense arbitrary. In fact, the cultural map of India is very different from its present political map. If new India develops a different basis of unity, we should welcome it rather than be afraid of it. At the end he requested social scientists to study the trends of change towards the creation of a new society of which the *Gramdan* movement, which has already covered about 50% villages, claims to be a powerful agent.

BARUN DE, Popularisation of Public Utility Services in Bengal :
Brajendranath De, I.C.S. in Hughly

Discussion

A number of points were raised for historical clarification. Some related to peripheral problems like the extent of the cholera epidemic, others were on the role of the middle class vis-a-vis the government in the provision of urban public utilities. The point which did emerge was the curiously ambivalent position of the I. C. S. officers in relation to the middle classes on the one hand, and the British Government on the other.

INDRA DEVA, *The Changing Pattern of Rural Society and Culture :
Significance of the Rural-Urban Nexus*

&

O. P. SHARMA, *Rural-Urban Interaction Pattern in India*

Discussion

The points raised were methodological in nature regarding the unit and framework of study. It was generally agreed that the whole question of the village as a unit of study had been discussed threadbare in sociological theory. One now needed some conceptual framework for discussing the inter-relatedness of the village with the region, of the rural to the urban society. However, DR. K. MUKERJI and MR. V. K. BAWA pointed to operational reasons regarding the village as a unit of study so that the general consensus of the Seminar was in accordance with the accepted view that one must look for a conceptual framework which can do justice to actual works rather than hypothetical isolates.

H. R. GHOSAL, *Our Rural Society in a Changing Environment*

Discussion

PROF. TAPAN RAYCHAUDHURI pointed to Joshi's work on urban handicrafts suggesting that there was no absolute decline in handicrafts in the 19th century. However, there were three categories of handicrafts which were noted: some declined, some were strengthened, and some declined and strengthened in different aspects. But since there was no absolute decline, it refuted Dr. Ghosal's representation of the popular view regarding handicrafts.

DR. H. R. GHOSAL in his reply to this statement continued to maintain that there had been a decline in cottage industries in the 19th century as a result of the impact of the industrial revolution. He pointed to the cotton manufacturing industries in 1813-1833. Moreover, the loss of foreign markets to the Indian manufacturers also had an adverse effect on cottage

industries. He cited data to the effect that about 1833, approximately 75 lakh to 1 crore of women were unemployed. He concluded by stating that cottage industries in the 19th century did not only decline absolutely, but completely collapsed. He further submitted that our society has yet not been able to recover from the effect.

PROF. NIRMAL KUMAR BOSE objected to Prof. Tapan Raychaudhuri's purely "physical point of view" of the cottage industries. Even if there was no absolute decline in cottage industries, there was a great change in the social composition of the artisan class. By way of illustration he pointed to the astonishing percentage of Brahmans employed in the Bata Shoe Factory, so that one has to view changes in cottage industries from the point of view of social participation.

There were some objections to Dr. H. R. Ghosal's use of the terms 'feudal', 'semi-feudal' and 'new feudal' from PROF. TAPAN RAYCHAUDHURI, and to the use of 'class' from MR. PRANABRANJAN RAY and MR. ARUN COOMER BOSE. DR. O. P. SHARMA came out against some sweeping generalisations in Dr. Ghosal's paper regarding change in rural society. PROF. KARUNAMOY MUKERJI remarked that it would be an over-generalization to say that India as a whole has entered the phase of capitalistic and owner-operated farms as a result of land reforms. Also, we must remember the role of share-cropping which perpetuates tenancy and overlordship by the backdoor. DR. H. R. GHOSAL clarified some of the issues by stating that there had been some change, but these changes had not affected the structure of rural society. Caste bias was still predominant, though he visualized the day when caste would disappear.

HAMEEDA KHATOON NAQVI, *Industrial Towns of Hindustan in the Eighteenth Century*

Discussion

DR. H. R. GHOSHAL questioned Dr. (Mrs.) H. K. Naqvi's statement regarding the introduction of silk manufacture in Benaras in 1770. DR. (MRS.) H. K. NAQVI submitted that there was no contemporary reference to silk manufacturers earlier than the period specified. MR. DURGAPRASAD BHATTACHARYA pointed out that there was a table published in a Parliamentary Paper showing annual trade of India through East India Company. The original

source, he went further, contained surely breakdown by commodities. This, together with the cities and towns mentioned in *East India Gazetteer* by Hamilton (1815) may be taken into consideration for studying the trend of urbanization. DR. (MRS.) H. K. NAQVI replied that she consulted some of the *East India Gazetteer* records upto 1800 and those of the later period were not relevant to her present study.

DR. A. M. SHAH requested a clarification in the rural-urban consumption pattern of commodities. He suggested that there was a considerable consumption in the rural areas of materials from urban areas in the period under consideration. This would lead to a different concept of urban rural relations from the one traditionally upheld.

PRANABRANJAN RAY, *Urbanization in a Colonial Situation :
Serampore, a study in method*

Discussion

Attention was drawn to the implicit model for the analysis of urban growth by DR. A. N. PANDEYA. He appreciated Mr. Pranabranjan Ray's stress on the need for a model on an open bounded character. On being asked by DR. H. R. GHOSAL to note that even before the establishment of the Danish 'factory' in Serampore in 1755, there was another European factory, MR. PRANABRANJAN RAY maintained that even if there was a 'factory' prior to the establishment of Danish 'factory', it was of no consequence to urbanization of Serampore. He conceded Dr. Ghosal's point that the development of Serampore as a trade centre depended not only upon European consumers but also upon the Asian market.

A. M. SHAH, *Study of Changes in the Indian family*

Discussion

The paper raised the theoretical question of the definition of the "family" and "household". DR. NIHARRANJAN RAY came out against the use of western concepts for the study of the Indian family, when one had

adequate concepts like *Pariwar* in Indian theory. He also asked for clarification of the use of "family" and "household" in Dr. Shah's paper.

DR. A. M. SHAH reiterated some of the points made in his paper in reply to Dr. Niharranjan Ray's comments and queries. Regarding the definition of a household, he pointed to differences in its usages in the various censuses of India. In 1951 it was first used to signify a commensal unit corresponding to the term *chula* current in many parts of India. It was in this sense that he was interpreting the term "household".

Regarding the use of Indian terms, Dr. Shah pointed to inadequacies in the traditional concepts of family for a proper scientific and comparative view of family in India. Even if one consults only Hindu scriptures, data on family are restricted to property relations and maintenance, and the ritual aspects of family. It is only if one takes data from the average composition of households and the different types of households in the framework of the concept of the developmental cycle, that one can provide an adequate base line for the study of changes in family structure.

SUPRIYA SINGH, A Metropolitan Concept for India and some American Assumptions

Discussion

DR. NIHARRANJAN RAY questioned the possibility and validity of international comparison of metropolitan areas. MISS SUPRIYA SINGH said that this whole question was broader than the scope of the paper presented. The paper assumed that international comparisons can be useful with a clear recognition of its limitations. MR. A. K. DASGUPTA raised his question by pointing out to other criteria like literacy, the sex ratio, which could be integrated in the metropolitan concept. He also drew attention to further basic data on Calcutta to formulate the concept. He questioned the 65% non-agricultural labour criteria as being perhaps too high for India. MISS SUPRIYA SINGH accepted his suggestion but pointed out that the census of India put 75% non-agricultural labour as a criterion for urban areas.

MR. C. MOWLI and DR. O. P. SHARMA questioned Miss Supria Singh's evaluation of the political role of the metropolis. Dr. Sharma pointed to the urban origin of rural representatives, and Mr. Mowli elaborated on the D. M. K. and its urban projects in the different urban areas of Madras.

MISS SUPRIYA SINGH conceded the fact that her statement regarding the role of the metropolis could have been misconstrued, but the main point which was to be made, was that the metropolis as a geographical unit in electoral terms was not significant, and that even the 'D. M. K. in its manifesto did not particularly appeal, to urban areas. This point was admittedly a matter for further study.

PRADIP SINHA, Urbanization and the Bengali Middle Class

Discussion

MR. DURGAPRASAD BHATTACHARYA pointed out that Dr. Pradip Sinha's paper did not have enough material on the urban middle class. This led DR. PRADIP SINHA to reiterate the scope of his paper. He submitted that his paper was a limited study of the stunted growth of the Bengali middle class, in regard to certain defects in urban class formation. There had been many studies of the growth of Bengali middle class including his own on the Nineteenth Century Bengal. This paper is concerned only with some hitherto neglected aspects of Bengali middle class. He admitted Dr. Sunil K. Sen's positive suggestion to examine the wide prevalence of share cropping in Bengal in relation to its effect on the migration pattern studied.

PROF. NIRMAL KUMAR BOSE: Today we have had a very exciting session when various participants discussed the question relating to rural life in India. Dr. Indra Deva raised a question relating to what should be our unit in the study of changing rural society. Dr. A. M. Shah tried to indicate that the study of the changing character and function of the family should be a useful point to start with. Dr. H. R. Ghosal gave us a wide perspective when he tried to analyse the various changes which he had observed in course of his study of rural life in India as well as of the changes brought about in it by various administrative measures. A very large number of participants have made significant contributions in course of the stimulating discussion which we have had ever since the morning session. My purpose will be not to summarize or repeat any of the points which have been made, but I will try to draw attention to only two points which have been raised in the morning and the afternoon session.

There was much discussion as to what kind of materials we should use for rebuilding the history of the past, so that we could indicate the lines of social change or development which have been taking place in course of the

last 100 years and more. As our study is specifically limited to the years between 1871, let me suggest at this stage that a very important source of studying changes in family structure, property relationship, etc. may be derived from a study of the cases which have been brought up in the High Courts for decision in different parts of the country. A large part of India is under the Mitakshara law while some portions of the east and north-east are subject to the law of Dayabhaga. If one studies the conflicts which have been brought into High Courts for decision and which relate to a large extent to the division of property, to the validity of adoption or marriage, to the rights of inheritance and transfer, etc. over a period of say 100 years, then an enormous amount of materials will be available to use for the study of changes to which society has been subjected in India during that period.

DR. NIHARRANJAN RAY has suggested that epigraphical materials as well as the secular literature of the past like the *Kamāsāstra* or dramas written either in Sanskrit or in regional languages and belonging to a fairly old period may be utilized for similar purposes. I find myself in complete agreement with him on this score. I may also be permitted to indicate that the *Smritis* do not merely describe the norms of Hindu society but also, in many places, describe the deviations which occur in particular regions or in particular communities. A careful study of Mahamahopadhyay Kane's *History of the Dharmasastras* will prove abundantly that the *Smritis*, which were written in different ages and which have also been re-interpreted again and again at different periods of time, contain abundant material for the study of social change. Raghunandan's efforts of reforming Hindu society in the 16th century if rightly interpreted will throw an enormous light not only on what he wanted to make of Hindu society but what Hindu society was like in his time. That period or the period of the earlier *Smritis* are beyond the scope of our present discussion. Yet by a judicious examination of trends in the past we may gain some insight into the changes which have been taking place in India in the more immediate present.

This is point number one. The other point to which I should make a special reference is the one raised by Prof. Tapan Raychaudhuri. In course of the discussion Prof. Tapan Raychaudhuri made a statement that handicrafts have not declined on account of British commercial expansion in India. He has referred to some detailed and very significant studies of the textile industry which have tended to show that during the 18th to 20th centuries there were not only no decline in that craft but the crafts either remained at a stationary level or even expanded to a certain extent in course of the period under review.

If we look at the textile industry or any other industry of a similar nature, as an abstraction, the picture which Prof. Tapan Raychaudhuri has

drawn may appear to be substantially correct. It will lead us to conclude that there has been no movement, that is, stagnation in the art in question. But as a social anthropologist I beg to draw your attention to a fact of great significance to us. The productive organization of caste was built upon the theory that every caste should enjoy a guaranteed monopoly in a particular craft. Nobody should poach upon that monopoly. Caste tried to built up a non-competitive economic system in which different castes by their federation took care of economic functions of society. In a region like Western Orissa where the norms of caste have not been eroded to the same extent as in West Bengal, we observe that there are at least three different castes of weavers who produce different patterns of cloth and who also practise slightly different techniques in production of their wares. They will not poach upon each others preserves even in the year 1958-60. But in Bengal where the traditions of caste have been eroded to a large extent, in a village in the district of Hoogly where there are nearly 1200 looms working even now, the people who earn by way of weaving do not merely belong to the weaver caste but some of them are even widows who belong to the Brahmin caste. They make their living by means of this craft. Bata's Shoe Factory today employs nearly 12,000 workers of whom 10,000 are from Bengal. The workers are divided into skilled, semi-skilled and un-skilled categories. Among the skilled workers, we find a fairly large fraction of people who bear surnames like Chatterjee, Banerjee, Mookerjee, etc. This means that Brahmins in Bengal have taken to weaving, the manufacture of shoes in a factory, or even running a shop for hair-cutting and shaving where the shaving is done by the Brahmin proprietor himself. So that although quantitatively there may be an apparent stagnation in the economic enterprise of the people, yet the people who exercise these arts and crafts may have come not from specific castes but from many castes in contrast to the position we find in a district like Sambalpur in Orissa.

What I am suggesting is that even when the machine of production seems to remain stagnant there are clear indications that the working forces who run these machines have become very much altered in the state of Bengal in contrast to what has happened in Orissa, for example. It would signify very clearly that the norms or value systems and loyalties held have been considerably altered in Bengal while it has not been so in some of the neighbouring States of India. Is this not also a sign of change? Does it also not indicate that the men who take to occupations other than those prescribed by their caste traditions are becoming loosened from their traditional moorings and are now fit to take a place in any occupation which may offer itself to them.

Today when a new system of production based upon science and technology and also dependent upon freedom of choice by the individual is

being built up in India, even the loosening of traditional ties is the sign of progress. If there is substantial alteration in the character of the working forces, then, we need not throw up our hands in despair and say that no change is taking place in the economic sphere. The economic structure and social organization as well as value systems are so closely interlinked with one another that we must cast our eyes widely over the entire horizon in order to ascertain whether a society is stagnant or not stagnant.

This is a submission which I am forced to make in answer to Prof. Tapan Raychaudhuri's observation that from the quantitative point of view the history of handicrafts in India have shown hardly any movement in the progressive direction at all.

SECTION D

Trends of Change in Educational Structure and Pattern

V. K. BAWA, Social and Economic Change in the Godavari
District : 1851-1901

&

ARUN COMMER BOSE, Pattern of Educational Progress
in pre-Independent India

&

B. N. DASGUPTA, Trends of Change in the Educational Structure
and Pattern

Discussion

DR. H. R. GHOSAL : It cannot be historically proved that Gandhi-ji took his idea of Basic Education from Rabindranath Tagore. Gandhi-ji, in fact, had been thinking and writing about Basic Education before he ever visited Santiniketan and met Rabindranath Tagore. Gandhi-ji did in fact set up several Basic Schools, in an endeavour to set an example what national education was, during the days of Champaran Satyagraha. It might, however, be admitted that after his visit to Santiniketan and his meeting with Tagore there, his ideas about Basic Education were enriched.

MR. DURGAPRASAD BHATTACHARYA : Since the days of inception of modern education in India, the precepts and practices and our attitude to education has always differed widely. Lord Mayo once thought of introducing the system of modern education through one's own mother tongue in the villages but it could not be accepted by the native gentry. We are still suffering from the impact of dichotomous attitude that has characterised much of the behaviour of the educated classes in India, since the early days of modern education.

DR. NIHARRANJAN RAY : Gokhale once introduced a bill of compulsory primary education, but unfortunately the bill met with resistance from the then stalwarts of education in India. These stalwarts, though were Indian themselves, did not hesitate to subscribe to Macaulay's thesis of percolation of education from above.

MR. DEBKUMAR DUTTA MAZUMDAR : The plea for integration of the National Laboratories and institutes for higher research in science with the existing universities put forward in Prof. B. N. Dasgupta's paper cannot be supported on the ground that the much needed academic freedom and autonomy of the National Laboratories can be jeopardised and as such these institutions should not form integral part of universities.

DR. INDRA DEVA : Education system is organically related to social system. The kind of education system we want must be related to the kind of the society we envisage. We can profitably introduce Basic Education of Gandhi-ji's conception if we are ready to build up a society based on rural agriculture and rural industries as Gandhi-ji emphasised. Secondly, it is not the function of the education system as such to provide for employment or take into account the question of employment. It is the duty of the administration and the economic system to which education system is an auxiliary part, to deal with the problem of placement and employment of the educated ones. Thirdly, it is difficult to go along with Prof. Dasgupta in his assertion that participation in politics by the teachers and students is a bad thing. It goes against one of the fundamental rights guaranteed by the Constitution. Prof. Dasgupta should have made a distinction between petty factional intrigues and cliques and the bigger issue of national politics.

DR. A. N. PANDEY : It would be wrong to assume that the present confusion in educational matters can be related to the failure of "National Education" which our leaders thought of before the independence. Firstly, because we have not really introduced that National Education, that our political leaders used to think of before the independence. Our's is more or less a continuation of the system of education we inherited from the Britishers, that seeks to perpetuate the vested interest of a group of privileged people. Secondly, it would be wrong to say that all the attempts to build up National Schools met with failure and that this experiment had nothing to contribute towards the future. At a period of transition when attempts are being made to break away from the dominant type of behaviour which had so long held its sway, temporary set backs are quite common in any society.

DR. NIHARRANJAN RAY : In referring to the question of autonomy of the

universities, it should be mentioned that during the British rule, for obvious reasons, the universities had to conform to the dictates of the government, but why should it continue to be so even now ?

MR. C. MOWLI : In Prof. B. N. Dasgupta's plea for greater autonomy of the universities, one aspect should not be lost sight of ; our universities and higher educational institutions have become hot-beds of corruption and nepotism. There should be some check against the corrupt practices of those who hold power in the universities and that check should come from the State which represents the people. The Soviet Union has made tremendous progress in education, although the universities there are controlled by the State.

PROF. NIRMAL KUMAR BOSE : To Mr. C. Mowli, I would like to pose a question as to who appoints the corrupt Vice-Chancellors? Is it not the State ? (Professor Nirmal Kumar Bose then proceeded to elaborate the ideas of Basic Education as propounded by Gandhi-ji and in passing mentioned about the opposition offered to it by the so-called educated people from the upper classes within the Congress and from the Muslim League).

PROF. BARUN DE : When Prof. B. N. Dasgupta speaks of autonomy of the universities, whose autonomy or whose freedom he has in view? Is it the freedom of the Vice-Chancellors and the administrators only? Should not the teachers and the academic staff participate more and more in the decision making process in the academic institutions ? And, it has also to be remembered that many of those who oppose government interference have to fall back on foreign foundations and these foreign foundations also find it convenient to interfere in the affairs of the institutions they financially support.

MR. PRANABRANJAN RAY : It is a well-known fact that an under-developed country is a country where capital is scarce and labour plenty. In such a situation it has often been found that if the manpower is properly utilised, labour can be used as capital. In proper utilisation of man-power resources, education and health services are primary pre-requisites. In such a situation, education should be planned within the broader framework of the plan for national economy. Education should not be left to itself to be decided by individual universities; and the question of autonomy thus becomes largely redundant.

SECTION E

Pattern of Change in Occupational Distribution

ASIT KUMAR BHATTACHARYYA, Regional Economy of West Bengal

&

PRIYATOSH MAITRA, Changes in Occupational Pattern and
Industrialization in India : 1901-1961

&

SUNIL K. SEN, Trends in the Growth of Manufacturing
Industries : 1858-1922

Discussion

The first question regarding Mr. Asit Kumar Bhattacharyya's paper concerned the validity of taking urban population as an index of urbanization. It was also held that a higher rate of work participation was a function of greater poverty. Mr. Bhattacharyya was asked to explain the causes behind the pattern he had described. It was further pointed out that he had not given theoretical foundation for division of West Bengal into three different regions and had not taken into consideration the problem of regional flows.

In reply MR. ASIT KUMAR BHATTACHARYYA answered that changes in urban population were perfectly valid for measuring urbanisation and cited Marx in support of his thesis. He also pointed out that according to available data work participation was relatively less in the poorer areas of West Bengal. He further remarked that a larger study by a team of social investigators would be necessary in order to find the reasons behind the occupational situation prevailing in West Bengal. Mr. Bhattacharyya admitted that the theoretical foundation for regional division was necessary.

He pointed out that the problem of regional flows had been mentioned in his paper but his study was primarily concerned with the occupational pattern in West Bengal in 1961.

There was a good deal of discussion on Dr. Sunil K. Sen's paper. It was pointed out that the picture of industrial growth presented by him was rather overdrawn. A note of caution was sounded as to the registration figures of joint stock companies since not only manufacturing companies were registered as such. It was further remarked that the process of decolonization was not completed in 1947. It was asked whether contributions of manufacturing sector to the national income could be figured out. The British Government adopted a policy of non-intervention in industrial development. Deliberate interventions were rare. Any attempt to pursue the policy of *laissez-faire* was to help British industry. For a period British capital was the main beneficiary of the Government policy. Indian capital in this background logically made new demands. In this connection there was a discussion regarding the types of evidence used by historians and economists. Four kinds of evidences were referred to : anecdotal, illustrative, illustrative of the statistical type, and macro-economic type.

In his reply DR. SUNIL K. SEN agreed that the rate of industrialization had not been very high and the industrial development had been lopsided. He remarked that the policy pursued in India did not conform to *laissez-faire*. The stores purchase policy, for example, was relaxed to meet the demand of the companies in India. The crucial point was the Indian bourgeoisie had failed to take advantage of this.

Regarding Mr. Priyatosh Maitra's paper there were questions on developed agricultural countries vis-a-vis occupational pattern and on backward and forward linkage effects. There were also questions regarding the incomparability of the census data over years because of differences of concepts used in different censuses. The question of balanced growth also came up for discussion.

MR. PRIYATOSH MAITRA began his reply by saying that his paper was based on 1961 Census Report and Kalra's paper was incorporated in that Report. This report does not give the distribution of population and labour force by occupation. Regarding the question of developed agricultural countries vis-a-vis occupational pattern, Mr. Maitra stated that countries like Australia and New Zealand were agriculturally developed but semi-industrialized. All these aspects were reflected through the occupational distribution of the people of these countries which proved his contention.

Regarding the question of backward and forward linkage effects, Mr. Maitra said that the picture of occupational pattern given by Census Reports and N. S. S. Reports pointed to very negligible backward linkage effects. He further stated that during the last 100 years in general and during the last two Plan periods in particular, national income per capita has risen and industries have also grown but, paradoxically enough this has not been reflected through favourable changes in our occupational pattern. As growth in income and progress in industrialization have not been reflected through relevant changes in occupational pattern in our country, it may be taken to mean that beneficial effects of growth that have taken place have been concentrated in few hands resulting in the growth of monopolies in our country. This finds support in the findings of the Mahalanobis Committee and in report submitted by Hazari. Mr. Maitra also said that he did not think that balanced growth was the solution. He suggested the following :

- (i) Machinery and raw materials which are imported today, should be cut to the minimum as far as possible and steps taken to see that these imported inputs are used in the production of producers' goods and not diverted towards the production of sophisticated consumer demands.
- (ii) Production of sophisticated consumer durables should be stopped and resources thus released be used to produce machinery and other essential products for the growth of the economy.
- (iii) Main stress should be laid on the use of local resources—human and material, in the programme of our industrialization. This would cause diffusion of wealth and generation of real growth force.
- (iv) Modernization of agriculture should be undertaken immediately through the use of machinery produced in our economy and by local skill. Large-scale production should be introduced. All these would cause beneficial backward and forward linkage effects.

SECTION F

*Trends in Employment (in agriculture, cottage industries and crafts,
manufacturing industries and in tertiary sectors)*

VICTOR S. D'SOUZA, Changing Socio-Economic Conditions and
Employment of Women in India

&

NILMANI MUKHERJEE, Port Labour in Calcutta 1870-1953: Some
Trends of Change

Discussion

DR. AMALENDU GUHA: The problem of supply of labour and social organisation of labour in Calcutta Port should have been studied by Dr. Nilmani Mukherjee in the greater perspective of the hinterland of the Port. Unless it is done many of the basic questions like ethnic composition, migration habits and reasons thereof and social organisation of labour would remain unanswered.

Secondly, modern method of spot-interview, as done by the sociologists, could have been profitably employed by historians of current situation like Dr. Nilmani Mukherjee, in addition to gathering of information from written records. Press-cuttings too could have been used with profit.

MR. ASIT KUMAR BHATTACHARYYA: Dr. V. S. D'Souza in his paper, comments about socio-economic development vis-a-vis the accelerated growth of the tertiary sector at a faster rate than the growth of either the primary or the secondary sectors of the economy can not be taken as valid. As Hoffmann, Gershenkorn, Mallenbaum, Maizles and several other growth-economists have shown that at the initial stage of economic growth secondary sector grows at a higher rate than the tertiary sector, Dr. D'Souza's statement becomes largely a conjecture.

We should also differentiate between the organised and the unorganised tertiary sectors. In an underdeveloped country the unorganised tertiary sector dominates over the organised tertiary sector.

So far as Dr. Nilmani Mukherjee's paper is concerned, the author should have spelled out the reference periods in greater clarity and given the averages of migration and types of labour employed at the Port in the reference periods, rather than the absolute number in certain picked up years. He should have worked out the correlation, if any, between cargo handled and the volume of labour employed in a time series, so that we may have some idea about the level of technology in cargo handling at the Port of Calcutta.

We also want to have some data about the periodic migration of dock labour that Dr. Nilmani Mukherjee mentioned. Any data on the panic exodus of 1941-42 would be welcome.

DR. V. B. SINGH: Dr. D'Souza is to be congratulated on focussing attention on certain sociological determinants of the level of employment of female labour in the region of Punjab. But it will be difficult for a student of Economics to agree with his generalization that "the higher the percentage of tertiary occupation, the lower is the rate of employment of women". This generalization is contrary to the commonly accepted experience of industrialization. Here it is also appropriate to point out that Simon Kuznets has concluded, on the basis of his analysis of empirical data pertaining to various countries, that the percentage shares of the tertiary sector in the National Product are about the same in the underdeveloped and developed countries. Dr. D'Souza's generalization may imply several things, including the behaviour of entrepreneurs in the choice of technique in the tertiary sectors and their structure. Dr. D'Souza's conclusion may suggest that because of capital intensive techniques in the tertiary sector the employment of female labour may decline. Then what is the motivation for this choice? It would have been better had Dr. D'Souza indentified the specific causes of the low level of female employment in the tertiary sector in Punjab.

MR. PRIYATOSH MAITRA: Dr. V. S. D'Souza in his paper should have made a distinction between the women employed in the rural and the urban regions of the national economy. In the rural areas the larger section of the working women are employed in the primary and the secondary sectors in works demanding little skill, while in urban areas the majority of the working women are employed in the unorganised tertiary sector in works requiring practically no skill. In the urban sector, with increased economic development, the women from the families in upper income brackets show, or at any rate

will show—the tendency to go in for organised tertiary sector where skill is required.

DR. S. S. JOHL: Dr. V. S. D'Souza in his paper has not taken into account the question of income variable, with which is associated social impediments to participation in work by women. Dr. D'Souza could have taken, (a) the absolute income size of the families, and (b) the opportunity cost of employment as variables, in the horizontal axis and the time factor on the vertical axis to see the actual effect on work-participation by women. This would have perhaps revealed the fact that with the rise of size of absolute income in the family, social constraints begin to exert a negative influence on the participation in work by the women folk.

MR. PRANABRANJAN RAY: In continuation of Mr. Priyatosh Maitra's and Dr. S. S. Johl's arguments, it seems that certain conclusion about participation in work by women can be made. Firstly, the women folk in the rural areas show a greater tendency to participate in work, where they generally take part in works in the primary and the secondary sectors, requiring little skill. Participation in work by the women folk in the urban areas is proportionately less than that in the rural areas. More working women in the urban areas participate in work in the unorganised tertiary sector at the initial stages of economic development. Secondly, in all the areas, as the size of the family income grows, social constraints begin to exert their pressure and negate the participation in work by the women folk, as a result of which in upper income brackets the proportion of working force among the women folk decline, up to a certain stage. Or in other words, with the involvement of prestige and such other questions, as the income of the family rises, elasticity of demand for income tends to be zero, so far as income of women is concerned. But after a time gap, after the process of economic development is well on its way, specially in the urban areas, the women from upper income groups show a tendency to participate in work, particularly in the organised tertiary sector, requiring skill. At this point prestige factor gets adjusted to new situation, old social impediments begin to give way to new mores.

DR. MOOKERJEE: Dr. V. S. D'Souza in his paper makes the observation that with socio-economic development, participation in work by women declines. Though economic development can be measured with adequate conceptual framework, can social development be measured in the same way? Can we take the relation as axiomatic? Can we not say that with social-development of one kind and creation of newer employment avenues participation in more gainful work by women may actually

go up in proportion?

Secondly, is there a negative correlation between the rise of tertiary sector and fall in the proportion of women participating in work? Connected with this question is, where in India do we get a reliable index of the size of the tertiary sector? The data provided by the Census about the tertiary sector is vitiated by the definition of tertiary sector in it, which is an amorphous category.

MR. DURGAPRASAD BHATTACHARYA: Regarding Dr. V. S. D'Souza's paper it should be said that relatively non-monetized character of the labour market of the primary sector of the Indian national economy is a great hindrance to the knowledge about participation in gainful work by women in that particular sector. Even if we take those women whose work adds something to the gross national product as working-women, it becomes difficult to call all of them as gainfully employed. And besides it is also difficult to categorise certain kinds of works—whether they do or do not add value to national income. If one husks his own paddy for home consumption he is not adding anything to national income, but if he or she husks it to sell in the market, he/she is adding something to national income. Gainful employment, as we all know, depends on that factor. Employment in secondary and tertiary sectors, in general, poses no such difficulty, except in marginal cases.

DR. O. P. SHARMA: Dr. V. S. D'Souza's whole approach is questionable on the ground that he takes a single-category index for explaining the trends of growth and/or decline of female employment. He takes only economic factor as the motivating factor, but there may be a multiplicity of motivating factors. Marital status may be one of the major variables in determining the participation in work by women folk. It may be seen that the unmarried women surpass the married women and widows surpass both the unmarried and the married women among the working women.

PROF. KARUNAMOY MUKERJI: The question of employment of women should not be taken as an autonomous question. It should be treated as a part of the overall question of employment market and be taken account of sector by sector—with reference to rural and urban areas—in primary, secondary and tertiary sectors.

Secondly, social impediments and specially the so-called prestige factor to employment and work should not be taken too seriously. In the ultimate

analysis economic factors are more important.

Thirdly, question can seriously be raised about Dr. D'Souza's assumption that greater the economic development lesser will be the proportionate size of employed women.

MR. C. MOWLI: Any study of women's employment, as attempted by Dr. V. S. D'Souza, should take into account effect of marriage, widowhood etc. on educated women who have the potentiality to go into the employment market. Ethnic habits of women should also be taken account of.

DR. B. K. ROY BURMAN: Changing role of the *Sardars*, referred to in Dr. Nilmani Mukherjee's paper, in the social life of the dock labourer's in Calcutta Port should have been investigated more thoroughly. Special emphasis should have been placed on the effect of the trade-union movement on the changing role of the *Sardars* and the role of the *Sardars* in the trade union movement. Mention should also have been made of the role of *Sardars* vis-a-vis trade union movement in the political behaviour of the dock labourers.

DR. NILMANI MUKHERJEE agreed to all the suggestions made, but pointed at the difficulty of getting the relevant data and fitting them in a time series.

AJIT DASGUPTA, Management of Labour Resources

&

K. N. SHARMA, Social Watershed of Entrepreneurial
Growth in India

Discussion

DR. A. N. PANDEYA: Dr. K. N. Sharma's paper can be called a path-breaking attempt in many respects. But what impresses me most is his attempt to construct a model on the basis of empirical data. Dr. Sharma suggests a model with two components, (A) intra-social, and (B) extra-societal. But to me it seems that his suggested model has two components

and three variables. The variables are, (a) a material system, (b) an ideational system, and (c) a communication system. The model has all the sophistication to allow for the application of cybernetics, for each of the above elements. In Dr. Sharma's suggested model all the variables are so designed, as could reflect any significant change in social relations and positions.

DR. O. P. SHARMA: Dr. K. N. Sharma, in his paper has used the term 'group-orientation' in such a way that it suggests a 'deterministic' existence of the group for any individual in the group. In fact individual motivation do not find any place in Dr. K. N. Sharma's scheme. Dr. K. N. Sharma also does not take into account in-built cultural motivation, in his enthusiasm for regarding such material factors as communication facilities and economic motives as sole causative factors of economic actions.

MR. ARUN COOMER BOSE: Trading tradition in particular caste alone cannot provide any satisfactory answer to the generation of entrepreneurship. Factors such as Permanent Settlement of tenure helped the generation of entrepreneurship in a negative way, by diverting the resources of many of the traditional trading castes in Eastern India from trade to land. The persecution complex of many of the religious minority groups, e. g., the Parsees, the Memons, the Bohras, the Jains and others induced them to be financially powerful and at the same time to remain highly social, economically and physically mobile, so that they can move from one place to another easily and remain powerful by dint of liquid cash.

DR. V. S. D'SOUZA: Dr. K. N. Sharma has not given proper emphasis on social and psychological factors like caste ideology, caste habits, caste inhibitions etc. Social impediments and social inducements in economic behaviour should have been taken into account.

DR. S. S. JOHL: Mr. Ajit Dasgupta's assertion that one-third of labour power is utilised, is a simplification.

DR. AMALENDU GUHA: Dr. K. N. Sharma's paper is a contribution to the well-known Gadgil approach to the role of indigenous entrepreneurs in economic development. Dr. Sharma paints an optimistic picture of a smooth development, which it had not been.

It is wrong to assume along with Dr. K. N. Sharma that the Parsees were the earliest entrepreneurs. In fact there were several other groups and individuals in different metropolitan regions of India trying to assume the

role of entrepreneurs as junior partners to foreigners in trade, mining and industry as the Parsees in the Western coast. In this connection mention should be made of the endeavours of Dwarkanath Tagore and the Kerr Tagore company.

MR. DURGAPRASAD BHATTACHARYA: Mr. Ajit Dasgupta spoke of declining proportion of labour force to total population. There should be sectoral break down. There has been an absolute rise in many sectors including primary sectors.

MR. V. K. BAWA: Entrepreneurship declined in the Deccan due to the fact that the money-lenders and bankers began to advance unproductive loans for spurious consumption by the landed aristocracy from around the middle of the 19th century.

DR. K. N. SHARMA agreed about the suggestion that the model needs to be spelt out more rigorously. He also agreed that his factual data need verification. But, he felt, that the social constraints and inducements, about which so many speakers were so eloquent, even though they are important factors in the short run, are not so important in the long run trend analysis. In the ultimate analysis economic motives and political opportunities are more important causative factors.

MR. AJIT DASGUPTA replied that the methodology of analysis was more important than the details. However, he agreed that the details mentioned in the paper need rechecking.

SECTION G

Trends in Land Organization (ownership and possession of land etc., agricultural labour)

B. K. ROY BURMAN, Hundred Years in a Tribal Village—Totopara

Discussion

DR. NIHARRANJAN RAY remarked that the problem was not new in the Indian scene. The clash between tribal and non-tribal groups on landownership had led to peasant revolts in Chhotanagpur. The settlement officers in the area, who were Bengali Bhadrals, often succeeded in securing tribal land. A similar process of introduction of an alien system is going on in the Kinnaur area of Himachal Pradesh.

DR. INDRA DEVA remarked that the integration of the tribal communities in the main body of Indian life was prevented by many factors, the most important of which was contact with *Thikadārs*, who generally represented the people from the plains in the tribal areas.

MR. ASIT KUMAR BHATTACHARYYA drew attention to the absence of employment opportunities in tribal areas, which created grievances.

DR. V. S. D'SOUZA remarked that the retention of tribal property system opposed social change. There was necessity for making land marketable without dispossessing the tribals.

DR. J. P. SINGH UBEROI pleaded for developing a proper understanding of the place of tribals (as distinct from the place of tribalism) in the twentieth century. There was parochialism in our tribal policy. We should make a comparative study of the position of tribes people and of administrative policy towards them in other countries. This could be particularly useful in regard to the training of administrative officers.

DR. AMALENDU GUHA remarked that the problem of dispossession in tribal

areas was similar to what was happening in Tripura and Goa where the local population found itself in a vulnerable economic position because of competition from outsiders. Gadgil had recently produced a note on some vulnerable pockets in India. Dr. Guha also pointed out the contrast between the role of the missionaries and that of the plainsmen in the tribal areas of Assam.

S. S. JOHL & GURBACHAN SINGH	}	Economic Implications of Selected Agrarian Reforms in the Punjab
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Discussion

DR. SUNIL K. SEN observed that the paper was based on wrong premises. The thesis that big farms were highly productive was contradicted by recent studies of the Institute of Economic Growth. Dr. S. S. Johl had written off the landless agricultural labour and had no solution for that class. Because of the low level of industrial development in India, there was no possibility of diversion from agriculture. Land reform measures had failed because of absence of cheap credit co-operatives, etc.

MR. ASIT KUMAR BHATTACHARYYA remarked that he was baffled by the entire approach and methodology. There was no reference to welfare economics. It could be shown that medium size farms were more productive than the big farms. Yields are higher in the comparatively small farms in Scandanavian countries than in the bigger farms in Canada and U.S.A.

MR. PRIYATOSH MAITRA remarked that the objective of land reform measures was mobilization of resources for the farmers. The question had been approached in a negative way in the paper. The regeneration of rural economy in India was possible by using labour as capital.

MR. PRANABRANJAN RAY questioned the criterion of efficiency of big landholders assumed in the paper and pointed out that a considerable part of the agricultural income was used for conspicuous consumption and not for capital formation. The key to agricultural productivity was held by small farmers and tenants and the paper virtually ignored them.

DR. B. K. ROY BURMAN remarked that agricultural labourers and owners

of uneconomic holdings were included in land distribution measures. This might mean social justice for 96% and not for a mere 13% as assumed in the paper.

DR. V. S. D'SOUZA pointed out an important feature of the social structure of Punjab villagers, namely, the two major layers of the caste system. The top caste generally monopolized ownership of land. The effect of land reform measures on this structure was discussed in the paper. He also questioned the validity of the assumption that the new inheritance laws had a harmful effect on the economy since the data were so rare on this aspect of rural economy.

PROF. KARUNAMOY MUKERJI asked what was meant by land reforms, if Dr. Johl would object to the abolition of intermediaries?

In his reply DR. S. S. JOHL remarked that he was concerned with the actual results of land reform measures which had not helped the small tenants and the landless. The ultimate solution lay in the reduction of pressure on land. He referred to the American farm model which demonstrated the efficiency of big farms. Some of the participants objected to the application of the American model to Indian economy.

KARUNAMOY MUKERJI, Land Prices in Punjab

Discussion

DR. NIHARRANJAN RAY: In the last part of the concluding paragraph of your paper, you mention: "There were forms at work, perhaps other than pure economic forces, which must have...etc." I may suggest that you might have considered the influence of two factors on land prices in Punjab: (1) social overheads in the shape of facilities granted to Army personnel recruited from Punjab peasants, (2) and the money inflow from irrigation facilities.

PROF. KARUNAMOY MUKERJI: By "social overheads" economists generally mean educational facilities, rehabilitation of backward classes, etc., and by "economic overheads" are meant the facilities of transport, communication, electricity, irrigation, repair, servicing facilities etc., provided in order to create an infra-structure. Undoubtedly progress of irrigation in Punjab

and the creation of grand canal colonies, etc. created the climate for investment in land and growth of prosperous canal colonies in Punjab, and I have mentioned this in my paper. Regarding financial remittances I have collected data on money inflow into Punjab in terms of money orders received from army personnel and I mean to utilize these and other data in future to show how such monthly money remittances supplemented by gratuity payments received in lump on retirement, and also, large sums brought by Punjabi emigrants to Australia, Canada, etc., together helped the pace of monetization of the rural economy, emergence of a class of money-lenders, led into certain types of investment in agriculture, speculation in land, passing of lands into moneylenders' hands, and so on and so forth. Certainly, they influenced land prices. They are to be noted in the proper context, i.e., of an earlier period. But I am here concerned with the fall in land prices in the mid-fifties of this century.

DR. S. S. JOHL : I suggest that due to land reform measures introduced in Punjab, the land owners became panicky, and rapidly sold lands. Also very small holders finding their farms unremunerative hastened to sell out their lands. These created a pressure in the land market and prices fell.

PROF. KARUNAMOY MUKERJI : But in that case, the figures of area transferred would have been large, and this would be noted in the documents of registration offices.

DR. S. S. JOHL : Sale took place outside the registration office.

PROF. KARUNAMOY MUKERJI : This is contrary to the usual practice nowadays, specially, when transferees want a valid legal document in proof of their title. This may be the case in respect of term lease documents, but not in the case of sale deeds.

DR. S. S. JOHL : Transfers in the shape of 'Gifts' took place.

PROF. KARUNAMOY MUKERJI : But transfer figures I have dealt with include all transfers by "free contract" including gift. But any way, this has to be examined. What I have in mind is that the fall in land prices, apart from being associated with fall in certain crop prices, might also be due to some political, social, and such other factors including legislation affecting institutional relations. We have to find them out.

DR. S. S. JOHL : Land prices rose very sharply in recent times in Punjab; for example, the average price for an acre runs up to Rs. 12,000, where two

or even three crops may be grown. Agriculture in Punjab is so prosperous and paying now a days.

PROF. KARUNAMOY MUKERJI: I know that, but my figures are only upto 1962-63. And I have warned that I have dealt with official prices as quoted in transfer documents. We do not consider here the problem of "shadow" prices as I said in this paper.

MR. DEBKUMAR DUTTA MAZUMDAR: Sources of your data may have been mentioned.

PROF. KARUNAMOY MUKERJI: Yes, I shall mention them when the figures are published: but I may inform you that figures are all from old government records, statistics, and more recent publications of the Departments of Land Revenue Administration, publications of the Ministry of Food and Agriculture, the Director-General of Commercial Intelligence, and Statistics, Evidences and memoranda submitted to Famine Commissions, Publications on Rural Indebtedness, etc. are also, some secondary sources and so on.

DR. SUNIL K. SEN: Whether the institutional framework of the land system could be related with the rise in land prices?

PROF. KARUNAMOY MUKERJI: Yes, and I have mentioned this in my paper.

DR. SUNIL K. SEN: Who were the beneficiaries of the rise in land prices?

PROF. KARUNAMOY MUKERJI: In the micro sense, may be, it is the seller who gains, provided in doing so he does not sustain losses in the forms. And in the macro sense, it is difficult to estimate the net gain or loss, for, all possible factors and aspects have to be taken into account in order to strike an overall balance-sheet.

DR. SUNIL K. SEN: Could we say that rich peasants in Punjab proved efficient farmers?

PROF. KARUNAMOY MUKERJI: Yes, generally so, as far as my information goes.

K. SURESH SINGH, Tribal Land Organization in Chhotanagpur
and its Development

Discussion

DR. AMALEND GUHA and DR. B. K. ROY BURMAN drew parallels between the Assam and Chhotanagpur tribes. The waste lands in the tribal areas were generally under communal ownership and the irrigated lands under private ownership. Transfer from communal to individual ownership could be illustrated from experiences elsewhere.

DR. J. P. SINGH UBEROI pointed out that distinction between family and lineage should have been made in the paper. He also felt that individual versus communal ownership should not be taken as a contrast of mutually exclusive forms of ownership. Collective rights in some matters co-exist with personal rights to some extent in all societies. Dr. Uberoi observed that the best way to look at a non-monetary economy was to look at the processes of production, consumption, distribution, etc., and not simply at ownership.

DR. KUMAR SURESH SINGH in his reply promised to look further into the problem of interaction between the Kolarian and Dravidian agrarian elements. Regarding Dr. Uberoi's suggestion he remarked that ownership was as important as distribution, production, etc.

SECTION H

Pattern of Agricultural Changes (land use, crop pattern, output, technique of production, etc.)

B. M. BHATIA, Food Shortage and Agricultural Production in India

Discussion

Participants in the discussion pointed out the need for taking the aggregate demand of foodgrains and of cereals at home and abroad and other questions like price differential, demand elasticity etc. in studies like this. PROF. KARUNAMOY MUKERJI stated that evidences of the Famine Commission (1880) related to earlier years and should, therefore, be treated with caution while a comparison was made with the population estimates of 1881.

DR. B. M. BHATIA in his reply maintained that, making allowance for relevant factors, the trend was one of simultaneous export of foodgrains from our country with recurrent famines at home. He also maintained that the comfortable position in regard to food supply in 1930's which led some writers to argue at the time that India was surplus in foodgrains, was more apparent than real. The "surplus" was the result of fall in consumption forced upon peasantry and lower strata of population by the Great Depression.

AMALENDU GUHA, Socio-Economic Changes in Agrarian Assam

Discussion

DR. NIHARRANJAN RAY drew attention to the slave-like condition of the migrant labourers who used to be "branded" in some Tea Gardens. He also pointed out that token currencies were used in the Tea Gardens which were like islands or enclaves within the State.

MR. DURGAPRASAD BHATTACHARYA also mentioned about the use of "Cowrie" currency and other forms of token currencies in the gardens.

DR. V. B. SINGH enquired as to why local entrepreneurship was not available ; and in such a situation what was the possible alternative except the immigration of entrepreneurship from other parts of the country. Similar questions about the 'marginal' or 'peripheral' men in entrepreneurship were raised, amongst others, by DR. V. S. D'SOUZA and by MR. DEBKUMAR DUTTA MAZUMDAR.

DR. B. K. ROY BURMAN pointed out that for gaining an insight into the failure to respond adequately by the Assamese society to the rapidly developing situation in the last century, one has to consider the agrarian structure of Brahmaputra valley. In this connection it is to be noted that in Assam, rent-free lands and land with special concessions like lakheraj, nisbkeraj land etc. existed to a considerable extent. These might have served as disincentive against the mobility of the local population to new sectors of economy. He also drew attention to the fact that in Assam, village community based upon interaction of castes who had specialised in diverse occupations did not come into existence as the dominant pattern. Here diversification of economic activities including pursuit of crafts existed at the household level. As a result there were no distinct segments in the village community, who felt themselves to be subdued and marginal who would have liked to move away to plantations at any cost and to other new fields of economy pursuits. He also made a mention of one moamari revolt and turmoil Assam was going through for about 50 years before the conquest of Assam by the British. He felt that this was likely to have disrupted the social base, which could have been conducive to the emergence of an indigenous entrepreneurial class.

PROF. KARUNAMOY MUKERJI pointed out that a discussion of the agrarian relations was directly relevant to the theme of the paper and further stated that the role of coal, timber, petroleum and other industries should have been covered in the paper.

Referring to the problem of lack of local enterprise, DR. NIHARRANJAN RAY also enquired whether this was due to ethnic habits.

Replying to the various points raised, DR. AMALENDU GUHA maintained that Assam had an aborted growth of its economy largely due to the Government policy followed during the last century. Silk industry was allowed to stagnate and decline and the alignment of railway line was not conducive to the pattern of urbanization that might have helped industrial-

zation of Assam. The ethnic factor might have been responsible for lack of urbanization in the medieval period, but was only one of the causes why urbanisation failed Assam in the modern period. He mentioned that macro-studies of the earlier years and micro-studies of more recent years would have to be synthesized for a fuller approach to regional growth pattern in Assam. In doing so, India could be divided into four or five socio-economic zones, as convenient units of such studies.

B. B. SARKAR, Trends in Land Utilisation and Cropping Pattern in West Bengal

Discussion

Discussion took place around : (i) intensity of agriculture in the districts with inadequate irrigation facilities, (ii) the apparent high birth rate in the last decade, and (iii) the impact of the Land Reform Act. The effects of intensity of land use, the impact of modern technique on agriculture and the rate of growth of urbanization, were also discussed.

Referring to Dr. B. B. Sarkar's remark that the extension of cultivation of commercial crop was not at the cost of paddy cultivation simply because area under the latter crop was increasing. PROF. KARUNAMOY MUKERJI pointed out that such a conclusion may not be in accord with reality if we assume that paddy cultivation extended only in the additional paddy irrigated area. In fact, while *Aman* paddy may increase, jute may replace *Aus* paddy. The figures have to be examined in the context of competing crops.

DR. B. B. SARKAR maintained that absence of industrial opportunities forced people to remain confined to land. The instances of Japan or China with regard to agricultural development were not strictly applicable to India. During the period under review, Dr. Sarkar commented, the data that he used were liable to some shift because of the uncertainties of the Second War and consequent inconsistency in the changing occupational pattern in West Bengal.

K. SURESH SINGH, Pattern of Agricultural Changes in
Tribal Chhotanagpur

Discussion

Referring to Dr. Kumar Suresh Singh's paper, DR. NIHARRANJAN RAY mentioned about *Asuras* and about the different methods of iron smelting followed by the tribals of Chhotanagpur. He enquired about the relation of toponym with the habitation of such tribal people like 'lohars' and others.

Referring to the relation between the use of iron plough and soil erosion, discussion took place around the agricultural technique followed by the tribals. Some participants pointed out that the contacts of tribal with non-tribal people needed further enquiries. Other participants pointed out that the demand for vegetables from towns and the allied marketing organisation of the tribals need further enquiry.

DR. B. K. ROY BURMAN commented that the changes in the cropping pattern among the tribals of Chhotanagpur should not be considered in isolation. The economy of the region should be considered as a whole, and the changes in the cropping pattern of the tribals should be considered as a part of this. In this connection he made a reference to the growth of industries and urban centres in Chhotanagpur and pointed out that the changes in the cropping pattern of the region as a whole should be seen as a response to these developments. It is only after a general picture of such changes is presented, one can consider whether the changes in the tribal sector have followed the general pattern or not. If not, one can look forward for the specific cultural and ecological factors.

DR. K. N. SHARMA drew attention to the changing definition of tribes and also to the impact of changes on different tribal and semi-tribal people. In this connection the social phenomenon of tribe-caste-continuum was mentioned.

DR. KUMAR SURESH SINGH clarified the link of toponyms with the various tribes and also explained the origin of the *Asuras*. He mentioned about the confusion caused by Government orders regarding the definition of 'Tribes' and 'Castes'. The tribe-caste-continuum problem has to be more precisely dealt with. Regarding the agricultural technique, such as broadcasting and transplantation methods, Dr. Kumar Suresh Singh observed, that while the

tribal people were, generally speaking, getting acquainted with the more productive method of transplantation, they had the tendency to switch on again to broadcasting method in the years of famine or scarcity of rainfall.

MR. DEBKUMAR DUTTA MAZUMDAR pointed out that birth rate can increase only if fertility of women increases or the marriage pattern changes. So he wanted to know from Dr. B. B. Sarkar the evidences he can cite in support of his statement in the paper that birth rate in W. Bengal has increased.

Referring to the observation that the correlation between the overall growth of a particular area and that of the tribal people has to be established, DR. KUMAR SURESH SINGH observed, that in the present paper he was concerned mainly with the tribal people predominantly in certain areas of Chhotanagpur.

SECTION I

Change in Manufacturing Industries

DURGAPRASAD BHATTACHARYA, Concentration of Economic Power in Manufacturing Sector

Discussion

DR. K. N. SHARMA said that an analysis of the control of Directorships was not enough, the personnel and their affiliation also should be studied. DR. J. P. SINGH UBEROI suggested that even concentration may lead to some sort of economic progress.

ARUN BOSE, Foreign Owned and Controlled Investment in the Private Sector in India : 1910-1961

Discussion

PROF. KARUNAMOY MUKERJI pointed out that the export-oriented nature of foreign private investments in the pre-independence period has been over-emphasized. There were such investments, he pointed out, also in the railway and other engineering industries catering to the needs of India's infra-structure up to 1921. But no evidence was made available to show that this phenomenon was more than marginal.

MR. PRIYATOSH MAITRA questioned the statement that foreign private capital has not tended to integrate with Indian capital. Such a statement should be made only after a scrutiny of the numerous post-independence collaboration deals and of the Government's definite policy of encouraging integration under Indian control in such deals.

MR. PRANABRANJAN RAY, in course of the discussion, threw some light on the mechanism of control in foreign-owned companies. Some of the Indians, he said, are really becoming share-holding directors in such com-

panies, but all important discussions are made by mother firms in foreign countries. DR. B. M. BHATIA questioned the efficacy of Prof. Arun Bose's methodological approach. His points were (i) a 10-year period is too short as the unit of study for the purpose ; (ii) it is the degree of foreign control in our economy as a whole which we want to know and about this the paper is silent.

DR. AMALENDU GUHA pointed out that much of the increase in the foreign private capital between 1948 and 1965 as shown in the relevant Table was only apparent and not real. This is because many of the existing companies revalued their assets and accordingly increased the book value of the paid-up capital, in the intervening period. MR. DEBKUMAR DUTTA MAZUMDAR said that devaluation is an important factor affecting foreign investments and as such deserves mention. He enquired of the impact of devaluation on foreign investment in India from Prof. Bose.

In general, the discussion centred round the following important points —
(i) The Reserve Bank's method of calculating foreign private investment :
(a) the question of bias in returns submitted, (b) the problem of the effect of price-structures and price-variations in capital valuation.

(ii) The reasons why the inter-temporal comparison of the Reserve Bank figures is no indicator of changes over time in foreign investment.

(iii) The question as to how far "non-cash inflow" figures do or do not represent saving or wastage of foreign exchange resources.

PARESH CHATTOPADHYAY, *State and the Economy in
the Post-Independent India*

Discussion

Much discussion centred round the point as to whether the growth of the public sector indicates progress towards socialism. The figures from Mr. Manubhai Shah's statement were not readily accepted by the Seminar as a good index of sectoral development. The relevant figures for Japan and U. S. A., it was felt, should be thoroughly investigated into. PROF. ARUN BOSE, in course of his comments pointed out that in India the rate of growth of the public sector should not be identified with the rate of growth

of socialism. Dr. Paresh Chattopadhyay is right in emphasising this. However, it would be wrong to ignore an indirect connection. A growing public sector *could* (though it does not automatically) help lay the foundation or what Lenin called the material basis for socialist management of the economy by the working-class. In fact, as writers like John Lewis have also correctly pointed out, is India being helped by the growth of the public sector, is an issue which is still open.

MR. ASIT KUMAR BHATTACHARYYA commented that the public sector in independent India was expanding while playing a complementary role vis-a-vis private sector in a somewhat desirable manner, from the view point of even the common people upto the end of the Second Plan period. It lost its direction only thereafter, because of a crisis in planning. DR. PARESH CHATTOPADHYAY preferred to describe this phenomenon as the crisis of capitalism itself.

In this context, the important question is which class holds power and in the interest of which class is the public ownership used, concluded DR. PARESH CHATTOPADHYAY. Some doubts were raised by a few participants as to the connotation of such terms as "the working-class."

SECTION J

Trends in National Income

MURARI GHOSH, Development of the Drain Theory
by Dadabhai Naoroji and Romesh Dutt

Discussion

MR. ASIT KUMAR BHATTACHARYYA pointed out that remittances from India through French or Dutch trading companies should also be taken into account and that the entire amount of interest from investments in Indian railways should not be included in the calculation of the drain.

DR. B. M. BHATIA pointed out that even during the years of almost chronic famine in the late 19th century, foodgrains used to be exported from India. He also suggested that overall effect of the drain on investment in India as well as on the nature and volume of India's trade should be carefully studied. He further posed the question whether the effects of foreign investment in India could be properly quantified.

DR. V. B. SINGH suggested that Naoroji and Dutt were possibly propounding inverted theory of imperialism and that the influence of British economic thought on them should be measured. PROF ARUN BOSE drew attention to the fact that even Adam Smith had blamed the East India Company for having pursued a mercantilist policy in India and operating it in Britain's interest. Though it is possibly correct to say that Adam Smith's advocacy of free trade was by the English against the interest of India, it would not be correct to make his theory of colonial trade responsible for this.

MR. DURGAPRASAD BHATTACHARYA, however, rejected the view that the Industrial Revolution in Britain was financed by the Indian drain.

DEB KUMAR DUTTA MAZUMDAR, *Productivity
of Labour and Capital: 1951 to 1916*

Discussion

DR. V. B. SINGH, started discussion by enquiring whether the author had made a distinction between the concepts of labour efficiency and labour productivity or whether they were taken as synonymous. He further stated that light should have been shed on the determinants of labour efficiency and labour productivity.

DR. B. K. ROY BURMAN pointed out that various social and psychological factors such as castes, attitude towards the management and occupational mobility should be taken into account.

PROF. SUDHANSU MUKHERJEE emphasized that autonomous components should be taken into account along with the technical ones.

DR. V. S. D'SOUZA said that even if the ratio between the total industrial labour force and the total population remains the same, industrialization can be said to have improved the workers' lot if it raised their income and the age of employment.

Commenting on tables 4 and 5 of the paper, DR. B. M. BHATIA pointed out that share of wages as a percentage of net product showed an increase proportionate to the increase in total productivity, and in proportion to increase in labour productivity. It appeared to him that labour had improved its share in net product over these years.

PROF. KARUNAMOY MUKERJI pointed out that it would be incorrect to say that the aggregate product is exhausted by adding together the marginal productivities of only 2 inputs chosen here, namely, labour and capital. He also suggested that the character and the shape of the production functions may change if other inputs are taken into account.

MR. DEBKUMAR DATTA MAZUMDAR, while admitting the validity of these observations maintained that he took into consideration only labour and capital inputs and his conclusions thus followed from his premises.

K. MUKERJI, Problem of Structural Break in Econometric History

Presented in absentia

&

M. MUKHERJEE, Long Term Changes in the National
Income of India since 1871

Presented in absentia

Discussion

Commenting on Prof. Moni Mohan Mukherjee's view that the periods from 1885 to 1900 and from 1925 to 1950 were periods of relative stagnation. DR. B. M. BHATIA said that the period from 1880 to 1914 was in his opinion one of considerable progress. Speaking on India's earnings of precious metals, he further said that gold and silver worth Rs. 17,000 million were imported into India between 1850 and 1931. DR. NIHARRANJAN RAY pointed out at this stage that India, right from the beginning of the Christian era till the middle ages, was known to have been earning a tremendous amount of gold.

DR. V. B. SINGH observed that Prof. Moni Mohan Mukherjee may kindly examine the views expressed by economists such as Daniel Thorner and S. J. Patel that the national income of India during the planned period was under-estimated, especially in the self-employed sector.

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