

# INDIA BEFORE THE CRISIS

# India Before the Crisis

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## PREFACE

I should be very ungrateful if I did not thank Prof. Chiranjiva Lal of the Dyal Singh College, Lahore, for kindly reading the entire MS. of this book and suggesting improvements, and Dr. Bhupal Singh, Senior Professor of English in the same College and Doctor of Literature, who knows enough of both economics and mathematics to be of material help to a teacher of economics. I am also indebted for assistance to L. Ram Labhaya, Librarian, Punjab Public Library, and L. Labhu Ram, Librarian, Punjab University Library.

The present volume furnishes the historical background for the study of problems arising out of the crisis which form the subject matter of *India in the Crisis*. It deals largely with facts and problems of the past, but a knowledge of the past is essential for a proper understanding of the present.

Unfortunately the gravity of the economic situation is not sufficiently realised either by officials or non-officials. Our leaders would talk less about *gur*, *churkha* and *khaddar* if they had any perception of the gigantic forces released by scientific progress in recent years.

The collapse of agricultural prices has ruined the peasantry. But there is little recognition of this fact in our system of land taxation. The peasant, whose 'net assets' have completely disappeared, is still supposed to be able to pay the land revenue at the old rate of one-quarter 'net assets.' And a system of assessment has been devised which, in the name of one-quarter 'net assets,' will, in effect, impose a heavy tax on the subsistence of the worker.

LAHORE,  
September 26, 1935.

BRIJ NARAIN



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### ERRATA

- P. 30, line 3. Read 247 for 127
- F. 51, line 21. Read *variable* for valuable
- P. 67, line 11. Read *Numbers* for Members
- P. 129, line 18. Read *Self-Sufficiency* for Self-Insufficiency.

## CHAPTER I

### AREA AND DISTRIBUTION OF POPULATION

India has an area of 1,809,000 sq. miles, of which British India covers 1,096,000 sq. miles and Indian States and Agencies 712,000 sq. miles. The mean density of the whole of India in 1931 was 195 (176 in 1921 and 174 in 1911), that of British India 248 and of States and Agencies 114.

The population of India is about 353 millions (1931). This is a little more than one-sixth of the total estimated population of the world:

#### POPULATION OF THE WORLD (1931)<sup>1</sup>.

	Millions.
Africa .. ..	143.4
America .. ..	255.4
Asia .. ..	1,105.4
Europe .. ..	510.4
Oceania .. ..	9.9
World Total .. ..	<u>2,024.5</u>

Dr. Hutton in the Indian Census Report for 1931 gives 1,850,000,000 as an estimate.<sup>2</sup> But the League figure of about 2,000 millions seems more reliable.

Dr. Hutton thus refers to our present population.

“The population now even exceeds the latest estimate of the population of China, so that India now heads the

<sup>1</sup> *Statistical Year-Book of the League of Nations*, for 1932-33.

<sup>2</sup> Vol. I, p. 5.

lists of all the countries in the world in the number of her inhabitants."<sup>3</sup>

It is doubtful whether we enjoy that distinction. The Census Commissioner relies on Prof. Willcox's estimate (342 millions) of the population of the whole of China (including Tibet, Mongolia, Chinese Turkistan and Manchuria). The figure adopted by the Statistical Year-book of the League of Nations is 450 millions, which is about 100 millions more than the population of India. In the notes to the population statistics it is pointed out that estimates of the population of China by competent authorities vary considerably. But according to the census reports of Chinese Provincial Governments in 1928 and 1929, completed by estimates made by the Ministry of the Interior and by the Geographical Society of Wuchang, the population is about 453 millions, and the estimates published by the Chinese Maritime Customs Service are higher still.<sup>4</sup> If these official Chinese estimates are even approximately correct, China, of all countries, has still the largest number of inhabitants.

#### DENSITY ACCORDING TO ADMINISTRATIVE DIVISIONS

The mean density of population gives no idea of the actual distribution of population in a country.

Among the major Provinces, Bengal has a density of 646 to the sq. mile, and Burma has only 63. Next to

<sup>3</sup> Vol. I, p. 29.

<sup>4</sup> *Statistical Year-Book of the League of Nations, 1932-33*, p. 25. Note on China.

Bengal, in the order of density, comes the United Provinces with 456 persons to the sq. mile, closely followed by Bihar and Orissa with a density of 454. The thinly peopled provinces are Central Provinces and Berar (density 155), Assam (157), the Bombay Presidency (177), and the North-West Frontier Province (179). The Punjab has a density of 238 and Madras of 328 to the sq. mile (see Table 1).

There are extreme variations in density in States and Agencies. Cochin State has 814 persons to the sq. mile as compared with Jammu and Kashmir's 43 and Baluchistan States' 5. Among the larger States, the most densely inhabited is Baroda (299 persons to the sq. mile); Mysore has a density of 224, Hyderabad 175, and Gwalior 134.

Great variations in density are found even within these political divisions. In Bengal the Dacca Division has a mean density of 935 persons, but Lohajang thana shows a rural density of over 3000 per sq. mile, and the Munshiganj sub-division has a mean density of 2,413. In a village of Cochin State there are actually 4,000 persons to the sq. mile.

In the Punjab, of the five political divisions, Multan has the lowest (160) and Lahore the highest density (481). Of the Districts, Dera Ghazi Khan has only 56 persons to the sq. mile as compared with Jullundur's 713, Amritsar's 711, and Lahore's 527.

#### DENSITY ACCORDING TO NATURAL DIVISIONS

Sir Edward Gait, the Census Commissioner for 1911, divided India into 16 Natural Divisions on the basis of

rainfall. The statement given below shows the Natural Divisions in their order of density:—

	Density per sq. mile.	Mean annual rainfall in inches.
I. Bengal .. ..	534	76
II. Behar and United Provinces East .. ..	526	47
III. Madras South-East ..	386	39
IV. Malabar and Konkan ..	382	101
V. United Provinces West, and Punjab East and North ..	274	34
VI. Orissa and Madras Coast, North .. ..	225	50
VII. The Deccan .. ..	169	30
VIII. Gujrat .. ..	153	24
IX. Central India East, Central Provinces and Berar, and Chhota Nagpur .. ..	136	47
X. Rajputana East and Central India West .. ..	131	25
XI. Assam .. ..	115	92
XII. Lower Burma .. ..	80	146
XIII. The North-West Dry Area ..	72	10
XIV. Upper Burma .. ..	39	43
XV. Kashmere .. ..	37	24
XVI. Baluchistan .. ..	6	8

It would have been interesting to learn how the population of India and density had varied according to Natural Divisions since 1911, but the Census Commissioner for

1921, thought it "unnecessary to present the statistics of India as a whole in any scheme of natural divisions," and so also did the Census Commissioner for 1931.

This information is, however, available for the Provinces separately, and it is of great interest as showing the relative importance of the causes determining density in India. We shall take two examples, the United Provinces and the Punjab.

In the United Provinces the natural division enjoying the heaviest rainfall is that called Himalayan West. It comprises the Districts of Dehra Dun, Nainital, Almora and Garhwal. The normal annual rainfall, in inches, varies from 57·81 (Garhwal) to 84·91 Dehra Dun. But the average density of this natural division is the lowest—109 to the sq. mile. The explanation lies in the configuration of the land. The districts are hilly, and the percentage of culturable to total area is low (12·7).

The natural division of heaviest density is Indo-Gangetic Plain, East, with 753 persons to the sq. mile. It comprises the districts of Benares, Jaunpur, Ghazipur, Ballia, and Azamgarh. The average annual rainfall exceeds 40 inches, and the proportion of culturable to total area is 84·6 per cent. This division can support more inhabitants than Himalayan West, though it has much less rainfall, because it is a plain. Indo-Gangetic Plain, West, has a density of 542, or less than that of the Eastern plain because it has less average annual rainfall, though it has a higher percentage of gross cultivated area which is irrigated (30·5 per cent as compared with 27·5 per cent for Indo-Gangetic Plain, East).

It is evident that rainfall alone does not determine density. Hills and forests reduce the population in proportion to area. Where, however, there are no hills and forests, and irrigation not very important, density will be found to vary according to rainfall. The most densely populated regions of India are Cochin, Eastern Bengal, the north-east of the United Provinces and Bihar, and they receive more rainfall than any other part of India except Assam and Southern Burma, where a considerable proportion of the area is covered with hills and forests.<sup>5</sup>

#### IRRIGATION AS A FACTOR AFFECTING DENSITY

As in the United Provinces, so in the Punjab the natural division with the lowest density (83) is Himalayan. This includes Simla, where density is heavy (460) on account of the inclusion of a large urban area. The

<sup>5</sup> "The most densely peopled tract in India, a taluk in the Cochin State with 1,920 persons to the square mile, has the heaviest and most regular rainfall, and, conversely, the scantiest population is found in the almost rainless regions of Jaisalmer. The proverbs of the people confirm what appears to be the teaching of statistics. They say in Marwar, where emigration and the breaking up of families under the stress of famine have left a deep impression upon popular speech,—

'August's here, no sound of thunder,  
Sky is clear, and weather fine:  
Wife! 'tis time for us to sunder,  
You to your folk, I to mine.'

And this is only one instance, no doubt a specially intimate and pathetic one, of countless apothegms on a subject which touches the very life of the Indian peasant. It is true that the relation between rainfall and population is not always so direct and tangible as in the thirsty steppes of Western Rajputana. In Burma the maximum density does not correspond with the most copious rainfall, and some of the wettest tracts are conspicuous for their scanty population." (*Census of India, 1901, Report Vol. I, p. 3*).

average rainfall received by the Himalayan division is over 62 inches. The North-west Dry Area supports 130 persons per sq. mile, while its annual average rainfall is only 9.31.

The North-west Dry Area includes districts where density is heavy though the rainfall is scanty. This is due to irrigation.

The influence of irrigation as a factor in determining density is shown by the fact that the district of Lyallpur, with an annual rainfall of 12 inches, has a density of 368 per square mile. In 1891, before irrigation started, Lyallpur had only 7 inhabitants to the square mile. The canals were opened in 1892 and by 1901 the district had a population of 187 to the square mile. The density rose to 272 in 1911 and 301 in 1921.

In those parts of the Punjab where crops mainly depend on the supply of water by artificial means (canal or well irrigation), rainfall has practically no effect in determining the incidence of the population on cultivation. This is well brought out by the following table:—

Districts with over 70 per cent of matured crops irrigated (1921).	Incidence on cultivated area.	Rainfall. Inches.	Canal irrigation.	Well irrigation.
Amritsar ..	670	24	40	30
Muzaffargarh ..	568	6	53	24
Jhang ..	462	10	53	23
Lahore ..	472	18	56	22
Gujranwala ..	443	23	55	21
Multan ..	442	7	73	14
Montgomery ..	430	10	64	23
Lyallpur ..	417	13	97	1
Shahpur ..	365	15	64	11



It will be seen that the incidence does not vary as the rainfall. For example, the incidence is heavier in Muzaffargarh than in Jhang, though Jhang has more rainfall, and so on. The incidence is heavier in Amritsar than in Muzaffargarh, but not in any proportion to the rainfall in the two places.

Where, however, irrigation is of less importance, the incidence on cultivation varies according to the rainfall. This is shown by the following table:—

Districts with less than 28 per cent of matured crops irrigated (1921).	Incidence on cultivated area.	Rainfall. Inches.	Irrigation.
Kangra .. ..	984	74	20
Simla .. ..	972	63	0
Hoshiarpur .. ..	831	35	11
Gurdaspur .. ..	652	34	23
Rawalpindi .. ..	538	32	2
Ambala .. ..	522	32	6
Jhelum .. ..	443	26	5
Gurgaon .. ..	407	25	17
Rohtak .. ..	398	20	27
Attock .. ..	340	20	9
Mianwali .. ..	361	12	12
Hissar .. ..	196	16	16

The exceptional case of Hissar is explained by the fact that it lies on the border of Rajputana and the land of the district is of poor, sandy quality.<sup>6</sup>

<sup>6</sup> Punjab Census Report, 1921, p. 24, et. seq.

More recent figures, showing the relative importance of irrigation and rainfall in determining density are given below:—

District.	Mean density per sq. mile in 1931.	Percentage of irrigated area on gross cultivated area.	Average rainfall in inches.
Sialkot .. ..	622	48	31.83
Gurdaspur .. ..	526	29	34.41
Hoshiarpur .. ..	475	11	29.90
Gujrat .. ..	410	45	26.84
Rawalpindi .. ..	314	2	37.17
Jhelum .. ..	195	3	26.90
Montgomery .. ..	226	95	9.57
Lyallpur .. ..	368	96	11.99
Dera Ghazi Khan .. ..	56	52	5.67

In Rawalpindi and Jhelum irrigation is of no importance and density is determined by rainfall. Sialkot can support more inhabitants than Gurdaspur because it has a larger proportion of irrigated area, though less annual rainfall than Gurdaspur. Dera Ghazi Khan is sparsely populated because it receives very little rainfall, and only a little more than half of the gross cultivated area is irrigated.

#### DENSITY OF POPULATION IN EUROPE

“In former times,” says Conrad, “the growth of numbers was chiefly determined by the productiveness of land. The growth of civilization, which implies mastery over nature in a higher degree, and the development of industry and trade, make it possible to become independent

of agricultural conditions, and cause a heavy density of population also in places poorly endowed by nature. The great increase of population among modern civilized peoples is due to the growth of trade and industry.”\*

The growth of population in the leading countries of Europe in recent times has, as we shall see, been far more rapid than in India. As regards density of population the following statement is instructive:—

#### DENSITY PER SQUARE MILE

India.		East Prussia.		Saxony.		Westphalia.	
1872	148	1871	135	1871	440	1871	225
1921	177	1919	150	1919	805	1919	575
England & Wales.		France.		Sweden.		Spain.	
1871	389	1872	177	1872	23	1871	35
1921	650	1921	184	1920	36	1920	109

The increase in density in the industrial districts of Germany may be contrasted with the almost stationary conditions in East Prussia. In England and Wales density per square mile increased by 260 in 50 years. In France the growth of numbers, for reasons which are well known, is very slow. The very considerable increase in the density of the population in certain parts of Germany and England and Wales is mainly due to the development of trade and industry in these countries.

\* Statistik, Erster Teil, p. 81.

The Statistical Year-book of the League of Nations for 1932-33 gives the area in sq. kilometres and the population for different countries, from which density of population can be easily calculated. As compared with India's average density of 75 per sq. kilometre, Australia has a density of less than 1, Canada 1, U.S.S.R. 8, Norway 9, Sweden 14, Egypt 15, United States of America 16, and Soviet Russia, European territory 22. The density of population in France, 74, is about equal to that of India, 75. Countries with the heaviest density are the following:—

	Density per sq. kilometre.		
Belgium .. ..	..	..	272
Holland .. ..	..	..	241
United Kingdom ..	..	..	190
Japan .. ..	..	..	171
Germany .. ..	..	..	133
Italy .. ..	..	..	134
Czechoslovakia ..	..	..	106
Switzerland .. ..	..	..	100

It is obvious that Belgium can support 707, Holland 627 and the United Kingdom 494 persons per sq. mile only with the aid of a highly developed industrial system. In these and other European countries a much higher proportion of the population is supported by industries than in India (see Table 3). 36 per cent of the population of Holland depends for its livelihood on Industry, and about 40 per cent each in England and Wales and Belgium. In

England and Wales agriculture supports about 7 per cent of the population as compared with 71 per cent (or more) in India.

With the growth of industries there was a decrease, both in absolute numbers and relatively to the total population, in the agricultural population of Germany.

The total number of persons dependent on agriculture, fishing and hunting in Germany decreased from 19·2 millions in 1882 to 17·7 millions in 1907—from 42·5 per cent of the total population to 28·6 per cent. During the same period, those dependent upon mining and industry increased from 16·1 millions (35·5 per cent of the total population) to 26·4 millions (42·8 per cent) and those dependent upon trade and transport, from 4·5 millions to 8·3 millions (from 10·0 per cent of the total population to 13·4 per cent).

Between 1895 and 1913 imports into Germany increased from 4,246 to 10,770 million Marks and exports from Germany from 3,424 to 10,096 million Marks. These figures, says Waltershausen, show "the important share of Germany in world economy."\* During this period Germany was becoming an industrial country, which may be inferred from the increase in the exports of manufactured goods, and in the imports of raw materials. Germany was, however, able to avoid the one-sided development of a country like England, which enabled her to resist the Allies for more than four years, though she was cut off from the rest of the world.

\* *Deutsche Wirtschaftsgeschichte 1815-1914*, p. 461.

The development of German industries was at the expense of agriculture, and of cottage industries. We have already seen that there has been an absolute decrease in the numbers supported by agriculture in Germany; as regards her cottage industries it is significant that in 1907, while 90 per cent of the total number of businesses were small businesses (employing 1—5 persons), these businesses gave employment to only 29·1 per cent of the total number of workers. The large businesses (employing more than 50 persons), 1·3 per cent of the total number of businesses, employed 47·7 per cent of the workers.

It has been well said that “The history of cottage industries is the history of capitalism.” The decay of cottage industries is undoubtedly due to the rise of capitalism. There is no branch of handwork which has not been affected by capitalism in the leading European countries.

It should be clear that industrial development (even when cottage industries and agriculture are declining), enables a country to support a larger population, and at a higher level of comfort than agriculture alone.

#### INDUSTRIES IN INDIA

We have seen that the density of population in India varies according to agricultural conditions, as determined by rainfall, irrigation and the configuration of land. We have cottage industries and also important factory industries, but they exercise a negligible influence on the density of population. The main support of the population is pasture and agriculture.

The following table shows the number and proportion of earners and working dependents engaged in pasture and agriculture and industries:—

TABLE A

1931

*Earners and working dependents in 1000 (both sexes).*

	Total.	Exploitation of Animals and Vegetation.	Industry.	Proportion % of Col. 3 to total (Col. 2).	Proportion % of Industry to total.
India ..	153,886	103,295	15,353	67.1	10.0
Provinces ..	116,317	78,188	11,636	67.2	10.0
Assam ..	3,878	3,252	292	83.8	7.5
Bengal ..	14,420	9,857	1,269	68.3	8.8
Bihar & Orissa	15,548	12,059	1,030	77.6	6.6
Bombay ..	8,511	5,592	1,016	65.9	11.9
Burma ..	6,210	4,322	665	69.4	10.7
Central Provinces & Berar	8,259	6,658	656	80.6	7.9
Madras ..	25,904	12,591	2,269	48.6	8.8
N.-W. F. P. ..	853	529	108	61.7	12.6
Punjab ..	8,327	5,040	1,568	60.5	18.8
U. P. ..	23,550	17,862	2,630	75.4	11.2

In India as a whole as well as in the Provinces the proportion of earners and working dependents to the total is 10 per cent. The proportion varies in different provinces, from 7.5 per cent in Assam to 18.8 per cent in the Punjab.

Earners and working dependents do not represent the entire population. There are also non-working dependents to be taken into account. According to the Census Commissioner for 1931, 11 per cent of the entire population is dependent on Industry. The proportion of the population dependent on agriculture is considerably more than 67 per cent, which is the percentage of agricultural earners and working dependents to the total number of workers and earning dependents.

The Punjab is not an industrial province. As shown by Table B excepting Assam and the N.-W. F. Province, it has the smallest number of factory employees (49,549) in British India, and yet of all the Provinces it shows the largest proportion of earners and working dependents supported by Industry. What is the explanation of this riddle!

Most of those engaged in Industry in the Punjab, as in other Provinces, are cottage workers. Factory industries support less than 1 per cent of the population. About 10 per cent of the population is supported by cottage industries.

The figures in Table A above only mean that the Punjab has more cottage workers relatively to her population than other provinces.



The following table compares male earners in certain industries in Bombay and the Punjab:—

TABLE B

*Male earners in certain industries in Bombay and the Punjab in 1000*

Order	Bombay.	Punjab.
5. Textiles ..	297	271
6. Hides and skins ..	13	11
7. Wood ..	82	154
8. Metals ..	35	76
9. Ceramics ..	39	107
10. Chemical products ..	16	38
11. Food industries ..	26	49
12. Industries of dress and the toilet ..	152	341
14. Building industries ..	54	33
17. Miscellaneous and undefined of which ..	66	165
Group 98. Makers of ornaments and jewellery ..	36	46
Group 100. Scavenging ..	17	109
TOTAL ..	780	1,245

(Source: *Census of India, 1931, Vol. II, Occupation Tables*).

In 1930, the Punjab had only 10 textile factories as compared with Bombay's 222, but the number of male workers in textile industries in the Punjab was not much less than that for Bombay. The Punjab has more hand-weavers than Bombay.

Industries of dress and the toilet are mostly unorganised industries. They give employment to more than twice as many workers in the Punjab as in Bombay. A group included under Order 17, "Miscellaneous and undefined" is 'scavenging.' The Punjab has more than six times as many scavengers as Bombay. This is all the significance of the higher proportion of industrial workers in the Punjab. (18·8 per cent) as compared with Bombay (11·9 per cent) and Bengal (8·8 per cent).

### PRESSURE ON AGRICULTURE

Where the population is mainly dependent on agriculture, where Industry supports a comparatively negligible proportion of the population, and where even that proportion tends to decline, it is obvious that with the growth of numbers the pressure on the soil must increase, unless the agricultural resources of the country are expanding at a more rapid rate than the population.

Between 1921 and 1931 the density per square mile increased from 225 to 248 in British India, and the population increased by ten per cent. But the net area sown with crops is practically stationary.

## NET AREA SOWN WITH CROPS IN BRITISH INDIA

Year.	Million Acres.	Year.	Million Acres.
1911-12	.. 216	1921-22	.. 223
1912-13	.. 224	1922-23	.. 225
1913-14	.. 219	1923-24	.. 222
1914-15	.. 228	1924-25	.. 227
1915-16	.. 222	1925-26	.. 226
1916-17	.. <u>230</u>	1926-27	.. 226
1917-18	.. 228	1927-28	.. 224
1918-19	.. 201	1928-29	.. 223
1919-20	.. 223	1929-30	.. 228
1920-21	.. <u>212</u>	1930-31	.. <u>229</u>
Average 1911-12 to 1920-21: ..	220	Average 1921-22 to 1930-31: ..	226

The net area sown fluctuates from year to year according to seasonal conditions. For example, it fell from 228 million acres in 1917-18 to 201 million acres in 1918-19. The decade ending in 1931 was favourable to crops and the acreage sown with crops fluctuated about the normal level. The average for 1921-22 to 1930-31 was, however, only 3 per cent greater than that for the preceding decade.

The progress of agriculture did not keep pace with the growth of numbers in the decade 1921-31.

Under such conditions the land can support larger numbers only on the assumption that the cultivators accommodate themselves to a lower standard of living. That must happen, particularly when agricultural prices fall heavily as they have done.

The pressure on the soil is more severe in some provinces than in others. It is undoubtedly severest in two provinces: Bihar and Orissa and the United Provinces.

Per agricultural worker, both male and female ('total earners' principal occupation) there were in 1930-31 2.5 acres actually sown with crops in the United Provinces and 2.1 acres in Bihar and Orissa.

Among the Provinces and States which lose by migration the United Provinces and Bihar and Orissa are the most important. In 1921-31, the United Provinces lost 975,000 and Bihar and Orissa 1,568,000 persons through emigration.

The emigrants from Bihar and Orissa chiefly go to Bengal and Assam. The Census Commissioner for Bihar and Orissa, 1931, says:

"The extent of the migration from Bihar and Orissa to Bengal may be gauged from the fact that, home-loving and firmly rooted in the soil as its people are, one person out of every 30 born in the province was found to be residing in Bengal when the present census was taken."7 And Bihar and Orissa supply the tea industry of Assam with about twice as many labourers as all the rest of India put together.

The emigrants from the United Provinces leave their Province to seek their fortunes in Bengal, Assam and Burma in the east, Punjab and Delhi in the west, and Bombay, Central India Agency, and the Central Provinces and Berar in the south. Mr. Turner, Census Commissioner

<sup>7</sup> Report, p. 111.

for the United Provinces, 1931, draws attention to the increase, by 200,000 since 1921, in the loss of males through emigration, but does not regret it. He calls the outlet that emigration provides a "blessing";

"The pressure of the population on the soil in this province is severe, and growing heavier year by year. There has been no widespread complaint of shortage of agricultural labour at any time during the past decade, and since the fall in prices of agricultural produce labour has been surplus to requirements in the rural areas. Industrialists in this province have experienced no difficulty in securing all the labour they required, and in fact the development in industries has been far too slow to absorb the surplus labour resulting from a rapidly increasing population and a lessened demand for agricultural labour. As the industries of the province develop there is little doubt that labour will cease to emigrate from the province in view of the inborn dislike of the average Indian of travelling far from his home village."<sup>8</sup>

### WHY PEOPLE EMIGRATE ?

Mr. Turner looks upon emigration from the United Provinces as a 'blessing' since it relieves the pressure on the soil. His predecessor Mr. Edye took a different view.

Mr. Edye contended "that density determined the percentage of gross cultivated to cultivable area," and stated that "under present conditions the density will continue to increase, so far as its increase is not checked by disease, until the limit is reached beyond which the percentage cannot expand." He held that the figures of density in relation to the percentage of gross cultivated to cultivable

<sup>8</sup> Report for United Provinces, 1931, p. 201.

area showed "that the percentage is still capable of expansion even in the most congested divisions,"\* and that the limit had not yet been reached in any part of the Province, except perhaps in the lands surrounding Farrukhabad City.

On the subject of migration from the United Provinces Mr. Edye wrote:

"It is remarkable that in spite of the greatly increased demand for labour in this Province that has been witnessed during the decade, the number of emigrants has not decreased appreciably. This fact bears out what must be the impression of anyone who has acted as an Emigration Officer under the Emigration Act, as the writer did for several years—that emigrants generally leave their homes not to better their prospects but to escape domestic unpleasantness."

Mr. Edye's conclusions differ in certain respects from those of his predecessor, Mr. Blunt, Census Superintendent in 1911. Mr. Blunt regarded the figures of cultivable area as misleading, for all the area shown as cultivable is not really such. As regards the Eastern districts he wrote:—

"The pressure on the land has long been considerable in these tracts, and must still be very great, though plague has ruthlessly relieved it."†

And again:—

"There were signs ten years ago that the most densely inhabited tracts in the Province, the Eastern Plain and the Eastern Sub-Himalayas, were beginning to seriously feel the pressure of the population on them; but the pressure is relieved,

\* Report, 1921, p. 17.

† Report, 1911, p. 49.

not by internal emigration to other parts of the Province, but by emigration to the east, to Bengal and Assam, and it was the growth of this emigration which showed that the tract was getting overpopulated. But the pressure now is far less than it was ten years ago, for plague has proved a terrible though effective adjunct to emigration in relieving it.”\*

That people who are attached to their home and soil emigrate on account of domestic unpleasantness, and not to better their prospects, seems absurd when we keep the economic conditions in Bihar and Orissa and the United Provinces in view. Perhaps domestic unpleasantness itself is caused by unfavourable economic conditions and growing poverty.

Messrs. Risley and Gait, Census Commissioners for India, 1901, had no doubt that there were certain localities, chiefly in parts of Bihar and in the east of the United Provinces, “where the pressure on the soil is already felt,” but they hoped that scientific farming would increase the produce of the land, so that “room would be made for an even greater population.”<sup>9</sup> They also said that it could be plainly argued “that the dense population of certain parts of Bihar is only rendered possible by the readiness of the people to go on reducing their standard of living rather than tempt fortune by emigrating in search of spare land.”<sup>10</sup>

These hopes entertained in 1901 have not been realised. Pressure on the soil has been relieved not by scientific farming or the progress of agriculture, but in part

\* Report 1911, p. 49.

<sup>9</sup> Report, 1901, Vol. I, pp. 86-7.

<sup>10</sup> Report, 1901, Vol. I, p. 4.

by continuous emigration, and chiefly by the hand of death. The population of the United Provinces decreased by 1·1 per cent in 1901-11, and 3·1 per cent in 1911-21; that of Bihar and Orissa increased by 3·8 per cent in 1901-11 but decreased by 1·4 per cent in 1911-21. In the last decade, 1921-31, the population of the United Provinces increased by 6·7 per cent and that of Bihar and Orissa by no less than 10·8 per cent. The Indian cultivator has a remarkable capacity for reducing his standard of living, and living practically on nothing, but even then there is little doubt that pressure on the soil will be relieved in the coming years (as happened in 1911—21) by famine and epidemics.

#### SUMMARY

The position regarding the pressure on agricultural resources in the different provinces is summarised below in the light of the census reports.

#### UNITED PROVINCES

“A considerable body of agriculturists” in the Indo-Gangetic Plain, Central and East and Sub-Himalaya East “cannot make ends meet on the proceeds of their cultivation”;<sup>11</sup> a large proportion of tenants have holdings below the average. In 1929, 54 per cent of the tenants were found indebted. The proportion must have risen since then, for the collapse in agricultural prices “must have wiped out the reserves of many of the tenants and smaller

<sup>11</sup> *U. P. Report*, Vol. I (1931), p. 46.



landlords.”<sup>12</sup> The possessions of the ordinary peasant consist in a little land, a pair of bullocks and seed for the next crop, and bare necessities, *i.e.*, “the clothes he stands up in,” cooking utensils and an unsaleable house. Bullocks are often sold after ploughing and re-purchased later. “In many cases even seed has to be borrowed for sowing.”

“What are the possible remedies”? asks the Census Commissioner.

We have already seen that emigration as an outlet for surplus numbers is a ‘blessing.’ Other suggested remedies are (a) development of subsidiary industries such as rope-making, weaving, spinning, blanket-weaving, etc., and (b) growing more of the money-making crops, *e.g.*, cotton and sugarcane.

The pressure on the soil cannot be alleviated by breaking up fresh soil, for “there is very little fresh soil available in the province, especially in those areas where it is most required.”<sup>13</sup>

The peasant may borrow less for unproductive purposes, and he may borrow at a lower rate of interest. But there is not much scope for saving through a fall in the standard of living: “The cultivator’s standard of comfort being already miserably low, it is wholly impossible to suggest that he should reduce his expenditure on his own personal needs and those of his family or of his animals.”<sup>14</sup>

<sup>12</sup> *Ibid.*, p. 48.

<sup>13</sup> *Ibid.*, p. 48.

<sup>14</sup> *Ibid.*, p. 48.

## BIHAR AND ORISSA

In 1921-31 there was no material addition to the natural resources of the province. On the contrary, the proportion of the total area under cultivation in 1931 was slightly smaller than in 1921. "Nor can it be asserted that the yield per acre of the soil has been increased to any great extent by new and improved methods of exploitation."<sup>15</sup> Agriculture is there to support the growing population. Are there any other resources? "Practically none,"<sup>16</sup> says the Census Commissioner. A very gloomy outlook for this unfortunate province, one must say.

What is the remedy, then? The Census Commissioner can only suggest that the agriculturist should learn to do without the "'luxuries' to which he has grown accustomed of late," that he should "cut his coat according to his cloth"<sup>17</sup>—which in more plain language means, that he must reconcile himself to a fall in his standard of living, low as it already is. The population "would appear to be exceptionally vulnerable," *i.e.*, an attack of famine followed by epidemics would take a heavy toll of life.

The outward flow of emigration is expected to "receive a fresh impetus."

## CENTRAL PROVINCES AND BERAR

The situation in this province is more favourable. There is no acute pressure of population in any part of the Province. Except in Berar and some of the Chhatisgarh

<sup>15</sup> *Report*, 1931, p. 72.

<sup>16</sup> *Ibid.*, p. 72.

<sup>17</sup> *Ibid.*, p. 75.

States hardly more than 50 per cent of the cultivable area is actually under cultivation, "but yet in spite of the heavy increase of population since 1921 there is no appreciable change in the net area cultivated."<sup>18</sup>

It is thought that the time is still far distant when the law of decreasing returns would come into operation in this province. It is also pointed out that there is still room for the extension of cultivated area in many tracts. Valuable crops other than cotton can be grown, and improved and intensive methods of agriculture adopted. Finally, the development of industries, "which has recently been occupying the attention of many leading politicians" may be expected to provide suitable occupation for a larger proportion of the population.

### BOMBAY

As a result of the trade depression "numbers have been forced back on the land."<sup>19</sup> In consequence pressure on the land has increased: "A greater burden than ever is being thrown on agriculture as a source of livelihood." The decade 1921-31 witnessed "no great new sources of wealth." The effects of the Lloyd Barrage at Sukkur in increasing prosperity will not become noticeable for many years; the result is that the increase of population "is temporarily an embarrassment."

What is the solution?

Organised industries must be developed: "in the future industry on organised lines must become increasingly

<sup>18</sup> *Report*, 1931, p. 63.

<sup>19</sup> *Report*, 1931, p. 24.

important and increasingly necessary for the well-being of the community." But that is a slow process. "The solution must be for a time a tightening of the belt, which means a slight lowering in the standards of comfort to which the present generation has become accustomed." The Census Commissioner expects that adjustment will take place by a slowing down of the rate of increase; therefore the full effects of the growth in 1921—31 would be better estimated in 1941.

#### MADRAS

"Over much of the rural tracts of the Presidency the land is supporting as many people as under the present conditions it can without an alteration in standards."<sup>20</sup> The saturation point has been reached in certain parts, with centres at Pudukkottai and Musiri. "Other adjoining areas are in the position that a strong and continuing emigration flow is necessary to maintain population level of subsistence."

The Census Commissioner takes an optimistic view of the possibilities of industrial development, and in this development lies the chief hope of improvement. "Possibilities of agriculture on present methods have more or less reached a maximum, and the Presidency can no longer feed itself."<sup>21</sup> The Census Commissioner also hopes that as the standard of living rises, the rate of growth of numbers will slow down "as has happened elsewhere." He forgets that social and other conditions in India are not the same as

<sup>20</sup> *Report*, 1931, p. 46.

<sup>21</sup> *Ibid.*, p. 47.

'elsewhere,' and that very grave doubts may be entertained regarding the possibility of a rise in the standard of living in the coming years—such rise at any rate as would automatically lead to a fall in the birth-rate.

### BENGAL

Net area sown in Bengal in 1930-31 was only 2.6 acres per cultivator, taking males and females together ('total earners' principal occupation'). It may therefore be thought that pressure on agriculture in this province is sufficiently heavy. But the Census Commissioner thinks that the possibilities of agricultural improvement in Bengal are so great that Bengal could support at its present standard of living a population very nearly twice as large as that recorded in 1931 (50 millions).<sup>22</sup> Bengal agriculture can thus support 100 millions without a fall in the standard of living—irrespective of the fall of prices, and of the dwindling demand for jute! How does the Census Commissioner reach this remarkable conclusion? Of the total cultivable area only 67 per cent is now actually under cultivation. Suppose the whole of the area is brought under cultivation, and yield per acre increases 30 per cent, then the simple rule of three ( $\frac{1.67}{1.00} \times \frac{3.0}{1.00} = 1.94$ ), gives the result stated.

The Census Commissioner forgets that theoretical conclusions, based on the simple rule of three, are more difficult to realise in actual practice. First, it may be doubted if the whole of the area which is described as cultivable but

<sup>22</sup> Report, 1931, p. 63.

is at present not cultivated, is actually cultivable. Secondly, considering the financial resources of the ryot, the adoption of intensive methods of cultivation is not so easy as one may imagine. Thirdly, the collapse of agricultural prices, the growth of substitutes for jute, and the whole situation created by the agricultural revolution in the West have the same unpleasant meaning for the cultivator in Bengal as in other provinces. The Bengal cultivator must tighten his belt as cultivators are doing elsewhere.

As regards the voluntary limitation of births, the Census Commissioner recognises that it is impossible under existing conditions. Such methods are repugnant to common sentiment in India, and are too expensive so far as the great majority of the people are concerned. But in the West fertility is found to decrease with the increase of wealth and intellectual interests. The Census Commissioner, on the analogy of the West, expects that as the death rate declines in India (which is the object of public health measures) there will be a corresponding decrease in the birth rate with the improvement of the standard of living, an increase in the spread of education, and a further emancipation of women and the abolition of the *pardah* system.<sup>23</sup> His argument is unconvincing. The analogy of Western Europe cannot be accepted without such important reservations as make it thoroughly useless. How long shall we take to educate the whole population, and to change their religious mentality? Is the standard of living tending to rise or fall as the result of the recent economic changes?

<sup>23</sup> Report, 1931, p. 65.

## PUNJAB

As compared with the 14 per cent increase in population, the number of cultivators (workers) increased 12·7 per cent. It is probable that the population dependent on agriculture has increased by even a larger percentage. Referring to the "very big increase in the already numerous category of cultivators" the Census Commissioner says:

"The other resources of the Province are obviously not keeping pace with the rate of increase in the population."<sup>24</sup>

The effect of the trade depression on Punjab agriculture has been fully discussed in *India in the Crisis*, Chapter 1.

## NORTH-WEST FRONTIER PROVINCE

For its economic development, the N.-W. F. Province does not depend on its own resources. Being an "All-India" as well as an Imperial responsibility, it is liberally assisted with funds by the Government of India. "The wealth expended in this small corner of India has in fact been out of all proportion to the local means of production." But on account of financial stringency, the grants may be on a reduced scale in the future. There are also moral objections to the dependence of a community on another for means of subsistence.<sup>25</sup> The N.-W. F. Province must learn to stand on its own economic legs.

<sup>24</sup> Report, 1931, pp. 221-22.

<sup>25</sup> Report, 1931, p. 33.

The economic position is not reassuring. Industries are declining. The decline is not due to the general trade depression. "Rather, it is due to increased activity in trade, for imports of factory-made articles from Hindustan and other parts of the world are destroying the markets which local products used to enjoy."<sup>26</sup> The textile industry has suffered most from machine-competition.

Agriculture is the main existing source of wealth, but it "has almost reached the limit of its expansion."<sup>27</sup> The strain on the agriculturist increased in the last decade (1921-31).

#### ASSAM

Assam gains by migration. The gain amounted to 78,000 in 1901—11, 412,000 in 1911—21, and 122,000 in 1921—31. The percentage of foreign born persons in Assam in 1931 was 15·2. The major provinces which contribute to the population of Assam in the order of their importance are Bengal, Bihar and Orissa, Central Provinces, United Provinces and Madras.

There is room for growth of numbers in this province: "Except in a few places there is still little pressure of population on the soil which year after year brings forth abundant harvests with little toil."<sup>28</sup>

Disease is the most important check on the growth of numbers, "and of disease," says Mr. Mullan, I.C.S., "God knows, we have enough." But the last decade was

<sup>26</sup> *Ibid.*, p. 123.

<sup>27</sup> *Ibid.*, p. 33.

<sup>28</sup> *Report*, 1931, p. 31.



healthy, and *kala-azar* is well under control. Voluntary limitation of births is practically unknown.

The population of the Assam valley was estimated at 800,000 in 1835; today it is about 5 millions. "*Si monumentum requiris*—If you seek for a monument to British administration," says Mr. Mullan, "read the history of Assam from 1800 to 1840, and then look about you."<sup>29</sup>

### OUTLET FOR SURPLUS POPULATION

Assam can receive more immigrants, but it has to be remembered that it is rapidly filling up. In the Goalpara district there is little room left for expansion; there was an enormous increase of settlers in the Kamrup district in 1921—31. In the Darrang district also the settlers are rapidly occupying any available waste land. The same seems to apply to Nowgong district, where the settlers have caused trouble by squatting in Government reserves, or forcibly occupying the land of local people.<sup>30</sup> While there is room for expansion in Assam, it is certainly not possible to dump the entire surplus agricultural population of India into Assam, or Assam and Burma both.

The pressure on the soil is not so keenly felt in the Central Provinces as in some other parts of India. This Province receives immigrants (227,000 net) in 1921—31. But so does Bengal (772,000 net in 1921—31). All that can be said is that general economic conditions do not

<sup>29</sup> *Ibid.*, p. 31.

<sup>30</sup> *Census Report, India, 1931*, pp. 65-66.

drive the people from the province, except when crops fail.

External emigration affords little relief. The number of those who emigrated during the decade 1921—31 is estimated at about 1 million only.

Destination of emigrants.	Persons.
Malaya .. .. .	510,000
Ceylon .. .. .	365,000
Fiji .. .. .	15,000
Portuguese E. Africa .. .. .	4,000
United Kingdom .. .. .	4,000
Elsewhere .. .. .	12,000
	1,000,000

Emigration is controlled by the Emigration Act of 1922, under which the emigration of unskilled labour is prohibited except to such countries and under such conditions as may be specified by the Governor-General in Council. The effect of this Act has been to put a stop to the emigration of unskilled labour except to Malaya and Ceylon. The emigration of skilled labour is negligible. The total in 1921—30 was 130 (79 tailors, 29 theatrical artists, 18 bricklayers, 2 match-manufacturers, and 2 welders).

The Indian Agricultural Commission stated in 1928 that the annual amount of emigration to Ceylon and Malaya satisfied their economic demand and could not be adequately increased. Ceylon indeed is "slowly reaching the saturation point in absorbing Indian labour on the estates." The total number of Indians in Ceylon in 1931 was 778,000 persons, and in Malaya (British) 624,000.

Migration of labour between province and province is unrestricted by Government with the exception that certain provinces can regulate or prohibit the migration of labourers to the tea-gardens in Assam. The Agricultural Commission recommended the abolition of all restrictions on the movement of labour throughout India. The Commission found that migration within India was not taking place to the extent which might have been expected, in spite of the fact that pressure on the soil was "extreme" in North Bihar, in the deltaic areas of Bengal and Madras, and in certain parts of the United Provinces. The factors which limit the internal movement of labour are three: (a) attachment to land, however small be the holding of the cultivator, (b) indebtedness, which makes it difficult for the cultivator to leave the village permanently, and (c) "the important factor of ill-health."

Even if internal migration is not hindered in any way, it does not afford any solution of our problem. As for external emigration, as we have seen, it is of less consequence still.

#### A HOPELESS SITUATION

We are confronted with a hopeless situation. The problem of relieving the growing pressure on the soil is insoluble.

The maximum population which agricultural occupations can support in Europe is 250 per sq. mile. The number is higher in the United States of America, and the island of Porto Rico in the West Indies has an agricultural population of nearly 400 to the sq. mile. But the number

supported by agriculture is much greater than 400 in many parts of India. Excepting Assam and the Central Provinces, there is no province in which the growth of numbers during the last decade has not placed a heavier strain on the land than it can bear under existing conditions.

Can the existing conditions of cultivation be changed?

Not under the existing economic system. India may utilise the results of biological progress to a certain extent. The cultivator may use better seed for sowing. But no revolutionary change in the methods of cultivation can be expected. India is a land of small peasants. But our methods of cultivation are extensive because the peasant does not possess the means of intensifying his cultivation. Under the existing system of land ownership India has no use for agricultural machinery. For motor tractors and combines one must have large farms, hundreds of acres in extent. Besides, there is a good deal of surplus labour in the villages at present. The use of labour-saving appliances in agriculture will create more surplus labour. The modernisation of Indian agriculture is impossible unless it is preceded by a very great development of industries.

A growing population requires more food. But the problem of population in India is not a food problem. The relation of population to food supply is discussed in Appendix D to Chapter 1 of *India in the Crisis*. It would be dangerous to restrict the area under food grains, as our surplus of food has dwindled with the growth of numbers. But India can import food without difficulty. We may not be able to modernise our agriculture, but nothing prevents us from benefiting by agricultural progress in other countries.

If the existing duty on wheat were removed the import of Australian wheat would increase.

The real problem is twofold: (1) limitation of births, and (2) finding non-agricultural occupations for the agricultural population.

Increase in education and culture would restrict births, but more than 90 per cent of the population are at present illiterate. (The number of literates increased from 22·6 millions in 1921 to 28·1 millions in 1931 (aged 5 and over). The total number of persons of ages 5 and over in the whole of India in 1931 was 296·3 millions. The number of illiterates in 1931 was 268·2 millions. Assume now that the population ceases to increase, so that we have to educate just these 268 millions. At the present rate of progress (5·5 million of fresh literates in a decade), we should require about 49 decades, or 490 years to make 268 millions literate.

But what does literacy in the meaning of the Census imply? Does it mean real education and culture, such as might lead the people to restrict births? For that we may have to wait for a further 1000 years.

A change in the present religious outlook of the masses, which led them to attach more importance to happiness and well-being in this world than to life in the next, would most certainly modify their view of marriage and child-beggetting. But what has the State done to bring about this highly desirable change in outlook? The State has assumed an attitude of neutrality in matters affecting religion. Indirectly the policy of the State (*e.g.*, in regard to communal representation) encourages communalism and religious

fanaticism. It may also be incidentally mentioned that communal representation acts as a spur to the growth of numbers.'

We are doing nothing to lead the people away from religion, or to encourage them to appreciate "a materialistic standpoint."<sup>31</sup>

Dr. Hutton refers to the movement towards artificial birth control in India and says that it is "perhaps less hampered by misplaced prudery than in some countries which claim to be more civilized." But Neo-Malthusian Leagues in India have very limited utility. They would limit births among classes where limitation is not an urgent necessity. They leave the rural masses entirely unaffected. The difficulty in the case of the villagers is their religious outlook, even if we ignore the question of cost of contraceptives.

It is obvious that there is little possibility of pressure on the soil being relieved by the voluntary limitation of births.

The question of subsidiary industries, or of rural reconstruction, is discussed in a separate chapter. The development of factory industries would solve the problem. And there is some evidence of a change in Government policy regarding manufacturing industries. But the industrial development of India is proceeding on wrong lines. We are concentrating on the production of consumable goods and have almost entirely neglected the manufacture of capital goods. It is a process of building from the top. It is as if in building a house one insisted

<sup>31</sup> *Census Report, India, 1931, p. 32.*

on completing the top storey before laying down the foundations. The manufacture of machinery, modern means of communication and transportation by land, sea and air, and of essentially modern articles for which there is a growing demand in India, would create employment for millions of people, but political obstacles to industrial development on these lines are insuperable.

India needs a change of system which may alter the whole structure of her economy. Under the existing system, the proportion of the population dependent on Industry tends to decline with the progress of factory industries. The introduction of machinery causes unemployment in India and creates employment elsewhere.

**TABLE I**  
POPULATION DISTRIBUTED BY PROVINCES, VARIATION PER CENT IN THE POPULATION AND MEAN

	Area in 100 sq. miles.	DENSITY PER SQ. MILE				Mean density per sq. mile.		
		Population in 1931	Population in 1921	Percentage of variation.		1931	1921	1911
India ..	1,809	353	319	+10.6	+1.2	195	176	174
Provinces ..	1,096	272	247	+10.0	+1.3	248	225	222
States & Agencies	712	81	72	+12.8	+1.0	114	101	100
<i>Major Provinces.</i>								
Assam ..	55.0	8.6	7.5	+15.6	+13.4	157	136	120
Bengal ..	77.5	50.1	46.7	+7.3	+2.7	646	602	587
Bihar & Orissa ..	83.0	37.7	34.0	+10.8	-1.4	454	409	415
Bombay Presidency, including Aden ..	123.7	21.9	19.3	+13.3	-1.8	177	156	159
C. P. & Berar ..	99.9	15.5	13.9	+11.5	-0.0	155	139	139
Madras ..	142.3	46.7	42.3	+10.4	+2.2	328	297	291
N.-W. F. P. ..	13.5	2.4	2.3	+7.7	+2.5	179	167	163
Punjab ..	99.2	23.6	20.7	+14.0	+5.7	238	209	197
U. P. ..	106.2	48.4	45.4	+6.7	-3.1	456	427	440
Burma ..	233.5	14.7	13.2	+11.0	+9.1	63	57	53
<i>Larger States.</i>								
Baluchistan ..	80.4	.4	.38	+6.9	-9.8	5	5	5
Baroda ..	8.0	2.4	2.1	+14.9	+4.6	299	260	249
Gwalior ..	26.4	3.5	3.2	+10.3	-1.3	134	121	123
Hyderabad ..	82.7	14.4	12.5	+15.8	-6.8	175	151	162
Jammu & Kashmere	84.5	3.6	3.3	+9.8	+5.1	43	39	37
Mysore ..	29.3	6.6	6.0	+9.7	+3.0	224	204	193
Rajputana Agency	129.1	11.2	9.8	+14.2	-6.5	87	76	82

*Census of India, 1931, Vol. I, p. 35.*



TABLE II  
 AREA, POPULATION AND DENSITY PER SQUARE KILOMETRE  
 IN CERTAIN COUNTRIES

		Area in 1000 sq. km.	Population in 1000	Density per sq. km.
Germany	..	469	64,776	138
Austria	..	84	6,733	80
Belgium	..	30	8,159	272
Bulgaria	..	103	6,067	59
Denmark	..	43	3,590	83
Spain	..	503	23,531	47
France	..	551	41,860	74
Greece	..	130	6,440	49
Hungary	..	93	8,781	94
Irish Free State		69	2,957	43
Italy	..	310	41,699	134
Norway	..	323	2,831	9
Netherlands	..	34	8,183	241
Poland	..	388	32,638	84
Portugal	..	90	6,360	71
Rumania	..	295	18,166	62
United Kingdom		244	46,340	190
Sweden	..	448	6,162	14
Switzerland	..	41	4,031	100
Czecho-Slovakia		140	14,823	106
U. S. S. R.	..	21,176	163,200	8
U. S. S. R. Euro- pean Territory		5,999	128,800	22
Japan	..	382	65,500	171
Canada	..	9,557	10,460	1
U. S. A.	..	7,839	124,450	16
Egypt	..	1,000	14,992	15
Australia	..	7,704	6,526	0.9
India	..	4,675	352,838	75

(Source: *Statistical Year-Book of the League of Nations, 1932-33*).

TABLE III

## POPULATION SUPPORTED BY AGRICULTURE AND INDUSTRY

Country.	Date of Census.	Agriculture, fish- ing, etc.	Industry.
Union of South Africa	1921	31.2	18.9
Egypt ..	.. 1917	69.2	8.4
Canada ..	.. 1921	35.0	26.9
U. S. A. ..	.. 1920	26.3	30.8
Germany ..	.. 1925	30.5	38.1
England & Wales (B) ..	1921	6.8	39.7
Belgium ..	.. 1920	19.1	39.9
Denmark ..	.. 1921	34.8	27.0
France ..	.. 1921	41.9	28.8
Italy ..	.. 1921	56.1	24.0
Norway ..	.. 1920	36.8	27.4
Netherlands	.. 1920	23.6	36.1
Poland ..	.. 1921	75.9	8.7
Portugal ..	.. 1911	57.5	21.5
Sweden ..	.. 1920	33.7	23.8
Switzerland	.. 1920	25.9	44.1
Australia ..	.. 1921	22.9	31.2
New Zealand	.. 1921	27.1	27.5

(Source: *International Statistical Year-book, 1927*—League of Nations, pp. 44-45).

TABLE IV

## FACTORIES SUBJECT TO THE INDIAN FACTORIES ACT

	No. of Factories.	Average No. of hands employed daily.
Madras .. ..	1,527	142,549
Bombay .. ..	1,550	370,704
Bengal .. ..	1,444	563,877
U. P. .. ..	376	92,161
Punjab .. ..	526	49,549
Burma .. ..	980	98,701
Bihar and Orissa .. ..	282	66,315
C. P. and Berar .. ..	695	68,856
Assam .. ..	620	45,820
N.-W. F. P. .. ..	29	1,251
Total, including smaller Provinces.	1930 8,148	1,528,302
	1921 3,965	1,266,395

(Stat. Abstract for British India, 1930-31).

## CHAPTER II

### TAXATION OF AGRICULTURE

The growth of numbers, combined with the heavy fall in agricultural prices, has impoverished the agriculturist. His disease-resisting power is weaker today than a decade ago, and the heavy taxation to which he is subjected does not improve matters for him.

The Indian peasant is one of the poorest peasants in the world, and also one of the most heavily-taxed. Even if it was true in 1922 that effective taxation in India represented only 30 per cent of taxable capacity as compared with 82 per cent in the United Kingdom,<sup>1</sup> at the present time the agricultural population, representing more than 71 per cent of the total population, is being taxed beyond its taxable capacity. It is beyond question that during the past 3 or 4 years the peasant has paid Government dues by selling gold and incurring debt. The export of gold now exceeds 233 crores, and a great part of the gold exported is 'distress' gold. The exodus of gold continues.

The Indian Taxation Inquiry Committee of 1924-25 investigated the problem of taxation at a time of relative prosperity. A new situation, so far as the peasant is concerned, has been created by the agricultural revolution and the collapse of prices. It will be admitted that these cataclysmic changes have seriously affected the taxable

<sup>1</sup> See *Science of Public Finance* by Findlay Shirras.

capacity of the peasant. There is urgent need for a re-examination of land-taxation in the light of the new situation.

### NEW PRINCIPLES OF ASSESSMENT

In the Punjab new principles of assessment have been formulated in connection with the re-settlement of the Lyallpur district, which is proceeding. These principles deserve our careful attention, as it is thought they introduce "a revolutionary change in the land revenue system of the Punjab." In the course of a press interview Sir Sikander Hayat (then Revenue Member of the Punjab Government), speaking as a zamindar said: "Never since the advent of the British, or for the matter of that under any rule, has such a big concession been granted to zamindars in the Punjab."

Let us examine the "revolutionary change" in the methods of assessment which the new system involves, and also the 'big concession' that it makes to zamindars.

The prices of agricultural produce have always played an important part in assessment. Under the old system revenue rates were fixed in accordance with average prices of agricultural produce over a long period (due allowance being made for other factors), and it was assumed that there would be no large variation in prices throughout the period of the settlement (fixed at 40 years in 1929). Throughout the period of the settlement, then, land revenue was realised according to those rates (barring remissions in cases of local deterioration), and no change was made in the rates of assessment on account of fluctuations of prices.

Under this system the peasant stood to gain when the average level of prices rose above the prices assumed for assessment purposes. If the standard rates are so fixed as to take not more than one quarter 'net assets,' a rise of prices above the assumed prices reduces the land revenue below the standard of one-quarter 'net assets.'

But the old system became unworkable when prices fell. It is impossible for peasants to pay the land revenue at rates fixed according to the inflated prices of 15 or 20 years preceding the trade depression. The chief feature of the new system is the annual adjustment of the land revenue demand according to prevailing prices. As before, standard rates of revenue have been worked out with reference to average prices during a long period (the last twenty years). These standard rates, based on 'commutation prices,' are however, paper rates. They would not be enforced except when actual prices are as high as the commutation prices. When prices are lower, remission from standard revenue rates will be granted according to the difference between commutation prices and actual prices. If actual prices are 40 per cent lower, the remission of revenue will amount to full 40 per cent. For reasons of convenience remission in any year will be granted according to the market prices of the preceding year. It is not practicable to work out the scale of remission in any year according to the prices of that year as instalments of the land revenue are realised before the marketing of crops is complete.

If in any year market prices are higher than the commutation prices, the revenue payer will be given full advantage of the excess. But when prices are lower, a

corresponding remission would be granted, however great the difference may be. As the official communiqué on the subject states: "While Government will be bound not to exceed the maximum rates as fixed, they will give to the revenue payer the full benefit of the fall in prices, however great that may be."

In calculating the remissions three factors will be taken into consideration: (a) the percentage of the total matured area under each important crop, (b) the average yield per acre of each of those crops, and (c) the commutation price assumed for each of those crops. Assuming there is no change in (a) and (b), the amount of the remission will be solely determined by the percentage fall of prices as compared with the commutation prices.

In the concluding paragraph of the communiqué it is stated:

"In what has been said above it has been assumed that the commutation prices as sanctioned will give for each assessment circle, in accordance with the standard of one quarter net assets, revenue rates which are not on the average more than 25 per cent in excess of the revenue rates imposed at last Settlement. Under the law, as it stands at present, Government cannot impose revenue rates in an assessment circle as a whole which are more than one quarter in excess of those imposed at last Settlement, and unless the law is amended in this respect before the assessment is announced, this provision will impose an independent limit to the maxima rates which Government can fix. If, therefore, the sanctioned commutation prices give rates which are more than 25 per cent greater than the rates

imposed at last Settlement, Government will have to reduce the rates accordingly."

The increase in the rate of assessment at one settlement as compared with the preceding settlement will not exceed the limit of 25 per cent. What interests us particularly is the reference to the rule of one-quarter net assets: the standard revenue rates which will be fixed for each assessment circle will be so calculated as not to take as land revenue more than one-fourth of the 'net assets.'

A schedule attached to the communiqué gives the following commutation prices used in framing produce estimates for all the circles of the tract under settlement:

	Annas per maund			
Cotton .. .. .	..	..	..	.. 184
Gur .. .. .	..	..	..	.. 88
Toria .. .. .	..	..	..	.. 92
Wheat .. .. .	..	..	..	.. 60
Gram .. .. .	..	..	..	.. 52
Maize .. .. .	..	..	..	.. 48
	Rupces per acre			
Rice, pulses, millets, oilseeds (other than toria) and all fodder crops .. .. .	..	..	..	.. 32
Orchards, gardens, vegetables and tobacco .. .. .	..	..	..	.. 60
	Annas per maund			
Wheat straw .. .. .	..	..	..	.. 6
Gram straw .. .. .	..	..	..	.. 3

#### HOW THE NEW RULES WILL WORK

For the sake of simplicity let us assume that wheat is the only crop concerned.



Then the gross value of the crop or gross income in any area in any year will depend on the three factors mentioned above, the percentage of the total matured area under wheat, the average yield per acre, and the price. Let us call

Gross Income	..	..	..	G
Matured Area	..	..	..	A
Yield per acre	..	..	..	Y
Price	..	..	..	P
Percentage change in matured area			..	a
Percentage change in yield		..	..	y
Percentage change in price		..	..	p

The gross income or the value of G in any year, when all the three factors vary, can be easily found with the help of the following formula:

$$G = \frac{A(100 \pm a)}{100} \times \frac{Y(100 \pm y)}{100} \times \frac{P(100 \pm p)}{100}$$

If A (area)=1 (it may be 1 million acres, or 1,000 acres), Y (yield)=12 maunds per acre, and P (price)=3.75 rupees per maund, then G (gross income)=Rs. 45. Now suppose in any year the percentage changes in the three factors are as follows:

$$\begin{aligned} a &= +10 \\ y &= +20 \\ p &= -40 \end{aligned}$$

$$\text{Then } G = \frac{1(100+10)}{100} \times \frac{12(100+20)}{100} \times \frac{3.75(100-40)}{100} = \text{Rs. } 35.64$$

There is a fall in gross income of 21 per cent, and the remission of revenue would amount to 21 per cent. If, while the prices fall 40 per cent, there is an increase of 5 per cent in the matured area, but a reduction of 20 per cent in the yield, gross income will decrease to Rs. 22·68 or by 49·6 per cent, and a corresponding remission of revenue will be granted. It is seen that variation in the matured area and the yield may increase or reduce the percentage remission as compared with the percentage fall in prices.

#### QUESTION OF COSTS OF CULTIVATION

The revolutionary change in the methods of assessment makes allowance for variations in the three factors mentioned above. It completely ignores a fourth factor, which is of the greatest importance from the point of view of the zamindar, the factor of cost. Net assets, out of which the land revenue is presumably paid, do not depend merely upon variations in the percentage of matured area under the different crops, the yield of crops, and prices, but also on how the costs of cultivation (which must include the wages of the cultivator) behave when prices fall. They may fall to the same extent as prices, or by a smaller percentage. If the fall in costs is less than the fall in prices, net assets must decrease in a proportion greater than prices, and a revenue demand reduced in proportion to the fall of prices alone (matured area and yield remaining unchanged) will take more than 25 per cent of net assets.

Assume that the percentage of matured area and the yield of crops remain constant. Then gross income (G) will vary according to prices (P).

Let G = Gross income.

Let C = Cost of cultivation, including the wages of the cultivator.

Let g = Percentage fall in gross income as determined by the fall of prices.

Let c = Percentage fall in costs of cultivation.

The fall in net assets can be found when both G and C are varying with the help of the following formula :

$$\frac{100(G-C)}{100G-gG-100C+cC}$$

Let G (gross income) = 10

Let C (cost of cultivation) = 7

Let g (percentage fall in gross income) = 40

Let c (percentage fall in costs) = 40

$$\frac{100(10-7)}{100 \times 10 - 40 \times 10 - 100 \times 7 + 40 \times 7} = \frac{100}{60}$$

$\frac{100}{60}$  means that net assets have fallen in that proportion, or by 40 per cent. A remission in the land revenue of 40 per cent will take the same proportion of net assets as before the change.

But suppose while gross income falls 40 per cent costs fall only 25 per cent—g = 40 as before, but c = 25.

$$\frac{100 \times (10-7)}{100 \times 10 - 40 \times 10 - 100 \times 7 + 25 \times 7} = \frac{100}{25}$$

On account of the smaller reduction in costs, while gross income falls 40 per cent, net assets in this case fall

in the proportion of 100 to 25, or 75 per cent. A 40 per cent remission of the land revenue, as determined by the fall of prices alone (other things being equal), does not mean a reduction of the land revenue demand in proportion to the reduction of net assets. In other words, the new land revenue demand will represent a higher proportion of net assets than 25 per cent.

There is a simple formula to find the proportion of the land revenue to net assets when net assets do not fall in the same proportion as prices.

Let A = net assets.

Let L = the land revenue.

Let n = percentage fall in net assets.

Let l = percentage fall in land revenue.

Now when  $N=4$ ,  $L=1$ . This is given, for by assumption the land revenue is equal to one-quarter net assets. Let us assume that  $l=40$ , that is, when prices fall 40 per cent (other things being equal) the remission of land revenue will be 40 per cent, or exactly corresponding to the fall of prices, as has been stated in the official communiqué. But  $n$  is a valuable factor, for, as we have seen, net assets depend on the variation in costs of cultivation when prices are varying, and the fall in costs need not exactly correspond to the fall in prices, or gross income. When  $n$  is 40, or the fall in net assets is exactly equal to the remission of the land revenue (as determined by the 40 per cent fall in prices), the proportion of the land revenue to net assets is

$$\frac{L(100-l) \times 100}{N(100-n)} = \frac{1 \times (100-40) \times 100}{4(100-40)} = 25$$

or the land revenue is one-fourth of net assets. But when  $n=75$ , or the reduction in net assets is 75 per cent on account of a 25 per cent fall in costs at a time when prices fall 40 per cent, a land revenue demand which has been reduced by only 40 per cent ( $1=40$ ) will take 60 per cent of net assets:

$$\frac{1 \times (100-40) \times 100}{4(100-75)} = 60$$

The following table shows the percentage fall in net assets and the proportion of the land revenue to net assets for different values of  $c$ . It is assumed that the remission of land revenue amounts to 40 per cent in accordance with a 40 per cent fall of prices.

Percentage fall in costs when prices fall 40 per cent ( $=c$ )	Percentage fall in net assets ( $=n$ ).	Land revenue demand, which has been reduced 40 per cent only, will be
40.00	40	25 per cent of net assets.
35.72	50	30 " " " "
30.36	62.5	40 " " " "
27.15	70	50 " " " "
25.00	75	60 " " " "
21.43	80	75 " " " "
20.72	85	100 " " " "
18.57	90	150 " " " "

The meaning of these figures, from the point of view of the cultivators, is terrible. Suppose while prices fall 40 per cent (and the land revenue demand is correspondingly

reduced) the fall in costs of cultivation is only 20·72 per cent. After granting the remission the Government will take 100 per cent of net assets. If the fall in costs was less still, 18·57 per cent, the reduced land revenue demand would amount to 150 per cent of net assets.

### INELASTIC COSTS

Sir Sikandar Hayat, as Zamindar, has given unstinted praise to the change in the method of assessment. But, possibly, with the fall in prices, his costs of cultivation have fallen exactly in the same measure as, or even in a greater measure than prices. But Sir Sikandar Hayat might have remembered as Revenue Member what he forgot as a zamindar.. Some important elements of costs, e.g., water rates have fallen very little as compared with prices.

According to the *Abiana* Report, the water rate per acre fell from Rs. 4·48 in 1928-29 to 3·88 in 1930-31, or 13·4 per cent when the fall of prices amounted to about 50 per cent on an average.

In spite of the heavy fall of prices rates of interest charged by Mortgage banks and co-operative credit societies have remained unchanged; 12½ per cent is the usual rate charged by Mortgage banks, and 9½ to 12½ per cent are the most common rates charged by co-operative credit societies now as before.

The recent indebtedness legislation makes it difficult for mahajans to lend to the cultivator. Loans by mahajans will tend to decrease and the price of accommodation tend to rise rather than fall.

The cost of seed falls with prices, but when a cultivator has to borrow seed, he has to pay a higher price. In many cases, therefore, the cost of seed will fall in a proportion lower than prices.

It is not necessary that the price of bullocks should fall in the same proportion as the prices of agricultural produce.

As regards the cultivator's wages, it should not be forgotten that some items of his expenditure are comparatively inelastic, *i.e.*, payments to priests in connection with ceremonies. His main item of expenditure is cloth, and the price of cloth has fallen much less than that of raw cotton. The annual average index numbers for raw cotton and cotton manufactures in 1924 and 1934 are given below:

July 1914=100 (Calcutta Series).

	Raw Cotton.	Cotton manufactures.
1924	272	228
1934	73	115

The average price of cotton in 1934 was 27 per cent below and that of cotton manufactures 15 per cent above the pre-war level.

#### CONCLUSIONS REGARDING THE NEW SYSTEM

One is driven to the conclusion, and it is a conclusion from which there is no escape, that, as compared with the 40 or 50 per cent fall of prices, costs of cultivation have fallen to a much smaller extent (probably not more than 15 or 20 per cent).

If this is admitted—we may not quarrel about the exact extent to which costs have lagged behind prices in the downward movement—the remission of the land revenue according to prices alone is no revolutionary change from the point of view of the cultivator. The revolution in the method of assessment only means that the Government will be able to beat their remissions drum every year, while the great majority of cultivators will part with the whole of their net assets or more in payment of the land revenue—as they do now. The land revenue, at present, is a tax on the subsistence of the cultivator. It will retain that character under the new system.

It is remarkable that in formulating the principles of remission the Government should have forgotten costs of cultivation altogether. One would very much like to know why they have assumed that costs vary as prices when they know perfectly well that they don't. Are the Government prepared to reduce water rates in the same proportion in which prices fall? Have they ever done so?

When prices go up, the cultivator makes money. Why? Just because costs fail to rise to the same extent. If they did, the rise of prices would bring little profit. Costs are comparatively inelastic for a downward movement of prices in the same sense in which they are comparatively inelastic for an upward price movement. Hence the loss that the cultivator suffers when prices fall. A system of assessment which, in granting remissions, assumes perfect elasticity of costs must work against the cultivator.

The percentage of remission can be made as high as one pleases by pitching the standard rates high. The



percentage of remission is of little significance. What matters to the cultivator is not what the Government remits, but what the Government takes.

### THE RELATION OF COSTS TO GROSS INCOME

What is the proportion of gross income which is absorbed by costs of cultivation?

We have assumed the relation of 10:7. What are our reasons for assuming that costs form 70 per cent of gross income?

The following table shows the average gross income and expenditure per acre of holdings grouped in ten districts of the Punjab on the assumption that the whole land belonged to the cultivators.

#### AVERAGE PER ACRE (EXCLUDING RESALEWALA)

	Gross income.	Expenditure.	Proportion of expenditure to gross income per cent.
	Rs. as. p.	Rs. as. p.	
1927-28	.. 52 4 6	28 2 2	54
1928-29	.. 63 8 1	30 15 9	49
1929-30	.. 51 11 11	31 10 8	61
1930-31	.. 31 4 3	23 6 11	75
1931-32	.. 31 6 11	19 8 9	62
1932-33	.. 43 2 3	22 14 6	53
Average	.. ..	..	59

(Source: *Punjab Farm Accounts*, 1932-33, by Prof. Kartar Singh).

Taking the six years together, expenditure, on an average, represented 59 per cent of gross income.

But we have to make two adjustments. Expenditure in the *Farm Accounts* includes the land revenue, and it does not include the cultivator's wages.

The land revenue, on an average, may be taken as 8—10 per cent of the gross value of the produce. Wages would amount to 20—25 per cent of gross income at the lowest computation, which is less than the cost of feeding plough bullocks.

By wages we mean wages at a fair rate for the whole year and not merely for the days worked. The bullocks in the Canal colonies work for 3 or 4 months in the year, but they have to be fed for the whole year. The cultivator does not work for the whole year, but neither do Government servants, nor University or College professors. In any case the agricultural worker has a right to be treated no worse than bullocks.

Secondly, every member of the cultivator's family who assists in the work of cultivation is entitled to full wages. If 4 adult members of a cultivator's family, having no other occupation, work on a farm, and the rate of wages assumed is 5 annas daily, the daily cost of labour is Re. 1-4, and cost for the whole year Rs. 456-4.

Further, wages which enter into costs are something more than the bare subsistence of the worker. A human being is worth a little more than a bullock.

The proportion of costs to gross income varies from year to year. In a good year it falls; in a bad year costs may absorb the whole of the gross income. On an average of good, bad and indifferent years, costs (excluding the land revenue but including wages) may, on a

conservative estimate, be taken as 70 per cent of gross income.

### POSSIBILITY OF RISE OF PRICES

The scheduled or 'paper' prices, which will furnish the standard for granting remissions, are in no sense 'normal.' Present prices are more 'normal' than these prices.

It cannot be too clearly stated that the old prices are gone for ever. For example, the present price of wheat is about Rs. 2 per maund. It is extremely improbable that the price of wheat will rise to Rs. 3-12.

The price of wheat, or cotton, or other agricultural produce is determined, not by cost of cultivation in India, but in Western countries, and these costs have fallen heavily on account of progress, both biological and mechanical. The agricultural revolution is a fact, and it has come to stay.

Prices may rise if there is a general restriction of agricultural production all over the world. But any rise of prices would tend to stimulate production, and bring down prices again. It may also be pointed out that the restriction of agricultural production is not so easy to achieve as that of manufactured goods.<sup>2</sup> Agricultural

<sup>2</sup> Compensation is paid in the United States to farmers who grow less corn (35 cents for every bushel of corn that the land of a farmer could have grown and 15 dollars for every pig that will not be raised as a result of growing less corn). The grant of compensation for crop restriction in India is impossible—no compensation whatever is to be paid to jute farmers for jute restriction.

operations are not carried on within the four walls of a factory.

Prices may rise if an inflationary policy is pursued; the rise of prices under uncontrolled inflation is limitless. But inflation is not an unmixed blessing. Further, in most countries there is no inflationary tendency at the present time, in spite of heavy exchange depreciation. We seem to have taken to heart the lessons that the post-war period of inflation taught us. It is certainly possible for India to embark on a policy of inflation even when the more important countries are, on the whole, maintaining a stable price level, but the effect of such a policy on our balance of trade and exchange may be disastrous.

In the light of present facts it is impossible to be optimistic about the future course of agricultural prices. There is greater possibility of a slow downward movement (checked from time to time by efforts at production control) of agricultural prices as the result of continued progress in agricultural methods than of a rise.

The American industry is feeling the burden of the processing tax on cotton out of which compensation is paid to cotton farmers.

Where no compensation is paid, acreage curtailment will be most difficult to enforce.

Acreage curtailment in the United States, according to a Reuter's cable (published in the *Tribune* of April 26) "causes appalling distress among Southern tenant farmers because powerful landowners can evade the obligation to share restriction, making the entire onus fall upon tenants by evictions."

No country, in the absence of international agreements limiting exports, can successfully follow a policy of crop restriction. While the United States withdrew 10 million acres of cotton in 1934, other countries planted 4 million acres more. The effect of crop restriction by one country may be neutralised by other countries; the burden of crop restriction is borne by one country, and the profit largely reaped by others.

Our land revenue policy should recognize this all-important fact. Rates of land revenue should be worked out on the basis of normal prices. Paper prices are deceptive. We might as well base standard rates of the land revenue on 'paper' prices which are twice as high as the commutation prices in the Government schedule. The scale of remissions will be doubled, but will that benefit the cultivator?

#### REFORM OF THE LAND REVENUE

I wrote on this subject in 1929:

"When net income is the basis of the land revenue demand, the land revenue must be treated as a tax on agricultural income. The present position is anomalous because what operates as a tax on income is administered like a tax on things.

"The reform of the land revenue consists in abolishing the so-called tax on things and substituting in its place a graduated tax on agricultural incomes, with an exemption limit. The principle must be recognised in the case of agricultural as it is in that of non-agricultural incomes, that no burden shall be imposed where the ability to pay is *nil*, and that the sacrifice demanded from the tax-payer shall be in proportion to his real ability to bear tax-burdens."<sup>3</sup>

It will be admitted that the economic position of the revenue payer today is much worse than in 1929. Even if no case existed for a radical reform of the whole system of land-taxation in 1929, a very strong case exists today.

<sup>3</sup> *Indian Economic Life, Past and Present*, p. 568.

The comparative inelasticity of the land revenue is shown by the fact that in the worst year of the depression, 1930-31, the land revenue amounted to about 30 crores in the Provinces, as compared with about 33 crores in 1928-29. General prices fell from 145 in 1929 to 96 in 1931 (July 1914=100).

The main burden of Provincial expenditure rests on the land. The relief granted to revenue payers is negligible compared to the reduction in their income.

The only right way of reforming the land revenue system is its total abolition, and the subjecting of agricultural incomes to the income-tax. If this is found impracticable, (1) the land revenue must be reduced to 10 per cent of net assets and (2) the smallest holders must be granted complete exemption.)

In theory the land revenue is still one-quarter of net assets. It is difficult to understand how the peasant, in spite of his heavily reduced income, is considered able to pay the land revenue at the old rate. It is a recognised principle of taxation that where income falls, the rate of taxation must fall. A Minister, with an income of Rs. 60,000 a year, gives up only about 16 per cent of his income in the form of the income-tax (ignoring the sur-charges which will eventually be abolished). If a Minister's salary were reduced to Rs. 3,000 a month, his rate of income-tax will fall automatically. Surely it is not unreasonable to demand that when 'net assets', where they have not completely vanished, have fallen 50—75 per cent, the rate of taxation of net assets should be reduced?

As regards exemption from the land revenue, and the graduation of the tax, the Indian Taxation Enquiry Committee wrote in 1924-25:

“It has been seen that, since the land revenue is a tax in *rem* levied at a flat rate, it would be impossible either to graduate it or to give exemption to particular lands because of the circumstances of the persons who cultivate them.”<sup>4</sup>

Let the land revenue be a tax in *rem*, though it is levied as a certain proportion of net assets. The land tax in England is not a tax on economic rent,—it is a tax on things, but in 1896 those with an annual income of less than £160 were granted complete exemption. They pay neither the land tax nor the income-tax. In New Zealand small farmers whose holdings are worth less than a given amount (£500) enjoy exemption, and a graduated tax is levied on the larger estates. The principle of exempting farmers whose taxable capacity is considered insufficient is thus not unknown. It is technically not impossible to grant exemption in India. The exemption may be granted on the basis of the amount of land owned, the value of the land, or its estimated net income (allowing for wages) or net assets in the true sense. It is not impossible to discover the net assets of holdings of less than five acres. A low limit of exemption may be fixed in terms of net assets, say Rs. 200, or even Rs. 150. Is it not absurd to think that a farmer who earns a net profit of Rs. 150 in a year can bear to be taxed (and at the rate of 25 per cent of net assets) when a

non-agricultural income of Rs. 999 is exempt from the income-tax?

The term 'net assets' needs a clear definition. "The net assets," wrote the Taxation Enquiry Committee, "may include or exclude the subsistence of the cultivator"<sup>5</sup>—as if the inclusion or exclusion of the subsistence of the cultivator is a matter of no importance to the cultivator! Wages at a fair rate, and not merely the subsistence of the cultivator, must be definitely excluded from net assets, and in view of the uncertainty regarding existing practice, a statutory recognition of this principle is essential. The matter should not be left to the will of the Settlement Officer.

Sometimes rents paid by tenants-at-will are used as an index of economic rent. No more unreliable index of economic rent or net assets exists at the present time. Tenants in the Punjab pay rent out of their subsistence. If, as is actually the case, tenants, on an average of good, bad and indifferent years, pay over 80 per cent of the net income from cultivation (without making any deduction for their wages) as rent to landlords, retaining about 20 per cent as the reward for their own toil, rents paid by tenants much exceed "net assets."

Is it of much help to say today that Akbar used to take one-third of the gross value of the produce as land revenue, and that other Kings took even more? Conditions for the cultivator have changed materially for the worse during the past 3 or 4 hundred years. The population has increased



(as it was bound to) and consequently the amount of land per cultivator has decreased. It is possible that on account of the extension of the cultivated area, the average yield of land per acre is also now less than before. Further, in the old days, a far higher percentage of the population was supported by village industries and all kinds of hand-work than at present. When there is no lack of good land and agriculture is not the sole occupation of the people, any one may cultivate almost any amount of land that he cares to. The peasant may have enough to eat under such conditions, even if he has to part with one-third of the gross produce as the land tax.

India is indebted to Mr. W. H. Moreland for an extremely biassed account of Moghul administration. According to Mr. Moreland it was better to be a peon than a peasant under the Moghul kings in the 16th and 17th centuries. That may or may not be true, but it is literally true, today that in the Punjab, where the level of agricultural 'prosperity' is higher than in other parts of India, the meanest peon is better off than an average peasant owning less than 5 acres (58·3 per cent of the total number of owners), and much better off than a tenant cultivator (tenants cultivate about 60 per cent of the land in the Punjab). A peon earns about Rs. 200 in a year. The average net income per acre in 1932-33 according to the *Punjab Farm Accounts*, was Rs. 20·4, or a little more than Rs. 100 for 5 acres (Rs. 11·14 per acre in 1931-32 and Rs. 7·13 in 1930-31). Even in 1928-29, or before the collapse of prices, the average income per acre did not exceed Rs. 33. The tenant, it goes without saying, earns

much less than the peasant-proprietor. To a great many peasants in the Punjab today the earnings of a Government poor are untold wealth.

#### A HOPELESS SITUATION

Will the land revenue be reduced to 10 per cent of real net assets? No. Will small holders be granted exemption? No. The Government, in adopting the sliding scale system of assessment think they have gone to the extreme limit of generosity and beneficence. We have seen that under this system, on account of the comparative inelasticity of costs, Government would take a higher proportion of net assets than before. It is impossible to believe that Government do not know the true position. The real difficulty is the top-heaviness of the administration, and the inability of Government to reduce their scale of expenditure. There are no other important sources of provincial revenue, and the peasant must continue to bear his atrociously heavy burden of taxation until he breaks under the strain.

The meaning of this taxation in relation to the movement of the population is significant. Growing pressure of population on the soil, accompanied, as it is in India, by heavy taxation of agriculturists, does not increase their chances of survival in the struggle for existence. Underfed, over-taxed, and carrying a heavy load of debt, the cultivator cannot react to famine and disease except in the manner he does.

CHAPTER III

MOVEMENT OF THE POPULATION AND CIVIL  
CONDITION

“The actual increase since 1921,” writes the Census Commissioner for India 1931 (Dr. Hutton), “is 33,895,298, that is to say, 10·6 per cent on the population at the last census and 39 per cent on the population of India 50 years ago.”<sup>1</sup>

The population of India increased from 318·9 millions in 1921 to 352·8 millions in 1931, or by 10·6 per cent. But the real increase of numbers between 1881 and 1931 was 33 per cent, not 39 per cent. The real increase was less than the nominal increase, found by comparing the recorded population in 1881 with that in 1931, on account of two factors: (a) the additions of area and population included at each census, and (b) the progressive increase in the accuracy of enumeration from census to census. The population recorded at each census in India is given below; the figures for England and Wales have been added for the sake of comparison:

TABLE I  
RECORDED POPULATION IN MILLIONS

Year.	India.	England & Wales.
1872 ..	.. 206·2	22·7
1881 ..	.. 253·9	26·0
1891 ..	.. 287·3	29·0
1901 ..	.. 294·4	32·5
1911 ..	.. 315·2	36·1
1921 ..	.. 318·9	37·9
1931 ..	.. 352·8	39·9

<sup>1</sup> P. 5.

According to the recorded figures the growth of numbers in India between 1881 and 1931 was about 99 millions, and the percentage of growth 39; the growth of numbers between 1872 and 1931 was about 147 millions and the percentage of growth 71! But this is thoroughly absurd. We are concerned with the real, not nominal or apparent increase in numbers.

The following table shows the real increase of numbers since 1872:—

TABLE II

## REAL INCREASE OF MEMBERS

Period.	India. (Millions.)	Increase per cent.	England & Wales. (Millions.)	Increase per cent.
1872—81 ..	3.0	1.1	3.3	10.1
1881—91 ..	24.3	9.1	3.0	11.5
1891—1900..	4.1	1.4	3.5	12.1
1901—11 ..	18.7	6.3	3.6	11.1
1911—21 ..	3.7	1.2	1.8	5.0
1921—31 ..	33.9	10.6	2.0	5.3
Total 1872 to 1931 ..	87.7	..	17.2	..

The population recorded at the census of 1881 exceeded the figure for 1872 by no less than 48 millions. But of

this increase 33 millions was due to the inclusion of new areas, and 12 millions to improvement of method. Thus the real increase of numbers between 1872 and 1881 was only 3 millions. In the next decade the total increase was 33·5 millions, but the real increase was 24·3 millions. No allowance has to be made now for the inclusion of new areas or improvement of method, so that the whole of the recorded increase between 1921 and 1931 is real increase in numbers (33·9 millions).

#### IRREGULAR RATES OF INCREASE

Table II shows that the rate of increase in the different periods in India was very unequal. The figures show a period of comparatively rapid increase following one of an almost stationary population. The movement of population in England and Wales is in striking contrast to that in India. The population was increasing steadily at a rate higher than that of India till 1911. Then came a fall in the rate of increase in 1911-21, principally due to the war. The factor which explains the slower rate of increase in England and Wales, and Western Europe at the present time is fall in the birth rate.

When figures of real increase of numbers in India and England and Wales are plotted on a chart, India's curve has the shape of a W; that of England and Wales is very nearly a straight line dipping towards the end.

What is the explanation of this peculiar movement of our population?

The growth of population in India is determined not merely by the relation between normal birth and death rates, but by abnormal causes which affect this relation, as famine and disease.

The famine of 1876-78 falls in the first period. This famine severely affected southern India, particularly the Madras Presidency, while its effect was felt generally throughout the country. The severity of the famine in Madras may be judged from the fact that in five districts of the province where famine was intense, the population in 1881, as compared with 1871, decreased 25·12 per cent; in two districts, where it was moderate, the decrease in population was 3·62 per cent, while in Shimoga district, where it was slight, the percentage increase was 0·15.

The effect of a famine in checking the growth of numbers is not confined to the famine zone. The resulting high prices and scarcity check rapid reproduction in districts which have not been affected by famine. "It may safely be accepted," wrote the Census Commissioner for 1881, "that when food is scarce there are fewer births"—this may be due to prudence, deliberate or instinctive, or physiological causes. "It remains stamped on the age tables" goes on the Census Commissioner, "that in 1876-78 very much fewer children were begotten throughout the (Madras) Presidency than in previous or subsequent years, and this is true of the so-called non-famine districts, although to an obviously slighter extent than of the famine districts."\*

\* Census Report, 1881, p. 457.

The period 1881-1891 was one of recovery. It is generally seen that the birth rate rapidly increases after any period of exceptional mortality, due to war, diseases or famine. Famine mortality is high among the very old, the very young and those of a weak constitution. If then a period of famine is followed by a period of good crops, the population should increase rapidly as it contains an unusually high proportion of healthy persons at the reproductive ages. For example, the population of Madras and Mysore, both of which had suffered heavily in the famine of 1876-78, increased 15·7 and 18·1 per cent respectively in the decade 1881-1891, and after the famines of 1897 and 1900, the population of the Central Provinces and Berar increased 17·9 per cent in the decade 1901-11.

The real increase of population in the decade 1881-1891 was 9·1 per cent. This is the only decade between 1872 and 1921 which was free from any exceptional calamity.

Mr. Baines, the Census Commissioner for 1891, had prophesied that the rate of increase in the period 1881-91 was not likely to be maintained. After the good seasons of this decade he expected a check to the growth of population on account of famine. As it turned out, agricultural conditions in the decade 1891-1901 were adverse. There was scarcity over a considerable area in Madras and Bombay in 1891-92, and parts of Bihar were also affected. There were extensive crop failures in 1895 in the southern districts of the United Provinces, while in the following year famine conditions prevailed in the United Provinces, Central Provinces and Berar and parts of

Madras, Bombay, Bengal, the Punjab, Rajputana, Central India and Hyderabad. The area affected was 300,000 sq. miles with a population of nearly 70 millions. At the heels of this famine there followed the famine of 1899-1900 which was even more disastrous. It is estimated that the total mortality due to these two famines was about 5 millions.

This period also saw the appearance of plague in Bombay in 1896. The epidemic rapidly spread in the Bombay Presidency and in some other parts of India, and by the date of the Census had caused a mortality of nearly a million.

Plague and famine checked the rate of growth of population. As the Census Commissioner for 1901 remarks: "In a period which has witnessed two great famines of the century and the appearance of a new and deadly disease the wonder is not that the pace at which the population has grown is less than it was during the previous ten years, when the rate of progress was more rapid than usual, but that there should have been any increment at all."\*

The real increase of population in this period was 1.4 per cent.

Apart from famine, economic conditions of the decade were favourable to progress. The railway mileage open to traffic increased from 17,000 in 1890-91 to 25,000 in 1900-01; 43,000 miles of canals were in operation in 1901 as compared with only 9,000 ten years previously. There was also a steady development of various mining and

\* Census Report, 1901, p. 84.



manufacturing industries in the decade. The Census Commissioner regarded the outlook for the future as hopeful, unless famine again supervened. He did not think that India had already more inhabitants than it could support. There was considerable room for expansion. While in particular parts of the country (parts of Bihar and in the east of the United Provinces) the pressure on the soil was beginning to be felt, this was not true of the country as a whole. About two-thirds of the population of India occupied only a quarter of the whole area, and the remaining one-third of the population was scattered over three-quarters of the area which nowhere contained as many as 200 persons to the square mile. It was also seen that the greatest increase of population had occurred in districts which in 1891 had already a density of from 500 to 600 persons per square mile, and the smallest increase in districts which had a population of 100 to 200.

The next decade, 1901—11, was free from any serious widespread famine, though crop failures occurred over a wide area in 1907, extending from Bihar to the Punjab and Bombay, and famine conditions prevailed in the United Provinces and in a few districts elsewhere. This period has been characterised as one of "moderate agricultural prosperity" for the country as a whole.

The real increase of population in this decade was 6·3 per cent. It would have been greater but for disease. Malarial fever took a heavy toll of mortality in the irrigated tracts of Eastern and Central Punjab and the Ganges-Jamuna Doab in the United Provinces, where in 1908 alone the reported mortality from "fevers" was nearly two

millions. The Punjab, the United Provinces and Bombay suffered severely from plague; the total plague mortality was estimated to be 6·5 millions, of which over one-third occurred in the Punjab.

The outstanding feature of the decade 1911—1921 was the influenza epidemic. The war falls in this period, but its effect on the growth of numbers was negligible. The actual number of death casualties among the officers and ranks of Indian army units and labour corps was 58,233. The maximum number serving out of India in combatant and labour units at any one time between 1914 and 1919 was approximately Indian troops 250,000, labour corps 230,000, total 480,000; the number about the time of the census was troops 105,000, labour corps 20,800, total 125,800.

Economic conditions were favourable till 1917. The monsoon of 1918 was feeble, and that of 1919 was not much better. The outturn of the chief food crops declined heavily and prices rose. Influenza came at a time of widespread crop failures. It affected every part of India and "wiped out in a few months practically the whole natural increase in the population for the previous seven years."

The number of deaths due to influenza in the area under registration was about 7,100,000 in 1918 and  $1\frac{1}{2}$  millions in 1919, giving a total recorded mortality of  $8\frac{1}{2}$  millions. But the total influenza mortality was much greater than this, for on account of the complete breakdown of the reporting staff the registration of vital statistics was suspended in 1918, and when later the figures were reconstructed, there were many omissions, particularly as regards

women. The figure given above also does not take account of the mortality in areas where there was no registration, and thus neglects one-fourth of the total population. On the whole it was estimated by the census authorities that the total mortality from influenza was between 12 and 13 millions for India. The Actuarial Report on the Census of 1921 put influenza mortality at 22 millions or 7 per cent of the population. The following figures, though imperfect and incomplete, enable us to realise the severe effect of the epidemic on the growth of numbers:

Province.	Average yearly excess of births over deaths per mille, 1911—1917.	Average yearly excess of deaths over births per mille, 1918—1920.
Assam .. .. .	5.4	- 9.4
Bengal .. .. .	4.8	- 5.5
Bihar & Orissa .. .. .	9.1	- 9.1
Bombay .. .. .	4.7	-19.8
Burma .. .. .	8.5	- .1
C. P. & Berar .. .. .	11.8	-23.1
Madras .. .. .	8.5	- 3.1
N.-W. F. Province .. .. .	8.3	-11.1
Punjab .. .. .	12.5	- 5.0
United Provinces .. .. .	10.6	-17.8

The epidemic affected rural districts more severely than urban districts. In the Punjab the mortality in urban areas

was 36 per mille as against 51 per mille in rural areas. Mortality was under 5 per cent among Europeans, about 6 per cent among Indians of the higher classes who were able to obtain medical attendance, and over 50 per cent among the people in rural districts. The heavy mortality in rural areas was due to the lack of medical assistance and improper and inadequate provision of diet, clothing, etc., in illness.\*

The Punjab suffered severely from influenza but it still suffered less than the United Provinces and the Central Provinces. At the end of the decade, the population of the United Provinces was found to have decreased 3·1 per cent and of the Central Provinces 0·3 per cent as compared with 1911. On the whole the population of India increased by 1·2 per cent.

The last decade, 1921—31, was free from famine and epidemics and the increase of numbers in this decade constitutes a record (33·9 millions).

It is wrong to attribute this heavy increase to the beneficent activities of the Public Health Department. The utility of this Department is undisputed. But the effect of

\* "From the middle of October to the middle of November" says the Census Commissioner for the Punjab, "the state of the Province beggars description. Hospitals were choked, dead and dying lay by the sides of the roads, burial grounds and the burning ghats were strained beyond their capacity and corpses lay awaiting burial and cremation. Terror and confusion reigned supreme, the postal and telegraph services were disorganised, and a harassed and depleted medical service struggled valiantly, but ineffectually to cope with the disease. During this period large numbers of the educated classes earned the gratitude of the sufferers by devoted self-sacrifice and social service, while medical students throughout the province rendered every assistance within their power." Punjab Census Report, 1921, p. 60.

its activities on the movement of our population is so slight as to be negligible.

As we have seen, between 1872 and 1931 there are two decades of rapid growth, 1881—91 and 1921—31; each followed a period in which the population was practically stationary (increase 1·1 per cent in 1872—81 and 1·2 per cent in 1911—21). The explanation of the considerable growth of numbers in 1921—31 is the same as that for 1881—91; on account of the elimination of the weak and the unfit by disease (1911—21) or famine (1872—81), the population contained an unusually high proportion of vigorous persons at reproductive ages.

#### RATE OF INCREASE AS COMPARED WITH EUROPE

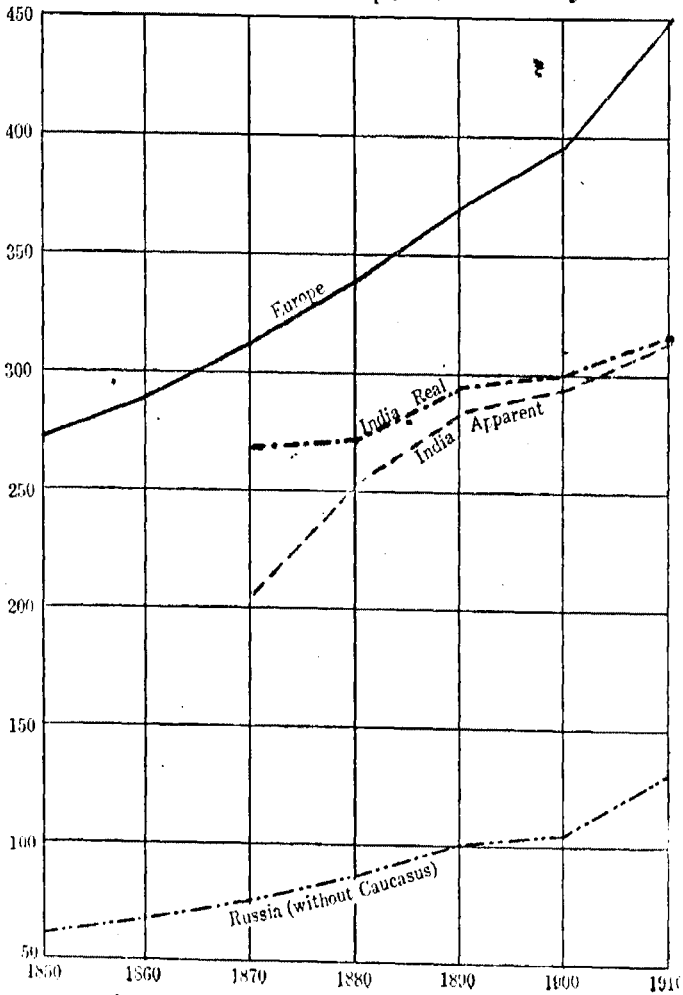
Writing on our population problem Dr. Hutton says:

“Attention has already been drawn to the grave increase in the population of this country. The actual figure of the increase alone is little under 34 millions, a figure approaching equality with that of the total population of France or Italy, and appreciably greater than that of such important European powers as Poland and Spain. The population now even exceeds the latest estimate of the population of China, so that India now heads the list of all the countries in the world in the number of her inhabitants. This increase, however, is from most points of view a cause for alarm rather than for satisfaction.”<sup>2</sup>

PLATE No. 2

Millions

Growth of Population



Everyone must agree with Dr. Hutton that the rapid increase of numbers in 1921—31 is a cause for alarm rather than satisfaction. As we have seen, the pressure on the soil has increased in almost all provinces, and there are no means of relieving it, except death. One is led to expect from the peculiar movement of our population in the past that epidemics will carry off millions of our people, enfeebled by want, in the coming years. This cannot be a cause for satisfaction to anyone.

But, considering the rate of increase since 1872, the population of India is not increasing rapidly. As compared with the leading European countries (France alone excepted), the rate of increase is slower in India.

How does the rate of growth of the population of India compare with that of other countries?

For European countries reliable statistics of population are available since 1800. It is well known that the population of Europe was increasing very slowly before the 19th century. The growth of the population was checked by epidemics and war. With the beginning of the 19th century the conditions completely changed and the population began to increase rapidly. It is estimated that the population of Europe grew from 187 millions in 1800 to 447 millions in 1910, an increase of 260 millions in 110 years, the rate of growth being 7·9 per cent per annum.

The rate of growth became particularly rapid about the middle of the 19th century. For example, the population of England and Wales increased from 9·2 millions at the beginning of the 19th century to 18 millions in 1850, 32·5 millions in 1900 and 36 millions in 1911. Ireland

shows a decrease, but this is due to special causes. But even the Irish population increased from 5·5 millions in 1800 to 8,295,000 in 1845, after which a steady decrease in numbers began, so that the population was reduced to 4,390,000 in 1911. Emigration wholly accounts for this decrease. The population of Germany increased from 24·5 millions in 1800 to 35 millions in 1850 and about 65 millions in 1910. The increase in Russia was still more remarkable—from about 38 millions in 1800 to 61 millions in 1850 and 131 millions in 1910. The figures for Russia are not absolutely reliable, but there is no doubt that the population of Russia has increased very rapidly since 1800.

It is interesting to note that at the beginning of the 19th century the population of France exceeded that of any European country with the exception of Russia. Even in 1846 France had a population of 34,546,975, as compared with Germany's 34,396,055. But four years later (in 1850) the German population exceeded the French slightly, and since then the difference has steadily increased. In 1910 Germany had a population of about 65 millions as compared with France's 39,192,000.

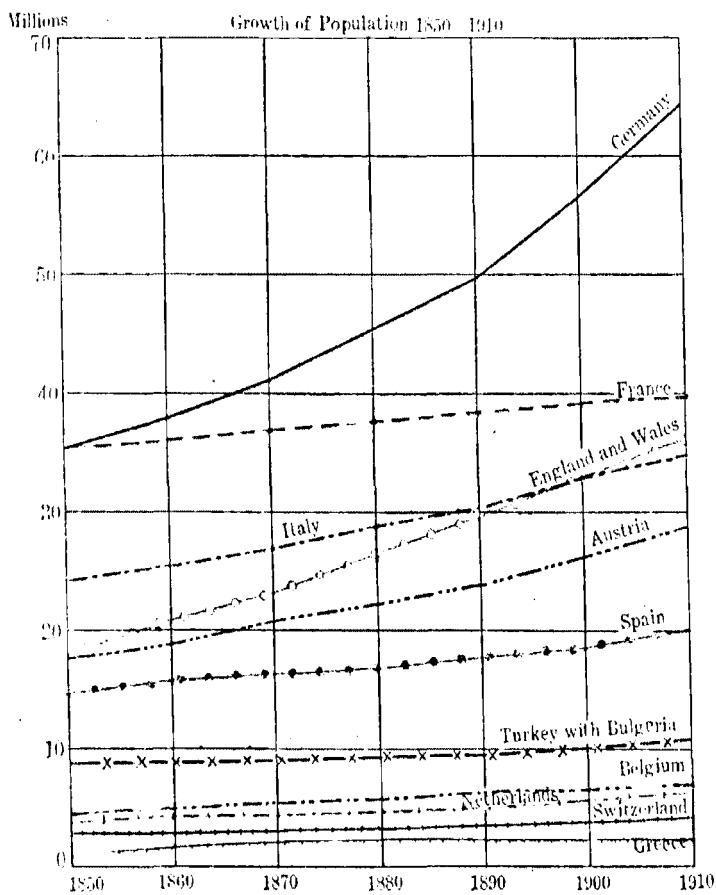
The growth of the population in belligerent countries was suddenly checked by the war (1914—18). The war also affected the growth of numbers in neutral countries.

The war affected the growth of population both directly and indirectly. Indirectly it caused a fall in the birth rate and in the number of marriages, and an increase in the death rate, apart from the direct losses due to war casualties.

The total decrease in numbers due to the decrease in births and increase in deaths among the civil and military



PLATE No. 3



population in the case of four leading belligerents is shown below<sup>3</sup>:—

	Decrease in births from May 1915 to July 1919.	Increase in deaths. 1914-18.	Total decrease.	Per 100 of the popula- tion of 1914.
Germany ..	3,590,000	2,160,000	5,750,000	8.5
France ..	1,390,000	1,540,000	2,930,000	7.4
Italy ..	1,200,000	1,240,000	2,540,000	7.0
Great Britain & Ireland	840,000	925,000	1,765,000	3.8
TOTAL ..	7,120,000	5,865,000	12,985,000	6.9

The total loss amounted to about 13 millions, or about 7 per cent of the total population of these four countries. Germany suffered most (8.5 per cent) and Great Britain and Ireland least (3.8 per cent).

In spite of the direct and indirect effects of the war in reducing numbers, the population of Germany (without including territory which Germany lost according to the terms of Peace) increased 3.5 per cent between 1910 and 1919, of Italy, between 1911 and 1921, by 7.5 per cent, and of Great Britain (without Ireland) by 4.7 per cent in the same period. In each of these cases the rate of growth was more rapid than that of the Indian population (1.2 per cent). The population of Belgium increased by 0.5 per cent, and of France decreased by 4.8 per cent between 1911—21.

<sup>3</sup> *Handwoerterbuch der Staatswissenschaften*, Vol. II.

The following table shows the growth of numbers in India and other countries between 1870 and 1930:—

TABLE

	(a). 1870. Millions.	(b) 31-12-1930. Millions.	Increase per cent.
India ..	265.1	352.8	33.0
Germany ..	40.9	64.5	57.7
Italy ..	26.7	41.0	53.5
Spain ..	16.3	23.6	44.7
France ..	36.8	40.0 (c)	8.7
Belgium ..	5.0	8.1	61.2
Netherlands ..	3.6	7.9	108.3
Denmark ..	1.8	3.6	100.0
England & Wales	22.7	39.9	75.7
Russia ..	106.4 (d)	161.0	51.3
Europe ..	307.7	505.7	64.3

Sources:—

(a) *Handwoeterbuch der Staatswissenschaften*, Vol. II.

(b) *Statistical Year-Book of the League of Nations* for 1931-32.

(c) The population of France in March 1931 was 41,134,923. Add to this the number of military and naval forces and crews of the commercial navy abroad—93,923, and deduct from the total 1,893,376, which is the population of the territory acquired by France according to the Treaty of Versailles.

(d) For Russia the earlier figure, that for the year 1827, is given in the *Statesman's Year-Book*, 1932.

It is seen that of all countries mentioned in the table the rate of growth was slowest in India, with the sole exception of France.

As compared with our 33 per cent increase, the population of England and Wales increased by about 76 per cent. Between 1897 and 1931, *i.e.*, in a period of 34 years, the population of Russia increased a little more than 51 per cent.

India may well be compared with Europe, for in many respects India is more like a continent than a country.

In 1931 Europe, including European Russia, had a population of about 506 millions, or 64·3 per cent greater than its population in 1870. In these 60 years the population of Europe increased at a rate about double that of India.

#### BIRTH AND DEATH RATES

When we compare birth and death rates in India with those in other countries it is found (1) that both are higher than in other countries, and (2) that while in other countries both birth and death rates show a tendency to fall, in India they show no such distinct tendency.

It has been often pointed out that the reported birth and death rates in India are not accurate. The difference between birth and death rates estimated by the actuary (Mr. Acland) at the census of 1911 and the reported rates amounted to 7 or 8 omissions per mile for births, and slightly less for deaths. In using the reported birth and death rates we have, therefore, to bear in mind that the actual birth and death rates are higher than the reported

rates. The records of births and deaths, however, though incomplete, are not useless. As was pointed out by the Census Commissioner for 1921, "Except for progressive improvement in urban areas and occasional breakdowns during epidemics, the errors are more or less constant from year to year,"\* and while not placing absolute reliance on the figures, we may use them for purposes of comparison.

In the decade 1921—30 the highest birth rate per 1,000 of the population in India was 36·9 (1928) and the lowest 31·85 (1922). Between 1885 and 1900 the highest and lowest birth rates were 42·16 (1899) and 31·54 (1892). The year 1899 shows an exceptionally high birth rate—a record for India. Ignoring this year the highest birth rate was 36·58 in 1900. The average birth rate in 1921—30 (34·35) was lower than the average for 1885—90 (35·83), and that for 1891—1900 (35·43). But it is difficult to speak of any tendency towards a lower birth rate in India such as the countries of Western Europe show.

The birth rate in Germany, France and the United Kingdom at the present time is below 20 per 1,000 of the population. In 1881—90 the birth rate in Germany was as high as 36·8, in France 23·9 and in England and Wales 32·5. In Europe the highest birth rate in 1930 was that of Rumania (35·0). The birth rate in Italy and Holland is higher than that in Germany, France or the United Kingdom, but it used to be much higher fifty years ago (Italy 37·7 and Netherland 34·2 in 1881—90).

\* Census of India, Vol. 1, Report, p. 15.

The fall in the birth rate in Western Europe is regarded with alarm, and, for military reasons, serious efforts are being made to encourage the growth of numbers. An interesting example of the methods employed to stimulate the declining birth rate is furnished by the following item of news which appeared in the *People* of February 12, 1935.

“Just before Christmas, Signor Mussolini presented 4,000 lire (about Rs. 1,000) to each of 94 mothers who since November 4, 1918, had given birth in all to 910 children still alive. The 94 mothers came respectively from the 94 provinces of Italy, and Signor Mussolini extolled them “as an example to all the mothers of Italy.’ In Rome the six most prolific mothers were each presented with a four-roomed flat.”

It would seem that the problem of the birth rate in India and Western Europe is very different. Here every one would welcome a check to “the devastating torrent of babies.” In Western Europe, where the torrent has become a ‘trickle,’ desperate but, on the whole, unsuccessful attempts are being made to restore the torrent again. It will not be uninteresting for us in India, where births are absolutely uncontrolled (except by Nature), to study the causes of the decline in the birth rate in Western Europe.

Various theories have been put forward to account for this phenomenon. They have been carefully analysed in a recent German publication.<sup>4</sup>

<sup>4</sup> *Die Ursachen des Geburtenrueckganges im europaischen Kulturkreis* by Dr. Roderich V. Uogern-Sternberg (Berlin, 1932).

1. Relations between the sexes have altered, and the common view of sexual morality has changed. Sexual gratification outside the bonds of marriage is not only regarded as moral but a bodily need. The prevention of pregnancy is no longer looked upon with disfavour; what is condemned is the bringing of children into the world whose chances of success and happiness in life are small. Woman decides how many children she will bear, and it is considered wrong to destroy her beauty and health through frequent child-births.<sup>5</sup>

2. The well-known German economist Brentano has sought the aid of Gossen's law of diminishing utility and substitution to explain the phenomenon. To people in a low stage of culture sexual pleasure is the only or the most important form of pleasure. Men and women who enjoy a high degree of prosperity and culture care also for other pleasures. "¶Man," says Brentano, "ceases to produce children when the increase in their number procures less satisfaction than other pleasures of life, which he would have to do without otherwise."<sup>6</sup>¶

3. The decline in the death rate increases the proportion of men of higher ages in the total population, which must tend to restrict the chances of promotion of younger men. The decline in the death rate thus indirectly prevents the number of marriages and the size of the family from increasing too rapidly.

<sup>5</sup> *Dr. Ungern-Sternberg, loc. cit., p. 43.*

<sup>6</sup> *Ibid., p. 51.*





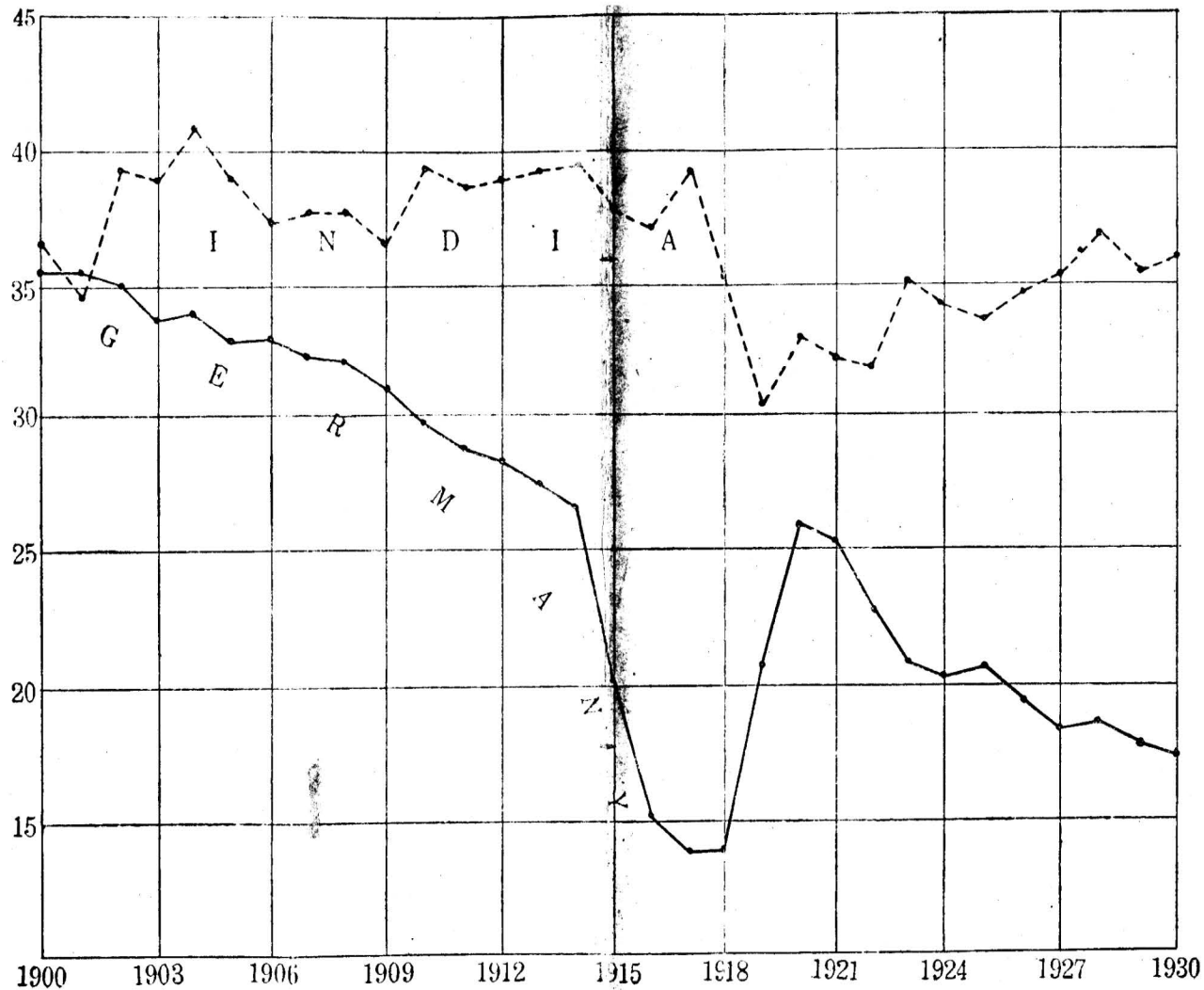


PLATE No. 4

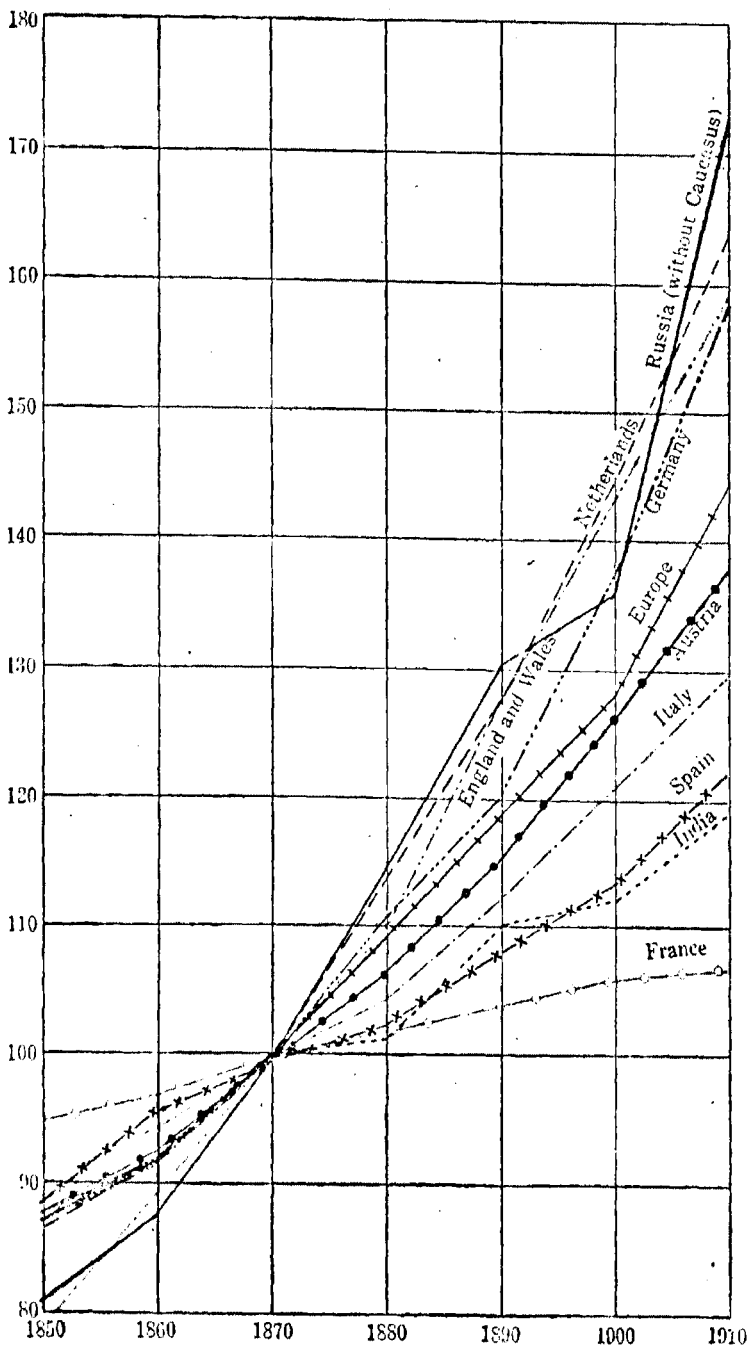
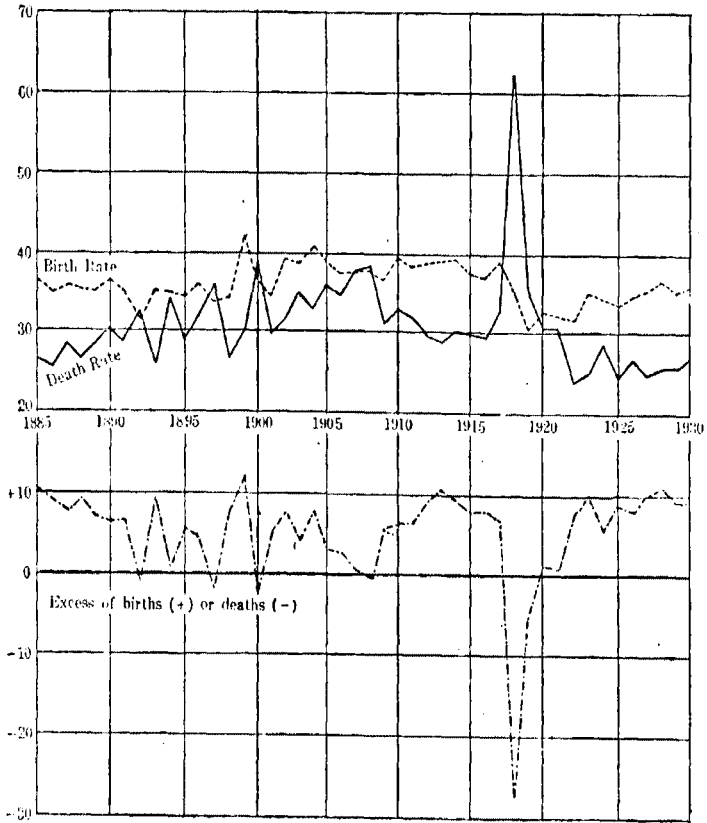


PLATE No. 5



4. The rate of infant mortality has gone down considerably in the progressive countries of Europe. Parents wanting two or three children do not bring more into the world, knowing that the children born will live.

5. Women claim equality with men in Europe, and their emancipation, to which the Great War gave an impetus, is an important cause of the decline in the birth rate. It is estimated that of the total number of females in Europe about 30 per cent earn their own living; this proportion is 65·70 per cent in the case of men.

The total number of females in India is 171 millions, of which 27·9 millions are shown in the Occupation tables under "Total earners' principal occupation"; thus 10·6 per cent of the females in India (ignoring working dependents) are earners. But it is difficult to say whether our figures are comparable with those for Europe. The proportion of independent women who earn their own living is probably less than 10·6 per cent of the total number of females. The principal occupation of women, as that of men, in India is agriculture.

Emancipation of women, both in the cultural and material sense, reduces the birth rate. A working woman of the proletariat has fewer children because she remembers her own sufferings as a member of a numerous family.

6. The Church condemns the voluntary limitation of births, but the influence of the Church is declining. The rising tide of materialism and atheism may not be a direct cause of the declining birth rate, but it does indicate, as Dr. Roderick V. Ungern-Sternberg contends, a change of

mentality. Generally in Europe clergymen have the largest families.

Among religious people, whether Hindu, Sikh, Muslim or Christian, the idea persists that life is from God, for which reason birth-control is sinful. The average Indian shares the conviction expressed by the poet in the following verses:

حس نے یہہ منہہ دیا ہے کہانے کو  
 دانت جس نے دیا جہانے کو  
 جس نے بخشا نگلنے کو ہے گلا  
 ہضم کرنے کو ہے دیا معدہ  
 کیا وہ کہانے کو کچھہ نہیں دیگا؟  
 کیوں نہیں دیگا بالیقین دیگا

The average Indian has never heard of the theory which explains the evolution of man (including his mouth, teeth and the digestive apparatus) without reference to a deliberate act of the Creator. In the same sense Maulana Rum has written:

اے زغم مردہ کہ دست از ناں تہی ست  
 چوں غفور ست و رحیم این ترس چیست

7. Use of contraceptives. This is known to all classes in Europe.<sup>7</sup> The popularisation and cheapening of contraceptives, which do not injure health nor affect sexual enjoyment, has furnished the means of universalising the voluntary limitation of births.

<sup>7</sup> Excepting those who object to birth control for particular reasons, uncontrolled births take place in Europe only in the case of idiots and drunkards. See *Aufgaben der Bevoelkerungspolitik* by Dr. Med. E. H. Stoll (Jena, 1927), p. 5.

8. It is well-known that the frequency of births decreases with prosperity. The ratio of children born in the poorest to those in the richest families is 3:1. The effect may be direct or physiological, or indirect: with the growth of culture and refinement, which prosperity brings, there is a growing desire to maintain a high standard of living.

9. Urbanisation in most cases is found to lower the birth rate, and this is one of the reasons why Signor Mussolini is an enemy of urbanisation. In 1929 the birth rate for the whole of Germany was 17·9 per thousand, and for Berlin only 10·0 per 1000. Dr. Ungern-Sternberg has very good reasons to complain of the *Gebaerleistung* of Berlin, or the achievements of Berlin in the matter of child-production. In the year 1926 Berlin's net achievement in this direction was *minus* 0·1 per thousand inhabitants (birth rate 10·0 and death rate 11·0 per 1000). Berlin stands lowest among the cities of the world, and Moscow leads with a birth rate of 29·8 per 1000 which exceeds the death rate (13·2) by 16·6 per 1000.

There is no appreciable difference between London's birth rate and the average birth rate for the whole of England and Wales. This is because the whole of the country is industrialised, and Neo-Malthusian habits and practices are widely spread among all classes.

Indian statistics are difficult to interpret. Among the provinces Delhi has the largest ratio of urban to rural population (5:3), but in defiance of the law which operates in Europe, Delhi has the highest birth rate. In 1930 the ratio of births per 1000 of the population was for Delhi

49.25, Assam 31.35, C. P. and Berar 47.74, Bihar and Orissa 36.2, Burma 28.87, Punjab 43.3, U. P. 37.31, Bengal 26.6, Bombay 37.41 and Madras 39.8.

The high birth rate for Delhi is irreconcilable with the census figure (based on the examination of 2,246 slips) of the average number of children born per family in this province—3.5. This average is highest for Travancore State, 6.5. Gwalior follows with 6.2, and next to Gwalior is Bengal with an average of 6.0 children. Bombay and Punjab are about equal with 4.0 and 3.9 children respectively.

Considered by religion or community, Christians and Primitive tribes ('Tribal') lead with an average of 5.0 children born per family. Parsis come next with 4.6 children; Hindus have 4.3, and Muslims and Sikhs 4.1 each.

Considered by occupation, those following the professions of law, medicine and instruction have the smallest number of children, 3.7 per family, while priests ('religion') have the largest, 5.2. But cultivating owners have more children (4.4) than agricultural labourers (4.3). In the matter of education, culture and refinement, however, there is little to choose between cultivating owners and agricultural labourers in India.

It may be doubted whether artificial checks operate to limit the size of the family to any very large extent even in the case of those who follow the professions of law, medicine and instruction. In the case of all classes the size of the family in India is determined chiefly, and in that of the rural population solely, by natural causes. Education is

Westernising men, but there is no Westernising of women as yet. The birth rate is uncontrolled in the towns in the same sense in which it is uncontrolled in the villages.

#### DEATH RATE

A high birth rate necessarily means a high death rate. We have seen that it is not possible to speak of any tendency towards a decline in our birth rate. No such tendency is exhibited by death rates either. But death rates in a decade depend upon the conditions of health. The death rates were lower in 1921-30 than in the preceding decade; but they will probably be higher in the decade 1931-40. In a country where the growth of numbers is controlled by disease it is impossible to speak of any definite trend in death rates.

A few examples of the fall in death rates in other countries are given below:—

			1881—90	1930
Germany	..	..	25.1	11.1
France	..	..	22.1	15.6
Italy ..	..	..	27.3	14.1
Holland	..	..	21.0	9.1

In India the death rate in towns is always higher than in rural districts, the difference amounting to 4.5 per 1000. But in the influenza epidemic of 1918 the death rate in rural districts exceeded that in towns: 62.93 per 1000 in rural districts and 56.76 per 1000 in towns.

According to class, Hindus and Muslims show the same death rates, but those for Christians are distinctly



lower. 'Fevers' claim the largest number of deaths, but the term is vague and covers all kinds of diseases.

Towns in the United Provinces have generally the highest death rates. Between 1921-30 the death rate in Benares ranged between 46·10 and 66·81 per 1000.

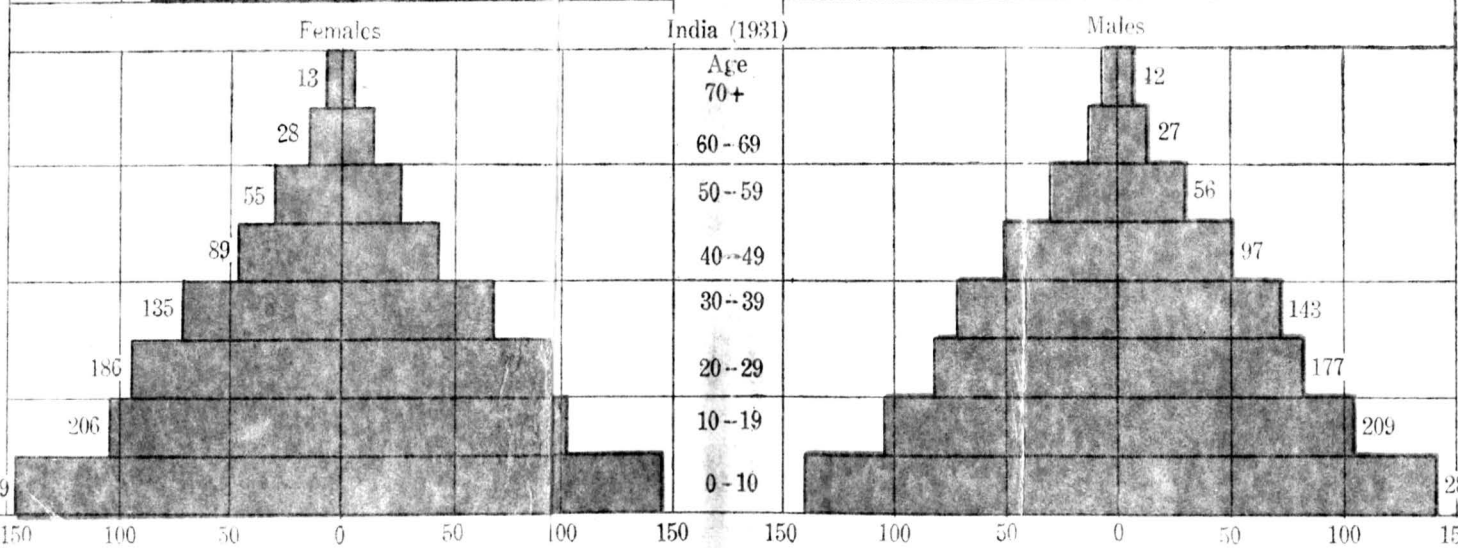
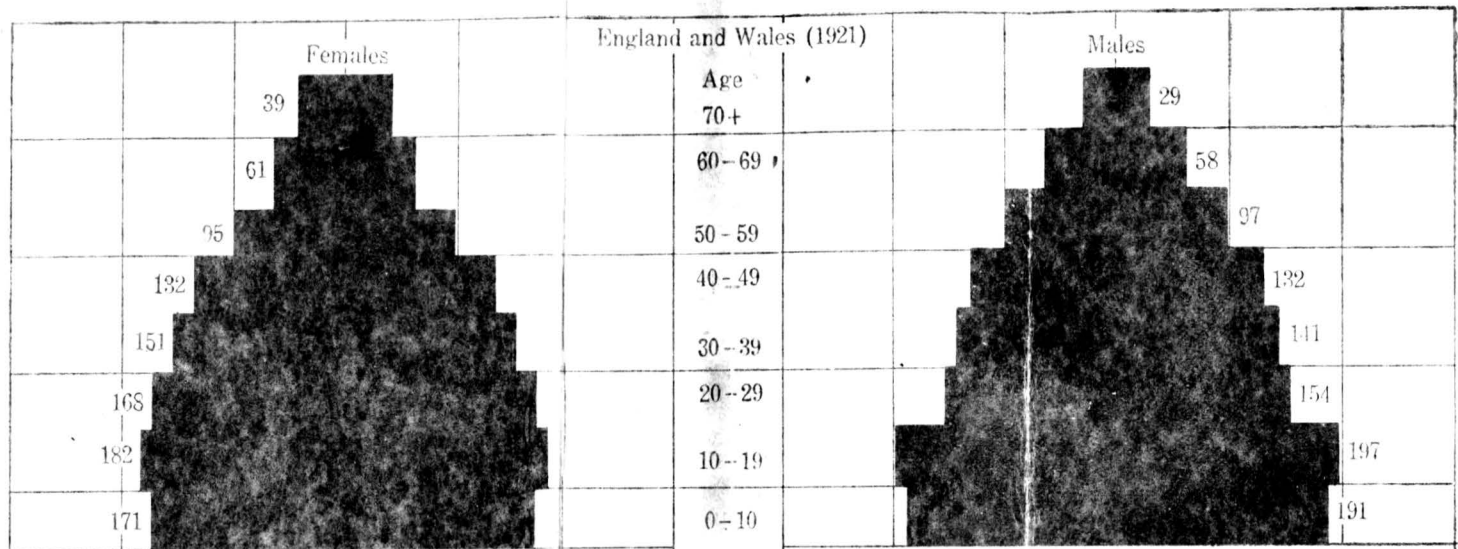
There is a striking contrast in death rates in cities and cantonments:—

Deaths per 1,000. 1930.		City.	Cantonment.
Hyderabad .. ..	.. ..	30·52	6·65
Lucknow .. ..	.. ..	47·11	18·33
Benares .. ..	.. ..	55·74	12·04
Fyzabad .. ..	.. ..	28·03	7·20

#### INFANT MORTALITY

Along with the general death rate, the rate of infant mortality has heavily fallen in most European countries during the past 50 years or more. The fall between 1871-75 and 1908 amounted to 21·5 per cent for France, over 34 per cent for Sweden, Denmark, and Netherlands, and 44 per cent for Switzerland. In 1871-75 infant mortality in Germany per 1000 children born living was 244—a little higher than our own average rate at the present time. The rate fell to 151 in 1913, 133 in 1921 and 85 in 1930. In 1930, among European countries, Switzerland and Holland had the lowest rate of infant mortality—51 per 1000. But Australia and New Zealand show still lower rates (41 and 31 respectively in 1931).

These rates are so low as to be almost incredible. The average for India is about one-fifth or 20 per cent,



which sometimes rises to over 55 per cent in cities like Bombay.

No marked fall in the infant mortality rate occurred in the decade 1921-30:

## AGE-DISTRIBUTION

TABLE I

AGE-GROUPS. (MALES)<sup>8</sup>

Ages.	Germany (1925)		France (1926)		India (1931)	
	No. (1000)	Per 1000 males.	No. (1000)	Per 1000 males.	No. (1000)	Per 1000 males.
0—10	6,007	192	2,996	155	50,231	278
10—19	6,420	213	3,281	170	37,613	209
20—29	5,533	183	3,282	170	31,781	176
30—39	3,992	132	2,540	132	25,765	143
40—49	3,713	123	2,507	129	15,149	84
50—59	2,915	96	2,205	114	9,284	52
60+	2,617	87	2,460	127	8,106	45
Total	30,197	..	19,309	..	177,929	..

Age-distribution in India is also in striking contrast to age-distribution in European countries.

Our age-pyramid has the broadest base, and the narrowest top. The broad base is due to the large proportion of children (0—5) in our proportion—147 males per 1000 males, as compared with 95 in France and 91 in Germany. In the highest age-group (60 +) we have 45 per 1000, as compared with Germany's 87 and France's 127.

<sup>8</sup> For Germany and France, see *Stat. Year-book of the League of Nations*, 1932-33.

Our age-pyramid is the most regular. In the case of France and Germany the numbers in the age-group 10—19 are greater than in the preceding group. The heavy drop in the second age-group in our case is due to the high rate of infant mortality.

Germany had 234 in the first age-group in 1910, as compared with 192 in 1925; and France 171 in 1911 as compared with 155 in 1926. The fall in each case is due to decline in the birth rate—fewer children are born and therefore the proportion of children to the total population has fallen.

Age-distribution of the population fluctuates from decade to decade. If both the birth rate and the death rate are declining, the proportion of the population in the first age-group will decline, and that in the higher, particularly the last age-group, rise. In Europe these changes are due to the deliberate action of man: voluntary limitation of births, improvement in conditions of public health and success in fighting disease which have increased the average duration of life. In India natural causes, or famines and epidemics, determine the changes in the age-distribution of the population. For example, per 10,000 of the population there were in 1881 1318 children (ages 0—5), 3010 adults (25—45), and 475 old men (60 and over). The proportion of children was below and of adults above the normal on account of the famine of 1876-78. In 1891 the proportion of children rose to 1409 and that of adults fell to 2969. The influenza epidemic of 1918-19 claimed a higher proportion of victims from the ranks of children and adults than old men, with the result that in 1921 there

were per 10,000 of the population 1202 children, 2947 adults and 507 old men. In 1931 the proportion of children increased to 1478 and that of adults and old men fell. The fall in the proportion of old men from 507 to 384 does not signify that somehow conditions of life have suddenly become adverse to them. It is largely due to the heavy increase in the proportion of children.

TABLE II

AGE-DISTRIBUTION OF 10,000 OF EACH SEX IN INDIA

	<i>MALES</i>					
	1881	1891	1901	1911	1921	1931
0—5 ..	1,318	1,409	1,254	1,327	1,202	1,478
25—45 ..	3,010	2,969	2,985	2,981	2,947	3,835
60 and over	475	462	466	485	507	384
	<i>FEMALES</i>					
0—5 ..	1,419	1,527	1,339	1,433	1,316	1,605
25—45 ..	2,978	2,931	2,955	2,931	2,904	2,724
60 and over	591	573	555	555	557	406

If we have a high proportion of children (0—5) at this time, then 10 years later there would be a higher proportion of boys of 10-15 in the population than at present. If no epidemics visited us in 1931-41, the proportion of children in our population in 1941 would be lower, and that of old men higher than in 1931.

## EXPECTATION OF LIFE

The expectation of life in India is much shorter than in other countries.

At birth the expectation of life in India in the case of a male child in 1901-10 was 22·59 years as compared with 43·97 years in Japan, 48·53 years in England and 45·84 years in Norway. The striking difference between the figure for India and those for other countries is due to our abnormal rate of infant mortality. But not only at birth but at all ages the expectation of all in India is less than in other civilized countries. The difference is not wholly accounted for by climate. The latest figures of the expectation of life are those for India for 1931 and England for 1921:

TABLE  
EXPECTATION OF LIFE, MALES

Age	All-India 1931	England 1921	Age	All-India 1931	England 1921
0	26·91	55·02	50	14·31	21·36
10	36·38	54·64	60	10·25	14·36
20	29·57	45·78	70	6·35	8·75
30	23·60	37·40	80	3·13	4·93
40	18·60	29·36	90	1·12	2·82

The expectation of life in India in 1931 for all ages up to 80 was higher than in 1911. This would be regarded as a matter for satisfaction if we did not know that owing

to the elimination of the weak and the unfit by the influenza epidemic of 1918-19 the population in the last decade contained an unusually high proportion of the fit and the strong. But the rapid growth of numbers in the last decade and the increase in the expectation of life are ephemeral phenomena, *i.e.*, the progress will not continue in the decade 1931-41. If, as there is much reason to fear, the growth of numbers is cut short in this decade by epidemics, the expectations of life for 1931-41 will be lower than those for 1921-31.

The increase in the leading European countries has been steady and continuous. For example, the expectation of life at birth for a male child in Germany was 35·58 years in 1871-72, 37·17 years in 1881-90, 40·56 years in 1891-1900 and 47·41 years in 1910-11. The rise in the expectation of life in England and Wales between 1871 and 1921 is shown by the following table:

TABLE  
EXPECTATION OF LIFE IN ENGLAND AND WALES

Age	Males		Females	
	1871	1921	1871	1921
0	40·4	55·5	43·5	59·5
5	49·8	53·8	51·9	61·7
25	35·4	41·6	37·5	44·5
45	22·3	25·3	24·1	27·8
65	10·5	11·4	11·2	9·12

(Source: *Statistical Abstract for the United Kingdom*, 1933)

A progressive increase in the expectation of life is a sign of improvement in the material conditions of well-being, and is, therefore, a reliable index of prosperity. Such tests of prosperity are inapplicable to India, and therefore we are accustomed to measure the increase in our prosperity by such standards as the growth of the stamp revenue or increase in litigation, and the growth of the excise revenue or increase in drunkenness.

### SEX RATIO

The deficiency of females at birth is a well-known phenomenon. In European countries the proportion of boys to girls is 104—106 boys to 100 girls. In India the ratio per cent of male to female births is about 103. In European countries, however, the death rate among females is much lower than among males, and consequently the proportion of females to males in the higher age-groups increases, and in the total population there is an excess of females over males. In India there is an excess of females over males (both in the case of Hindus and of Muslims) in the age-groups 0—5, 20—25, and 60 and over. In all other age-groups there is an excess of males over females. Taking all ages together there were, per 1000 males, 954 females in 1911, 946 in 1921 and 940 in 1931.

A deficiency of females exists in all provinces, except Bihar & Orissa and Madras. The Central Provinces and Berar used to have an excess of females, but in 1931, this province also (for the first time) showed a slight deficiency of females (998, actual population).



Among the larger provinces the deficiency is greatest in the Punjab:

				Proportion of females to 1000 males
1881	..	..	..	844
1891	..	..	..	850
1901	..	..	..	854
1911	..	..	..	817
1921	..	..	..	828
1931	..	..	..	831

For the natural population of the Punjab the proportion was 819 in 1921 and 824 in 1931.

It is seen that this proportion increased from 1881 to 1901, and fell from 1901 to 1921. A slight improvement took place in the decade 1921-31.

The greater deficiency of females in the Punjab is not explained by deficiency at birth. The ratio per cent of male to female births in the Punjab (about 112) is indeed higher than the average for the whole of India, but Ajmer-Merwara shows a higher ratio than the Punjab, and the N.-W.F.P. beats all records in this respect with an average ratio of 129 male births to 100 female births in the last decade.<sup>9</sup> And yet the deficiency of females in both Ajmer-Merwara and N.-W.F.P. is less than in the Punjab.

We get no explanation from the Census Commissioner, Punjab, (1931) of the fact, which he notes, that of the major Indian provinces the Punjab has the smallest pro-

<sup>9</sup> The proportion for N.-W. F. Province is absurdly high and unreliable. It is due to defective registration of female births. See Report for N.-W. F. P., 1931 Census, p. 79.

portion of females. He suggests that perhaps "the preponderance of males in the Punjab is due to its peculiar requirements"—the Punjab being "the gateway and sword-hand of India."<sup>10</sup> But the N.-W.F. Province is the gateway and sword-hand of India in a still superior sense. How exactly the peculiar requirements of the N.-W.F. Province affect the ratio of male to female births in that province is not known, but it is impossible to believe that fewer women as compared with N.-W.F. Province survive in relation to males in the Punjab on account of the political requirements of the Punjab.

The only possible explanation is that conditions of life are harder for women than for men in the Punjab, as also in other provinces where a deficiency of females exists.

The deficiency of females at birth is not a satisfactory explanation, for, as we have seen, such deficiency is a universal phenomenon. A higher death rate among boys, who are constitutionally more delicate than girls, equalizes the proportions of the two sexes in Europe by the time adolescence is reached and at the age of 4 or 5 in India. After that, in European countries, mortality among males remains relatively high on account of their harder life, which is more exposed to risk than that of females. It is otherwise in India, and particularly in the Punjab.

In the Punjab fewer females die up to the age of 5. Thereafter for all age-groups including 60 and over the ratio of female to male deaths is higher as shown by the

<sup>10</sup> Punjab Report, 1931, p. 159.

table given below. Figures for N.-W.F. Province are added for the sake of comparison:

## FEMALE DEATHS PER 1,000 MALE DEATHS

Age	Punjab <sup>11</sup>	N.W.F.P. <sup>12</sup>
0—1 .. ..	968	764
1—5 .. ..	980	896
5—10 .. ..	1,083	865
10—15 .. ..	1,250	890
15—20 .. ..	1,267	921
20—30 .. ..	1,154	1,072
30—40 .. ..	1,200	991
40—50 .. ..	1,045	873
50—60 .. ..	1,000	774
60 or over .. ..	1,082	724

That the Punjab should have a higher ratio of female to male deaths than the N.-W.F. Province is thoroughly disgraceful.

How can the sex ratio be improved? The political requirements of the province have nothing to do with the question. It is a question of taking proper care of female children, of raising the age of marriage, of avoiding too frequent births, of abandoning primitive methods of midwifery, of educating women and of treating widows better.

<sup>11</sup> Punjab Report, 1931, p. 156.

<sup>12</sup> N.-W. F. F. Report, 1931, p. 57.

## MARRIAGE

The Census returns relating to marriage for 1931 are extraordinary, and such as we might well be ashamed of. Taking all religions together the proportion of the married of ages under 15 per 1000 of each sex gradually declined from 1891 to 1921:—

## MARRIED PER 1,000 OF EACH SEX

	Males, Ages			Females, Ages		
	0—5	5—10	10—15	0—5	5—10	10—15
	1931	.. 16	79	149	30	193
1921	.. 6	32	116	11	83	382
1911	.. 7	37	129	14	105	430
1901	.. 7	36	134	13	102	423
1891	... 6	36	154	13	123	495

But the figures suddenly shot up in 1931. The combined numbers for age 0—15 are given below:—

## NUMBER OF MARRIED PER 1,000 OF THOSE AGED 0—15 YEARS

	Males.	Females.
1881	.. .. 63	187
1891	.. .. 59	170
1901	.. .. 59	162
1911	.. .. 54	156
1921	.. .. 51	144
1931	.. .. 77	181

PLATE No. 10

Widowed Married Unmarried

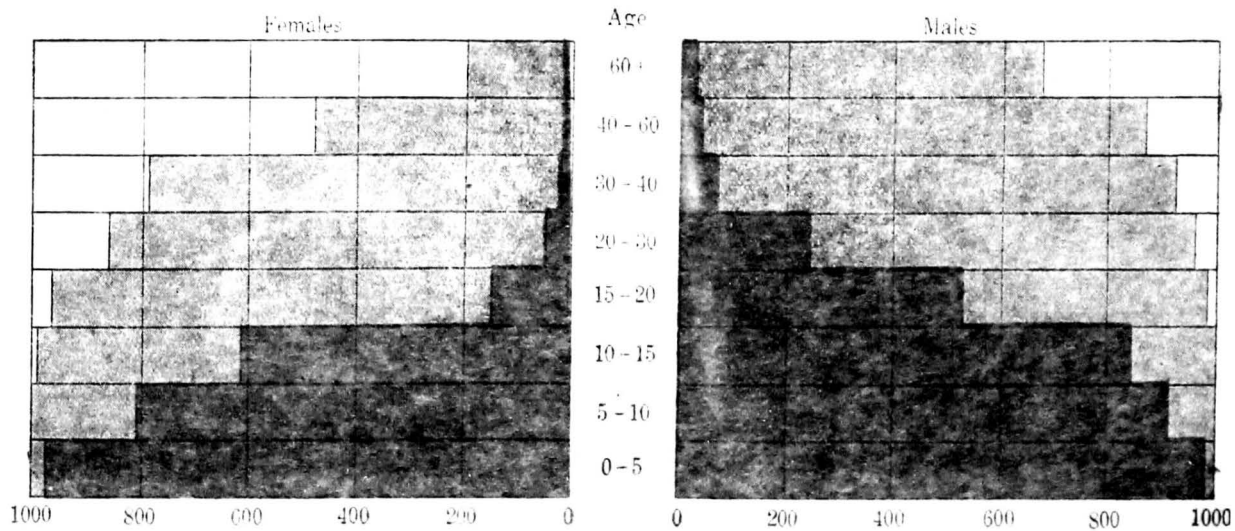
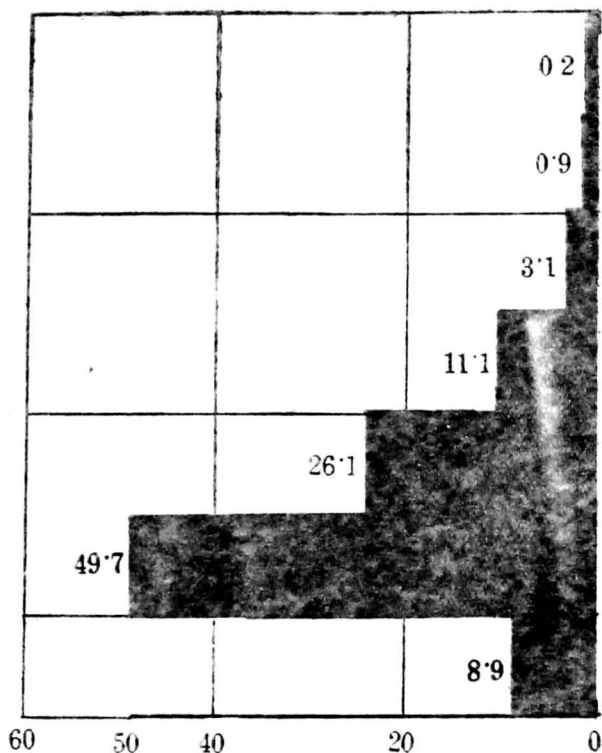


PLATE No. 11

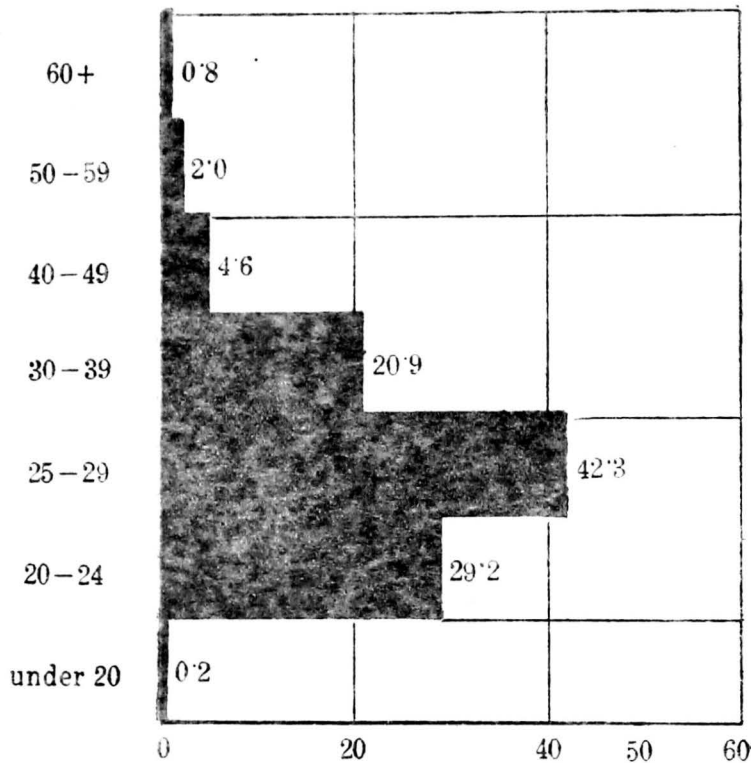
Women

Germany (1913)

Men



Per 100 marrying Women



Per 100 marrying Men

The Sarda Act came into force a year before the Census, and hence the rush to marry off children. The figures show the powerful hold of custom and religion on orthodox Hindus and Muslims—there was a parallel increase in the ratio of married children of both communities.

Dr. Hutton believes that at the Census there was an attempt to conceal the age of girls married below 15. He estimates the lowest ratio of females aged 0-15 who are married at 196 per 1000 instead of the census ratio of 181 per 1000. About one-fifth of the total number of females were married at an age below 15.

In most European countries the percentage of men who marry below the age of 20 is insignificant. The average age of first marriage in the case of males and females in various countries is shown below:—

	Year	Men. Age	Women. Age
Germany	.. 1913	27.5	24.7
France	.. 1906—10	23.0	23.7
Italy	.. 1911—14	27.2	23.6
Switzerland	.. 1901—10	23.3	25.3
England and Wales	1906—14	27.4	25.7
Scotland	.. 1906—14	27.8	25.8
Netherlands	.. 1906—15	27.6	25.3
Sweden	.. 1906—13	23.8	26.4

The highest proportion of men who marry (first marriage) in Europe are between the ages 25-29 and women between 20-24.

The proportion of widows to the population is much higher in India than in European countries. The privilege which Hindu widowers enjoy of remarrying, denied to widows, explains the high proportion of Hindu widows, aged 15-40, 124 per 1000, as compared with the figure for widowers—43. The corresponding figures for Bengal are widows 210, widowers 31, and for Muslims of India, widows 91 and widowers 36.

#### TOWNS AND VILLAGES

At the first general census of India in 1881 a town was defined as a "collection of habitations where the inhabitants exceed 5,000, but are less than 50,000"—habitations where more than 50,000 persons lived were classed as 'cities.' All places containing less than 5000 persons were treated as 'villages'.

90·9 per cent of the total population lived in villages and 9·1 per cent in towns as defined above. "Thus there are 10 villagers to every 1 townsman, the proportion in England being 1:2," wrote the Census Commissioner.

At the census of 1891 the definition of a town was extended so as to include many of the smaller municipalities and other areas which would have been classified as villages if the numerical standard of 5,000 had been strictly adhered to.



A uniform definition of a 'town' has been used since 1901. A town includes (1) every Municipality of whatever size, (2) all civil lines not included within municipal limits, (3) every cantonment, (4) every other continuous collection of houses, permanently inhabited by not less than 5000 persons, which the Provincial Superintendent may decide to treat as a town for census purposes. ,

Overgrown villages, even possessing a population of more than 5000, are not classed as towns. To be treated as a town a place with a population of more than 5000 must possess urban characteristics. In making their decision, the Census Superintendents are instructed to take into consideration "the character of the population, the relative density of the dwellings, importance in trade and historic associations."<sup>13</sup>

Towns of not less than 100,000 inhabitants are treated as 'cities.'

Between 1911 and 1921 the population of towns of above 50,000 increased 16 per cent, of towns of 20,000 to 50,000, 7.6 per cent, while that of towns of 10,000 to 20,000 increased by only 0.7 per cent. The growth of the larger towns was thus at the expense of the medium-sized towns. In Western India, which is industrially more advanced than any other part of India, the types of places which lost to the cities were "not the smaller villages but the middle-sized country towns."<sup>14</sup>

<sup>13</sup> Census Report, India, 1931, p. 45.

<sup>14</sup> Census Report, India, 1921, p. 66.

## RURAL AND URBAN POPULATION, 1901—1931, FIGURES IN 1,000

	1901	1911	1921	1931
Class I. 100,000 & over	6,635	7,076	8,212	9,674
Class II. 50,000—100,000	2,931	3,010	3,518	4,572
Class III. 20,000—50,000	5,474	5,546	5,969	8,091
Class IV. 10,000—20,000	5,975	6,164	6,221	7,449
Class V. 5,000—10,000	5,993	5,945	6,223	6,993
Class VI. Under 5,000 ..	2,176	2,008	2,333	2,206
Total Town population ..	29,184	29,748	32,475	38,985
Rural Areas .. ..	265,117	285,408	286,467	313,852

## NUMBER OF TOWNS AND VILLAGES

Towns	1901	1911	1921	1931
Class I ..	31	30	35	38
Class II ..	52	45	54	65
Class III ..	167	181	200	263
Class IV ..	471	442	451	543
Class V ..	857	848	885	987
Class VI ..	570	607	691	674
TOTAL ..	<u>2,148</u>	<u>2,153</u>	<u>2,316</u>	<u>2,575</u>
(Villages) ..	728,605	720,342	685,665	696,831

Between 1921 and 1931 the population of towns of 20,000—50,000 increased most rapidly. Their population is now about double that of towns of 50,000 to 100,000,

and is only a little less than the total population of 38 cities. The number of towns was increased in 1931 by the treatment of cantonments as separate entities; formerly they were included in the adjoining towns.

Between 1901 and 1931 the town population increased by 34 per cent and the village population by 19 per cent. In spite of the larger percentage growth of the town population, due to the growth of trade and industry, it is not possible to speak of any urbanisation in India. 11 per cent of the total population lived in towns in 1931, an increase of 0·8 per cent as compared with 1921, and 1·5 per cent as compared with 1891.

URBAN AND RURAL POPULATION: PER CENT OF TOTAL

			Urban	Rural
1891	..	..	9·5	90·5
1901	..	..	9·9	90·1
1911	..	..	9·4	90·6
1921	..	..	10·2	89·8
1931	..	..	11·0	89·0

The fall in the proportion of the urban population in 1911 is explained by plague, from which towns suffered more than rural areas. At the time of the census of 1911 the epidemic was raging in several provinces and a large number of the regular inhabitants of many towns had gone away.

The growth of towns is dependent upon the growth of industries. In view of the very slow development of Indian manufacturing industries it is not surprising that the progress of urbanisation in India is slow. This progress has been very rapid in European countries, such as Germany, which is explained by their rapid industrialisation. In 1800 about 90 per cent of the population of Germany lived in places with less than 5,000 inhabitants, and only 10 per cent in towns. The growth of the town population, particularly the population of cities, became rapid after 1850 and the pace increased after 1870. In 1850 there were in Germany only 5 towns with more than 100,000 inhabitants, 8 in 1870, and 48 in 1910. Between 1871 and 1910 the town population of Germany increased from 14·8 millions (36·1 per cent of the total population) to about 39 millions (60·0 per cent) and the rural population decreased from 26·2 millions (63·9 per cent) to 25·95 millions (40·0 per cent).

The growth of the larger towns in Germany has not been, as in India, at the expense of the medium-sized towns, but chiefly at the expense of the villages. Between 1871 and 1910 the percentage of the population living in country towns decreased from 12·4 to 11·24 and that of rural territory (places with less than 2,000 inhabitants), decreased from 63·9 to 39·98 per cent while the percentage of the population living in large towns (over 100,000) increased from 4·8 to 21·28 per cent.

In Austria 91 per cent of the population in 1843 lived in places with less than 5,000 inhabitants, and 9 per cent in towns of over 5,000. In 1910 the proportions were

72·8 and 27·2. Between 1851 and 1911 the town population of France increased from 25·5 per cent of the total population to 44·2 per cent. The percentage of the population living in towns (more than 8,000 inhabitants) in the United States of America increased from 3·35 in 1790 to 29·20 in 1890. Taking a town to be a place with more than 2,500 inhabitants, the percentage of the population of the United States living in towns increased from 40·5 per cent in 1900 to 46·3 per cent in 1910. 9·2 per cent of the total population of the United States in 1910 lived in towns of more than 1,000,000 and 22·1 per cent in towns of more than 100,000 (Germany 21·28).

### HOUSING

The housing conditions in some of our cities are far from satisfactory. They are terrible in Bombay, the centre of the textile industry. "At least 36 per cent of the population of the city," says Dr. Hutton, "suffer from gross over-crowding."<sup>15</sup>

About 8 lakhs of persons or 74 per cent of Bombay's population live in one-roomed tenements. Of these 2½ lakhs live in rooms occupied by 6—9 persons each, 80,133 in rooms of 10—19 persons each and 15,490 in rooms occupied by 20 or more persons to each room.

The average density of a London County Borough is 37,568 persons to the square mile; the maximum density is in Southwark—97,088 to the square mile. Bombay's density is 48,000, of Delhi City (Municipality) 58,273, and of Sikandarabad (U.P.) 63,552 per square mile. These

<sup>15</sup> Report, 1931, p. 52.

average densities convey little idea of the congestion in certain parts of our towns. Three wards of Peshawar have densities of 121,600, 131,840 and 188,800 per sq. mile respectively; 177,000 persons live in the old walled city of Lahore at a density of 198,500 persons per square mile!

In view of such congestion, and the dirt, filth and squalor in our towns, it is not surprising that epidemics, when they appear, spread very rapidly, and are so difficult to cope with.

### LITERACY

How do we stand in the matter of illiteracy as compared with other countries? We lead the world.

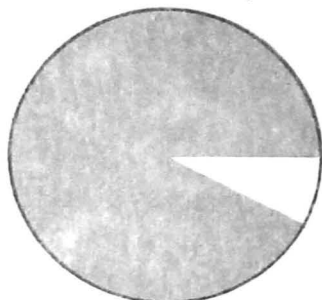
#### TABLE

ILLITERACY ACCORDING TO CENSUS RETURNS. ALL AGES 10 AND OVER

	<i>Per cent of total</i>			
	Year	Males Per cent	Females Per cent	Persons Per cent
AFRICA—				
Egypt	.. 1927	76.9	95.3	85.7
AMERICA—				
Canada	... 1921	5.7	4.4	5.1
U. S. A.	.. 1920	6.0	5.9	6.0
Mexico	.. ..	61.7	67.6	64.9
ASIA—				
India ..	.. 1921	83.9	97.7	90.6
U. S. S. R.	.. 1926	33.1	62.9	48.7

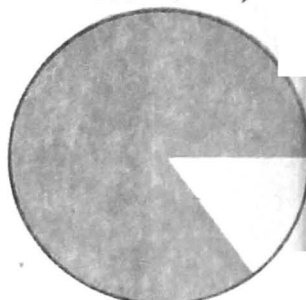
PLATE No. 12.

India (1931)



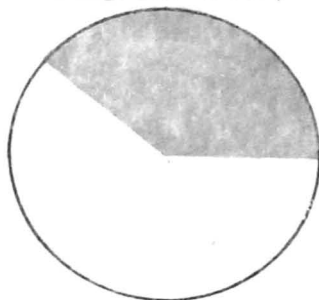
90.7

Egypt (1927)



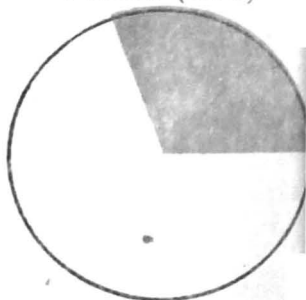
85.7

Bulgaria (1926)



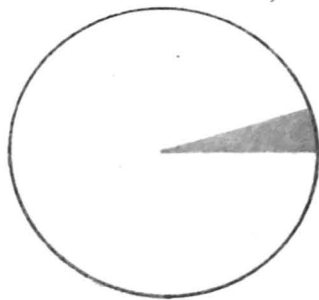
39.7

Poland (1921)



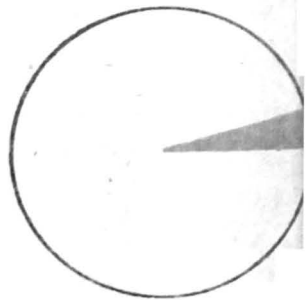
32.7

U. S. A. (1920)



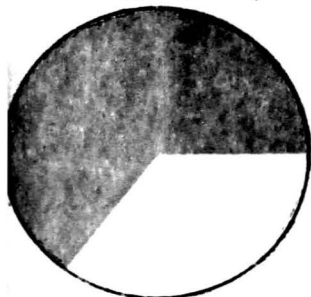
6.0

France (1926)



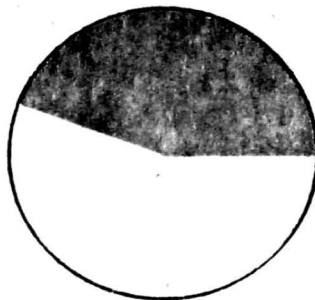
5.9

Portugal (1920)



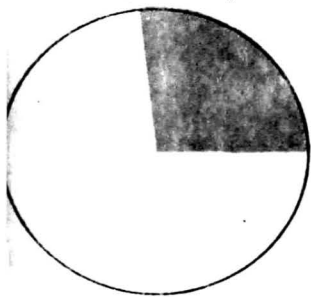
65.2

Greece (1923)



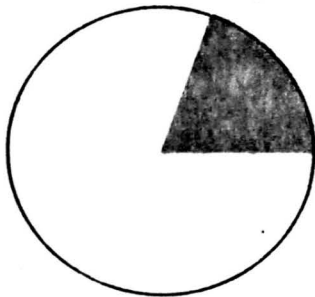
43.3

Italy (1921)



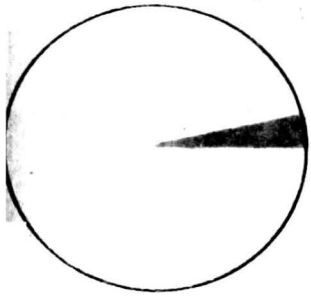
26.8

Latavia (1930)



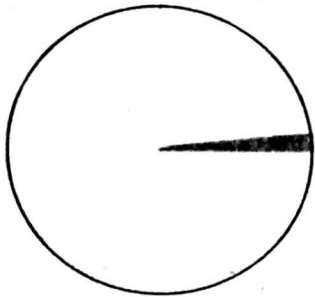
18.8

Canada (1921)



5.1

Australia (1921)



1.7



## EUROPE—

Belgium	..	1920	6.6	8.4	7.5
Bulgaria	..	1926	25.3	53.9	39.7
Spain	..	1920	35.0	50.2	43.0
Estonia	..	1922	7.2	14.0	10.8
France	..	1926	5.1	6.7	5.9
Greece	..	1923	25.4	60.5	43.3
Hungary	..	1920	10.3	15.3	13.0
Italy ..	..	1921	23.3	30.0	26.8
Latavia	..	1930	12.2	24.3	18.8
Lithuania	..	1930	30.7	34.4	32.7
Poland	..	1921	29.4	35.7	32.7
Portugal	..	1920	56.8	72.8	65.2

## OCEANIA—

Australia	..	1921	2.1	1.2	1.7
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In 1921 with 83.9 per cent of illiterate males and 97.7 per cent of illiterate females we led the world. The position did not change in 1931. The proportions for India for 1931 are 82.6 per cent illiterate males (of all ages 10 and over) and 96.9 per cent of females of the same ages. The following table shows the number of literates of ages 5 and over.

		India. Millions	Provinces. Millions
TOTAL POPULATION	..	296.3	230.0
Males	..	153.8	119.4
Females	..	142.5	110.6
LITERATES	..	28.1 (9.5%)	22.7 (9.9%)
Males	..	23.9	19.5
Females	..	4.2	3.2
LITERATES	..	3.7 (1.3%)	3.1 (1.4%)
Males	..	3.3	2.8
Females	..	0.4	0.3

TABLE I  
VITAL STATISTICS. BRITISH INDIA

	Ratio of births per 1000 of po- pulation	Ratio of deaths per 1000 of population	Ratio per cent of male to fe- male births.	Ratio per cent of male to fe- male deaths
1921	32.20	30.59	108.05	110.99
1922	31.85	24.02	109.09	112.27
1923	35.06	25.00	108.00	109.98
1924	34.44	28.49	108.1	109.99
1925	33.65	24.72	108.1	111.05
1926	34.77	26.76	107.7	109.40
1927	35.27	24.89	107.9	109.59
1928	36.79	25.59	108.0	108.45
1929	35.47	25.95	107.9	108.08
1930	35.99	26.85	107.9	108.64

TABLE II  
INFANT MORTALITY PER 100 BIRTHS

			Males	Females
1921	..	..	20.5	19.0
1922	..	..	18.3	16.6
1923	..	..	18.3	16.8
1924	..	..	19.7	18.0
1925	..	..	18.1	16.7
1926	..	..	19.7	18.0
1927	..	..	17.4	15.9
1928	..	..	18.1	16.4
1929	..	..	18.5	16.9
1930	..	..	18.9	17.2

TABLE III  
RATIO OF DEATHS PER 1,000 OF THE POPULATION

	In towns	In rural districts	According to class.		
			Christians	Hindus	Mohammadans
1918	56.76	62.98	37.55	64.61	56.12
1921	33.33	30.32	16.61	30.87	29.54
1922	27.41	23.00	16.09	24.08	23.22
1923	29.27	24.58	18.84	24.63	25.80
1924	31.66	28.18	20.89	28.00	30.35
1925	29.21	24.27	18.64	24.72	24.99
1926	32.52	26.19	21.29	26.92	26.29
1927	29.05	24.48	19.89	24.96	24.61
1928	30.08	25.15	20.83	25.77	24.79
1929	31.42	25.41	20.63	25.96	25.57
1930	30.11	26.52	20.79	27.67	25.13

(Source: *Statistical Abstract for British India. Vital Statistics.*)

TABLE IV  
BIRTH AND DEATH RATIO IN DIFFERENT COUNTRIES.  
PER 1,000 OF THE POPULATION OF 1930.

	Birth rate	Death rate	Annual rate of excess of births	Annual marriage rate	Deaths un-der 1 Yr. per 1000 living births.
Egypt	.. 45.7	25.0	20.7	..	151
U. S. A.	.. 18.9	11.3	7.6	9.1	65
British India	.. 32.9	24.5	8.4	..	180
Japan	.. 32.4	18.2	14.2	7.9	124
Germany	.. 17.5	11.1	6.4	8.7	85
France	.. 18.0	15.6	2.4	8.2	78
Italy	.. 26.7	14.1	12.6	7.4	106
Holland	.. 23.1	9.1*	14.0	8.0	51*
United Kingdom	16.8	11.7	5.1	7.8	63
Roumania	.. 35.0†	19.4†	15.6	9.3	176†
Sweden	.. 15.4*	11.7	3.7	7.1	55

\* Lowest in Europe.

† Highest in Europe.

‡ Highest in Europe, excluding Malta (297 per 1000).

TABLE V  
 SIZE OF FAMILY BY OCCUPATION OF HUSBAND.  
 ALL-INDIA

			Average number of children born per family
Total of all classes	..	..	4.3
Cultivating owners	..	..	4.4
Agricultural labourers	..	..	4.3
Industry	..	..	4.2
Public Administration	..	..	3.9
Professions and Liberal Arts		..	4.3
Religion	..	..	5.2
Law, medicine and instruction		..	3.7

TABLE VI  
 SIZE OF FAMILY BY COMMUNITY OR RELIGION OF FAMILY

			Average number of children born per family
Total	..	..	4.2
Hindu	..	..	4.3
Sikh	..	..	4.1
Jain	..	..	4.2
Buddhist	..	..	3.8
Parsi	..	..	4.6
Muslim	..	..	4.1
Christian	..	..	4.0
Tribal	..	..	5.0

TABLE VII  
SIZE OF FAMILY BY PROVINCES AND STATES\*

	Average number of children born per family		
Total .. ..	..	..	4.2
Baroda State .. ..	..	..	5.7
Bengal .. ..	..	..	6.0
Bombay .. ..	..	..	4.0
C. I. Agency .. ..	..	..	3.5
C. P. & Berar .. ..	..	..	4.0
Cochin State .. ..	..	..	3.8
Gwalior State .. ..	..	..	6.2
Jammu & Kashmir State .. ..	..	..	5.7
Mysore State .. ..	..	..	4.4
Punjab .. ..	..	..	3.9
Delhi .. ..	..	..	3.5
Travancore State .. ..	..	..	6.5

TABLE VIII  
POPULATION OF CAPITAL TOWNS IN 1,000

	1931	1901	1872
Calcutta ..	1,193	848	633
Patna ..	160	135	159
Bombay ..	1,161	776	644
Madras ..	646	509	398
Rangoon ..	399	235	99
Allahabad ..	174	172	144
Delhi ..	447	209	154
Lahore ..	400	203	125
Nagpur ..	215	128	84
Peshawar ..	87	95†	77†
Agra ..	205	188	149

\* No information is available about the United Provinces, Madras and N. W. F. Province. The source of these statistics is Fertility Tables given as Appendix I to Census of India, 1931, Vol. I, Part II (Tables).

† Includes cantonment.

*London (administrative country), (1931)	..	4,396,000
Paris (1911)	.. ..	2,888,000
Berlin (1919)	.. ..	3,804,000
Vienna (1920)	.. ..	1,842,000
Brussels (1919)	.. ..	831,000
Rome (1915)	.. ..	591,000
Moscow (1931)	.. ..	3,663,000
†New York City (1920)	.. ..	5,621,000

\* London with suburbs has a population of approximately 8,000,000.

† With suburbs, the fort, the Port and Canals.

## RURAL RECONSTRUCTION

The heavy fall in agricultural prices and the acute distress that it has caused among the agricultural classes have turned the attention of both the people and the Government to rural reconstruction and the revival of cottage industries as a subsidiary source of income to the village people.

Mahatma Gandhi initiated the movement by founding his Village Industries Association in 1934. The headquarters of this Association are at Wardha; branches are to be opened in all provinces. A Board of Administration has been formed under the Village Industries Association, which has been entrusted with important functions: of co-ordinating the policy followed in different centres, of collecting information about the existing condition of village industries and the economic and physical condition of villagers, of carrying on research work (left undefined) with the help of specialists and experts, and of discovering and creating markets for surplus village manufactures. The Board will be assisted by workers or agents who "consistently with their pre-occupation of earning their livelihood," will give their whole time to the work of the Association. Finally, a Board of Advisers has been constituted which includes, among others, Dr. Tagore, Sir J. C. Bose, Sir P. C. Ray, and Sir C. V. Raman. The object of the Village Industries Association is to promote the economic

welfare of village people, to make them 'self-reliant and self-supporting.'

The Village Industries Association has nothing to do with politics.

Probably taking their inspiration from Mahatma Gandhi the Government of India have provided 113 lakhs in the budget for 1935-36 for rural reconstruction. Out of this sum 10—15 lakhs will be required to place the co-operative movement on sound financial foundations; the rest of the grant will be available for the economic development and improvement of rural areas. Preference is to be given to schemes which can be quickly put into operation, but the money need not all be spent during the year 1935-36. The grant for rural reconstruction may become an annual affair.

The Punjab Government has provided a lakh for the same purpose. The Finance Member of the Punjab thus referred to this subject in the course of his budget speech in 1935:

“An item of particular interest connected with next year's expenditure is the continuance of the appointment of the Commissioner of Rural Reconstruction for another year and the provision of one lakh for schemes that may be approved in connection with this movement. I think the Punjab may congratulate itself on being the home of the rural reconstruction movement. Long before it had become fashionable with either official or non-official agencies to try to improve the surroundings of the villager and to provide him with extra means of livelihood and with some recreation after his unceasing toil, Mr. Brayne had taken the work in



hand with characteristic energy, and he was soon followed by several other District Officers in the Punjab. He has outlived the initial period of criticism and ridicule and now the whole of India is following his lead."

Considerable sums of money are already being spent on cottage industries by Government. Whatever Government may have thought of cottage industries in the past, at the present time Government attitude towards them is friendly and sympathetic. There is no provincial Government which is not anxious to encourage them, and which has not taken practical steps to do so. Their importance is officially recognised. "Cottage industries," says the review of the working of "the Department of Industries of the Delhi Province for 1933-34, "are destined to play an important part in the economic life of the Province, as the insufficient earnings of the agricultural population point to cottage industries as a subsidiary means of livelihood." There is a Department of Industries in every Province, and these Provincial Departments are mainly concerned with hand-workers, both in towns and villages.

Incidentally it may be noted that the British Fascist leader, Sir Oswald Mosley, is a supporter of village industries for India. In his '*Greater Britain*' (new edition 1934) he writes: "We have failed to promote the development of Indian agriculture and village industry in place of the herding together of the Indian masses in virtual slavery in the new industrial cities, the chief object of which is to undercut Lancashire goods for the benefit of International capital."<sup>1</sup>

## WORK OF AN INDUSTRIES DEPARTMENT

The work of the Punjab Department of Industries in 1933-34 is briefly reviewed below just to show what this Department is doing for cottage workers and how.

The expenditure of the Department in 1933-34 amounted to a little over 11½ lakhs, of which about 3½ lakhs were spent on industrial schools. Their number is 31, including 4 or 5 private institutions which receive Government aid. The crafts taught in the industrial schools are: carpentry; blacksmithy; lacquer turning; weaving; carpet weaving; turning; mechanist, fitter and turner course; foundry course; metal work; sports gear; tailoring; *charpoy*-making; *chick*-making; cane-work; mechanical engineering; steam-engine driving; engine driving; shoe-making; fitter; electric work; electrician; and kindergarten. The number of students receiving instruction was 2,382.

In addition to industrial schools, the following institutions are maintained by the Department: Mayo School of Arts, Lahore; Weaving Institute, Amritsar; Technical School, Lahore (including School for the blind); Zenana Industrial School, Lahore; Institute of Dyeing and Calico Printing, Shahdara; and Demonstration Weaving Factory, Shahdara.

Over Rs. 9,000 was spent on the Department's Industrial Research Laboratory. The subjects of research were: Punjab oils, starch contents of Punjab cereals, possibility of starting starch and allied products industries, turpenoil, preparation of glue from Punjab raw materials, tan-stuffs, and drugs.

Of special interest are the activities of the Textile Inspector and of the Village Tanning Demonstration Party. The Textile Inspector, among other things, held demonstrations and exhibitions at cattle fairs, and gave technical advice and assistance to weavers and hand-loom factory owners in the Province. He worked out and introduced a large number of useful and marketable designs in many types of cloth (*sarhis*, towels, brocades, etc.). As the result of extensive demonstrations, we are told, the use of bobbins, jacquards, fly-shuttle sleys and other implements is becoming increasingly popular. The Village Tanning Demonstration Party gave demonstrations in the improved methods of tanning hides and curing skins.

The Department assisted various industries with loans to the extent of Rs. 81,000.

The Commercial and Industrial Intelligence Section of the Department collects and supplies information in answer to enquiries from the general public with the help of a trained staff. Over 4,350 enquiries were dealt with in 1933-34.

Such, in brief, are the activities of the Punjab Industries Department; for a fuller account the reader is referred to the Report for 1933-34. The expenditure has fallen from 15 lakhs in 1929—30 to 11½ lakhs, but that is not the fault of the Department. Provincial revenue has contracted, and every Department has suffered a reduction in its grant.

The expenditure of all Industries Departments in British India amounted to 90 lakhs in 1929-30, 82 lakhs in 1930-31 and about 70 lakhs in 1931-32.

It may be noted that a Government Department of Industries (a) has whole-time, trained workers at its disposal with many years' experience of their work and technical knowledge of the industries they have to deal with: (b) has funds for 'pioneering' and 'demonstration' work, for the practical training of hand-workers in technical schools and workshops, for making loans to industrialists, for laboratory research on a small scale, for arranging exhibitions and fairs, and for collecting such information about village and other industries as it may require, and (c), which is not of little importance, possesses the authority and prestige of Government and enjoys the co-operation of village and other officials in collecting information and in all its dealings with village craftsmen and others.

The Industries Departments are doing useful work. But it has to be emphasized that the revival of cottage, including rural industries, in the face of machine competition is a hopeless task. The Census Reports for the United Provinces, Bengal and Madras contain notes on declining industries, which deserve to be read by everyone interested in this subject (the information has been summarized in the appendix to this chapter). All the information that is available confirms the view that the development of cottage industries is no means whatsoever of lessening the pressure on the soil.

#### CAUSES OF THE DECLINE OF COTTAGE INDUSTRIES

In the 16th and 17th centuries cottage industries supplied not only our requirements, but also those of other countries. India was self-sufficient. Imports largely

consisted of articles of luxury and comfort, meant for the upper classes, and of gold and silver. The character of our foreign trade has changed profoundly in the course of the past 300 years—a change for the worse. We are no longer self-dependent, and since September, 1931, we have been exporting gold on an unprecedented scale.

The effects of machine competition on our economy can be traced from decade to decade through the census of occupations. The proportion of the population dependent on industries has declined while that dependent on agriculture has increased.

In 1901 Agriculture supported 65·2 per cent of the population and Industry 15·5 per cent. The proportions for 1921 were: Agriculture 70·9 per cent and Industries 10·7 per cent. Taking actual workers, the number engaged in Industry was 15·7 millions in 1921 and 15·4 millions in 1931, a decrease of 2 per cent. On account of changes in classification it is difficult to compare the number of workers engaged in Agriculture in 1931 with that for 1921. The Report on the census of India, 1931, Vol. I, describes the decrease of agriculturists since 1921 (2·3 per cent) as 'apparent' and says that it "is not to be taken at its face value, on account of transfer of returns to 'domestic service' and to the unspecified category."<sup>2</sup> In view of the considerable increase (10·6 per cent) in the general population, the number of agricultural workers must have increased. In the Punjab, cultivators increased 25·7 per cent in the last decade as compared with the 14 per cent increase in population.

At first the causes of the increase in the proportion of agriculturists were not understood. The Census Commissioner for 1901 did not think that the increase indicated "a greater dependence on the land due to the abandonment of weaving and other indigenous industries."<sup>3</sup> But the Census Commissioner for 1911 found himself confronted with the same phenomenon. He admitted that the increase in the number of landlords and cultivators was 'not wholly unreal.' The rise in the price of food-grains had rendered agriculture attractive, while, as he wrote, "the profits of various artisan classes have been diminished, owing to the growing competition of machine-made goods, both locally manufactured and imported," with the inevitable result that these classes showed 'a growing tendency to abandon their traditional occupations in favour of agriculture.'<sup>4</sup>

In the decade 1911—21 the rate of increase in the case of agriculturists was again faster than the growth of population, while industries 'substantially' declined.

An important historical fact emerges from the study of the occupation census—that the competition of machine-made goods, both home-made and imported, is responsible for the steady decline of cottage industries. It should be borne in mind that the number of those supported by Industry has reference largely to cottage workers. This competition has not ceased, and it affects cottage industries precisely in the same way today as it did before. The following reference to hand-loom weaving in the Report on

<sup>3</sup> *Report*, 1901, p. 207.

<sup>4</sup> *Report*, 1911, p. 413.

the working of the Punjab Industries Department for 1932-33 possesses special interest:

“The hand-loom weaver was faced with an unprecedented competition from foreign countries particularly Japan, and also from Indian mills. The weaving of coarse cloth, especially Khaddar, ceased to be a paying proposition for the hand-loom worker.”<sup>5</sup>

Most of us fail to realise the significance of these facts. The facts mean that from the point of view of nation building, or our economic regeneration, cottage industries are of no importance. They are doomed to destruction, slow and gradual as the process of destruction may be. One can easily understand that even if a cottage industry enables a villager to earn 2 pice a day, it is better than earning nothing at all. But as machine competition grows, the 2 pice will be reduced to one pice, and then to less than a pice. Our economic ideal should have a progressively increasing, not decreasing value.

The Indian Agricultural Commission made useful recommendations regarding rural industries. What, in the opinion of the Commission, was most required to stimulate their development, was new ideas. The Commission placed careful and thorough instruction in modern processes next in importance. “But,” they said in conclusion, “even with the aid of new ideas and assistance in training and marketing, the contribution which rural industries can make, in reducing the heavy pressure on the land, is infinitesimal, and in the nature of things they cannot, as a rule, hope for

ever to survive the increasing competition of organised machinery. In some cases, we are afraid that an altogether exaggerated importance is attached to their development, whereas sound reflection would show that their possible expansion is strictly limited."<sup>6</sup>

The Commission, writing in 1928, did not know that extreme importance would be attached by the country to the development of cottage industries in 1934. But their conclusion is as valid today as it was six years ago. One may go further and say that under existing conditions, when Indian organised industry is making rapid progress, the possible expansion of cottage industries is even more limited than before.

Cottage industries would prosper if machine competition could be eliminated. But is that possible? British imports have played the most important part in their destruction. And today, even if competition from Japan, Germany and Italy ceased, British competition would continue. Then there are our own mills and factories. The position of the cottage worker is hopeless.

In formulating economic ideals and framing economic policies we should never forget that economic forces are more powerful in their operation than sentiment. In our country particularly, where the purchasing power of the masses is very little, wherever and whenever cheaper goods can be supplied by factory industries (whether Indian or foreign), they will be preferred to more expensive hand-made goods even of superior quality. Sentiment counts for



little in business matters. The force of sentimental appeals to patriotism and philanthropy is soon spent.

Is it possible to revive the *gadda* goods service in competition with the railway? The revival of cottage industries in the face of machine competition is not more easy.

It is not meant that the cottage worker should be left to his fate. The Government may help him, and the Government is helping him. But the assistance given to the cottage worker is of the nature of charity. It is not nation-building. From this point of view even the work of Government Industries Departments, and the large sums spent by them every year, are of no significance.

#### WORLD FORCES AND TENDENCIES

In devising programmes for improving the economic position of the village people through the development of subsidiary industries we cannot afford to ignore world economic forces and tendencies which have, in recent years, altered the whole structure of industry in the West and the conditions under which international competition is carried on.

These forces and tendencies relate to business organisation, and they are important enough to be called a second industrial revolution. The first industrial revolution took place in England in the last quarter of the 18th century. The second began in America after the war. A Dutch writer, Mr. P. Lieftinck, makes a sharp distinction between the two.<sup>7</sup> The first, he says, was concerned with tangible

<sup>7</sup> *Economische Opstellen* (Haarlem, 1931), p. 172.

methods of production. It gave the world specialised machinery, led to the concentration of labour in factories, and created the system of mass production. The second industrial revolution is more concerned with 'intangible' methods of industrial management. It has led to the organisation of production and sale according to new principles. But the line of demarcation between the two revolutions is not distinct. Progress since the war has not been limited to any one direction. Mass production and mechanisation have been developed side by side with fundamental changes in business management, and the two movements are interconnected. 'Methodical production' is a necessary result of mass production.

Consider the progress in the mechanisation of industry. This consists in the division and sub-division of each task to be performed until it is reduced to a few simple, mechanical movements which can be easily learnt. In 1924, in the Ford works, only 1 per cent of all jobs (tool making and die-sinking for example) required 1 month to six years' training. For 36 per cent of all jobs the period of training was from 1 day to 1 week, and for 43 per cent of all jobs a training of just one day sufficed. The demand for skilled labour has diminished with the increasing mechanisation of industry. Mechanisation has also shortened the period of production. In 1920, in the Ford works, the period of production from the arrival of the ore at the plant to the shipment of the finished car was 21 days. It is now 30 hours.<sup>8</sup> A not less interesting aspect of mechanisation is

<sup>8</sup> *The Economic Tendencies of Today* by Stephen Viljoen, p. 145.

the incredible saving of labour. In 1926, when German industrial organisation was far behind the American, the number of workmen required to make a complete motor car in a German works was 120, in another 350 and in a third no less than 450, while Ford made a whole car with only  $5\frac{3}{4}$  men, not even whole 6.<sup>9</sup>

Mechanised production requires huge initial capital investment. The cost of plant for producing a new model of the Ford car (1927) was estimated at 100 million dollars, or more than 27 crores of rupees.

Mechanisation is one example of rationalisation of industry. Another is the application of methods of psycho-analysis in the selection of workmen. Workmen are not enrolled haphazardly, but after careful tests. Time-studies and motion-studies help in discovering the best methods of performing a given task. The seats, platforms, speed and lighting are all carefully attended to—they affect productivity. The result is a great increase in production and decrease in cost. Between 1919 and 1925, in the United States, productivity per man-hour increased 40 per cent in steel works and rolling mills, 52 per cent in cement manufacturing, 93 per cent in petroleum refining, no less than 139 per cent in the manufacture of automobiles and 142 per cent in the manufacture of rubber tyres.

America leads in rationalisation, but the movement has affected all Western countries. In the East Japan has modernised her industries and, aided by cheap labour, she

<sup>9</sup> *Die Arbeitslosigkeit der Gegenwart* by M. Saitzew, 1932, Part II, p. 141.

is steadily expanding her industrial output, particularly that of essentially modern articles. The use of time-saving and labour-saving machinery, accompanied by standardisation of production and elimination of waste, explains how Japan is able to sell many things in India at prices which are ridiculously low, and which would have been considered impossible 20 years ago.

International competition is more intense today than it was before the war. The growing intensity of competition and the difficulties experienced by British manufacturers in retaining their old markets account for some of the safeguards in our new constitution. Britain did not need these safeguards 75 years ago.

The village reconstruction programme ignores the revolution in industrial organisation and methods in foreign countries which have enormously increased their power of competition as compared with that of the Indian hand-worker. The rest of the world talks in terms of rationalisation, and India in terms of charkha and khaddar! Economic reconstruction in India means reversion to antediluvian methods of production! !

Our main conclusions on this subject may be stated thus:

1. The most that can be said for cottage industries is that they will enable village people to make a very slight addition to their income from cultivation.
2. But the products of cottage industries are exposed to machine competition.
3. The effect of this competition is ruinous. It accounts for (a) the steady decline in the proportion of the

population dependent on Industry and (b) increase in the proportion of the population dependent on agriculture.

4. Cottage industries are no means of relieving the heavy pressure on the land.

5. The rationalisation of industry in foreign countries has intensified machine competition a hundredfold, and it is not possible for India to escape this competition.<sup>1</sup>

6. Economic reconstruction, based on cottage industries, is not only of very limited utility, but of progressively diminishing utility.

7. While it is not possible to save the cottage worker from eventual destruction, we may assist him in his unequal struggle with machinery so long as it lasts. The best way of doing so is through Government Industries Departments, which have adequate funds at their disposal and the assistance of a technical staff necessary for the purpose.

#### RURAL SELF-INSUFFICIENCY

The idea of making the village people 'self-reliant and self-sufficient,' is attractive. Let us consider the exact extent to which village people are not self-reliant and self-sufficient at present, and of the increase in their prosperity which self-reliance and self-sufficiency would bring.

The figures given below have been borrowed from one of the invaluable studies by Prof. Kartar Singh of the Lyallpur Agricultural Collage—" *Family Budgets, 1932-33, of Four Tenant Cultivators in the Lyallpur District.*"<sup>10</sup>

The four tenants, along with 36 others, cultivated the Risalewala Government Farm of a little over 800 acres.

<sup>10</sup> Published by the Board of Economic Enquiry, Punjab.

The accounts of this Farm are available for a number of years and are of extraordinary interest. The four tenants cultivated in 1932-33 about a square of land each (the average amount of land per cultivator in the Punjab is about 7 acres; a square is equal to about 28 acres). The total family income and the family expenditure of the four tenants are shown by the statement given below:

TOTAL FAMILY INCOME AND EXPENDITURE OF 4 TENANTS, A, B, C, D

	A	B	C	D
	Rs. as.	Rs. as.	Rs. as.	Rs. as.
Income from cultivation	413 14	243 7	530 5	358 8
Sale of milk ..	21 7	7 0	18 11	6 2
Picking cotton ..	12 0.	4 11	4 7	7 3
Carting ..	....	....	3 2	5 6
Casual labour ..	2 13	2 3	13 8	3 15
	<hr/>	<hr/>	<hr/>	<hr/>
Total Income ..	450 3	257 5	570 2	381 3
Total Expenditure ..	469 8	406 14	457 4	544 14

It will be seen that in three cases out of four expenditure was greater than income. In the case of tenant C alone income from cultivation exceeded total expenditure.

The Farm is cultivated on the *batai* system, that is, the gross produce is shared half and half between the Government as landlord and the tenants. The tenants do not pay the land revenue, but the whole of the water rates. As a rule, tenants of private landlords pay half the land revenue and half the water rates. Paying the whole of the water

rates but no land revenue imposes about the same burden on the tenant as paying half of both charges.

We may also note that the net returns of this Farm to Government in 1932-33 were Rs. 20,197, while the net returns to the 4 tenants amounted to Rs. 10,793. The share of the landlord in the net income (found without making any allowance for the wages and profits of the cultivators) was something less than double that of the worker.

On an average the total family income of a tenant from all sources, taking our 4 tenants alone, was Rs. 415 as against an average expenditure of about Rs. 470. The gap between average expenditure and average income from cultivation alone was wider.

How was the income spent, or what are the main items of a cultivator's expenditure?

Food and clothing account for 85 per cent of the expenditure (food 64·3 per cent and clothing, including shoes, 20·7 per cent). Fuel costs nothing. Other items are: housing 0·6 per cent, medicine 1·0 per cent, light 1·3 per cent, education 0·1 per cent, religion 1·4 per cent, travelling 6·0 per cent, social ceremonies 1·1 per cent, amusements and luxuries 1·6 per cent, and miscellaneous 1·9 per cent.

We are particularly interested in the expenditure on goods and services which were not furnished by the Farm, and its proportion to total expenditure, for that will give us the exact measure of the lack of self-reliance and self-sufficiency of these cultivators. The total expenditure per family amounted to Rs. 469·10 of which Rs. 264·15 was

spent on goods and services supplied by the Farm (56.4 per cent of total) and Rs. 204-11 on those supplied by the external world (43.6 per cent of total).

It appears thus that to the extent of more than half of their total needs these tenants were self-reliant and self-sufficient.

What were the goods and services which they procured from the outside world? To what extent was it possible for them to avoid making external purchases?

The minor items may be considered first. The expenditure given is average expenditure per family.

(1) Housing, including furniture, cost Rs. 2-10. Housing means repairs, and furniture does not mean tables and chairs.

(2) All medicines were purchased from outside. Price Rs. 4-11.

(3) For lighting kerosene and rape-seed oil were used. Kerosene is cheaper. Other costs under this head represent recurring charges on account of repairs and replacement of lamps, chiefly hurricane lanterns. Lighting cost Rs. 6-2.

(4) Religion accounts for Rs. 5-6. The tenants, who are Mohammadans, paid this amount to the Maulvi of a mosque.

(5) Rs. 28 was spent on railway travelling.

(6) The expenses incurred in connection with social functions (marriage, betrothal, birth, etc.) amounted to Rs. 5-4.

(7) The amount spent on education was insignificant, 10½ annas.



(8) Amusements and luxuries (festivals, fairs, cinemas, theatres, drinks, tobacco and other personal enjoyments) cost Rs. 7-10.

(9) Miscellaneous payments to the outside world amounted to Rs. 3-8.

The total of these payments is Rs. 63-12, or 13·5 per cent of total expenditure.

It will be admitted that these payments are moderate in amount and unavoidable. In some cases (religion, social ceremonies and amusements) the expenditure is abnormally low. It is obvious that no tenant spent money on the marriage of his own son or daughter. In the case of Hindu villagers, as a rule, social ceremonies would account for at least 5 or 6 per cent of total expenditure, instead of 1·1 per cent, as in the present case. As regards education, medicine and travelling, an increase in expenditure would be highly desirable.

The two remaining items are food and dress. The tenants spent Rs.54-9 per family on the purchase of food from outside. 81·9 per cent of the expenditure on food was on the products of the Farm and 18·1 per cent on purchased food.

The articles purchased were refined sugar, rice, meat, pulses (*mash* and *massur*), fruits, vegetables and salt.

The consumption of *gur* amounted to 37·8 seers per adult male, and of refined sugar 4·8 seers costing Rs. 1-8.

Some consumption of refined sugar must be allowed for. It is used on special occasions, particularly when guests come, and for purposes which are well known. The dependence of villagers on the external world for the food-

products mentioned is inevitable. Salt is a necessity of life.

Payments for food to the outside world amount to 11·5 per cent of total expenditure. Adding to this the expenditure on the nine items mentioned above (13·5 per cent), it is found that 25 per cent of the expenditure, out of a total of 43·6 per cent, incurred for purchases from outside, is necessary.

There finally remains the big item of dress, Rs. 97·2 per family, of which 88·9 per cent was spent on cloth from outside. Cloth to the extent of 11·1 per cent was made at home—not by the tenants but by the village weaver. The cultivator is not a weaver. The rest of the cloth was acquired through exchange for home-spun yarn or purchased with cash.

It is well-known that village people wear *khaddar* habitually. But there is a demand for mill-made cloth (whether Indian or imported) for special purposes, e.g., as presents to relatives or for use at special functions (marriages, festivals, etc.). This mill-made cloth is finer and more gaudy than *khaddar*, though not necessarily more durable. Villagers need not buy mill-made cloth.

All that the campaign to make villagers self-reliant and self-sufficient means is this: that the money which they spend on mill-made cloth may be spent on *khaddar*. The campaign affects about 19 per cent of the total expenditure of the cultivator.

Can the cultivator be persuaded to give up the use of the fine and gaudy mill-made fabrics?

Can we, who live in towns, do without silks, carpets, high-powered motor cars and radio-sets?

All of us spend a little money on luxuries or things which please our vanity.

The utmost that one may hope to achieve is a slight reduction in the use of mill-made cloth and an increase in the quantity of yarn produced in the villages. The cultivator cannot be made much more self-reliant and self-sufficient than he is at present.

#### APPENDIX: COTTAGE INDUSTRIES

##### UNITED PROVINCES

Indigenous industries "are rapidly declining" for the following main reasons:

1. Machine competition. Machine-made goods are cheaper, are better advertised, and present a wider range of choice.

2. Small industries in articles of luxury are subject to changes of fashion and ideas.

3. Both the former patrons and producers are poorer than they used to be. Improvidence and intemperate habits have made the cottage worker poor.

4. Lack of co-operation among workers. They undercut each other and thus spoil the market. The price at which the neediest worker sells rules the market. By combining the producers will be able to raise prices.

5. Loss of skill and knowledge. This is partly the result of the falling off in demand.

"The improvement and extension of the cottage industries of the province," says the Census Commissioner, "is

of vital importance. It would seem that the only remedy is for commercial men to pick out the cottage industries the products of which are likely to meet with a demand in this country, improve the processes as far as possible, and advertise and make arrangements for distribution."<sup>11</sup> He thinks the competition with machine-made goods in the United Provinces is of significance to organised industries, but "of secondary importance to the development of cottage industries."

The more important cottage industries are the following:—

Papier Mâché in Budaun City. It is stated to "have fallen on evil times." The local manufactures cannot find even a local sale "in the face of the showy Japanese and German goods sold everywhere."

Amroha City once produced cotton pile-carpets which "adorned palaces at Delhi and Agra." Many small industries in the Moradabad District have been destroyed by money-lenders.

Amroha produces durries, which have also been affected by competition from cheap machine-made durries. Other declining or extinct Amroha industries are: embroidered caps (which have been replaced by the fez), embroidered waistcoats, *saris* and other articles of dress, brass fittings for carts and palanquins, the glass industry, "which has completely disappeared due to imported articles from Bombay and Japan," swords, *dholaks*, pottery, combs, and horn articles.

<sup>11</sup> Census Report for the United Provinces, 1931, p. 424.

The brassware industry of Moradabad is flourishing. It is now using electrical machinery to fashion the vessels. Sheet-brass is replacing *bharat* brass. *Kalai* (tinning) is being displaced by "yellow polish." These changes are reducing the number of people employed in the industry.

Village artisans in the Etawah District are abandoning their crafts and taking to agriculture for a livelihood. The glass bangles industry is not doing well, but Etawah silk and cotton cloth still have a market.

*Phul* (vessels made of a special alloy of copper, tin and certain other metals) and brassware industries of the Ballia district "are at present suffering acute depression." The demand for polished earthenware jars (decorated with geometrical designs or flowers) and for locally made perfumery has also fallen.

"Garhwal reports that cotton growing and spinning has died out completely in the last 50 years in the face of outside competition."<sup>12</sup> The import of metal wares has ruined the manufacture of wooden cooking and drinking utensils. Basket-making is also dying as a result of external competition.

Rai Bareli District makes crude glass phials, domestic utensils, and iron nut-crackers. "The fine muslim weaving of Jais, Nasirabad and other places is now reported to be extinct as a result of the spread of the cheaper machine-made varieties."

Some demand exists in Nepal for cloth woven and printed in the Fyzabad and Gonda Districts.

<sup>12</sup> *Ibid.*, p. 425.

There is a considerable export from the Gonda District of *bankas* grass used in making paper. *Patwa* fibre is also pressed and exported.

Cloth-weaving and calico-printing have declined for the usual reason. *Babka* grass is made into ropes in the Bahraich District and exported.

The indigenous sugar industry is declining in all districts. Flour mills have replaced hand-grinding in most towns.

#### DECAYING INDUSTRIES OF BENGAL

Blacksmiths are found at work in every district of Bengal. They make primitive implements used in cultivation, tyres for bullock carts and locks of a simple type.

Blanket-making is an industry of Western Bengal.

Boat-building is practised wherever there is water. Chittagong was once famous for its ship-building, and still makes a characteristic type of sea-going boats.

“Indigenous brass and bell-metal industries have been seriously affected by the importation of cheap enamel, aluminium and porcelain vessels.”<sup>13</sup>

Cotton-weaving is the most universal home industry. Silk of more than one kind is reeled, spun and woven in several parts of the province.

Other industries are the making of cart-wheels; conch shells; dyes (the making of vegetable dyes is now extinct in Bengal); *gur* and sugar; articles of horn; lac toys; lime (from *kankar*); mats; baskets and wicker-work; measuring

<sup>13</sup> Census Report for Bengal, 1931, p. 304.

bowls of wood ornamented with brass plates; pottery; sola helmets from the pith or the soft, white wood of the *sola* plant, and also toys, decorations, and bridal crowns; and vegetable oils. As illuminations, vegetable oils "have been ousted by cheap kerosene."<sup>14</sup>

#### DISAPPEARING INDUSTRIES OF MADRAS

The industries which have disappeared or are disappearing from Madras are the manufacture of glass bangles (now extinct); paper; *Kalam Kari* or printed cloth (chief seat Masulipatam); pithwork, including garlands; musical instruments and ornamental fans of Tanjore; indigo; toys; lacquer-work; boats (boat-building experienced a temporary revival at the outbreak of the war on account of the shortage of vessels); *Jutkas* (a conveyance); gold and silver lace-thread; crochet-lace; and artistic pottery. *Jutka*-building is declining on account of the development of motor transport and the opening up of the country by railway. Some of the causes of the decline of crochet-lace industry are (1) changes of fashion, (2) keen competition of Japanese lace and of machine-made lace imported from other countries, and (3) high duties levied in the United States of America and other countries.<sup>15</sup>

#### COTTAGE INDUSTRIES IN THE PUNJAB

Valuable information about cottage industries in the Punjab towns and rural areas is given in a monograph

<sup>14</sup> *Ibid.*, p. 309.

<sup>15</sup> Census Report for Madras, 1931, p. 250.

entitled "*Survey of Arts and Handicrafts in the Punjab*," prepared by the Punjab Department of Industries. I am indebted to the Department for permission to use it. It is hoped that the monograph will be soon published.

A village community requires articles of domestic use, and agricultural tools and implements. It is the function of village artisans to meet these requirements. A very large proportion of the goods that they produce is thus meant to satisfy a local demand.

The weaver produces coarse cloths of various descriptions, *i.e.*, *durries*, *khes* (bed-spread), *dotahis* (bed-spread), *chadars*, *Khaddar*, *tehband* (waist-cloth), *lungis* (turban-cloth), *daryais* and coarse woollen *lois*, blankets, etc.

The blacksmith supplies agricultural implements made of iron such as ploughshares, axes, rakes, scythes, and iron pots, fans and other utensils. Expert blacksmiths make Persian wheels and spare parts.

The carpenter supplies agricultural implements made of wood and articles of domestic use.

The shoemaker supplies leather parts of agricultural implements and shoes, the blacksmith's bellows, the water-carrier's *mashak*, leather thongs, whips, etc. The potter makes glazed and unglazed clay crockery and toys, earthen vessels, *hukkas*, *chilams*, bricks, etc.

Other rural craftsmen are tanners, oil-millers, tailors, goldsmiths, dyers, masons, calico printers, utensil-makers, brick-moulders, and rope and string manufacturers.

The following village industries also deserve to be mentioned:



Leather tanning (Lahore, Multan, Sialkot and other districts), weaving of specialised designs (Multan and Hoshiarpur, and near Leih and Bhera), wool-weaving (Muzaffargarh and Kulu valley), silk-weaving and Multani *lungis* (Multan, Hoshiarpur and Amritsar), mat-making and basket work (Muzaffargarh), Persian wheels, reed-stools with and without arm rests (Kasur), papier mâché and clay toys (Kangra), Damascene work, weighing scales, lacquer-work, spinning wheels and *piras*, mother-of-pearl buttons, links, hair-clips, earrings, watch-chains, bracelets, necklaces, rings, etc. (Jullundur), shellac (Jullundur), woollen blankets and rings (Jullundur), chased lacquer-work (Hoshiarpur), fodder-cutters, sugar-cane presses, oil-engines and sugar centrifugals (Jullundur), trouser-strings, brass and ivory inlaid and carved furniture and lacquer-work toys (Hoshiarpur), brass and copper utensils (Hoshiarpur), cutlery (Gujranwala), floor-durries (Gujranwala), wooden combs, and harness and saddlery (Gujranwala).

The industry which supports the largest number of craftsmen is cotton-spinning, weaving and sizing—2½ lakhs of male and female workers in the Punjab.

Most of the articles produced by village craftsmen are crude and bulky, and the external demand for them is negligible. It is further stated:

“The output of industrial products both for the market and household consumption has declined considerably owing to the heavy imports of cheaper substitutes.”

This is true of both agricultural implements and articles of domestic use.

The wooden Persian wheel is being replaced by iron Persian wheels fitted with galvanized iron-sheet buckets, the wooden flour mills by iron-mills, the hand-chopper by the mechanical cutter, and the wooden sugar-cane crusher by the iron-roller. Cheap tin enamel-ware and aluminium-ware are replacing the products of the village potter and metal utensil makers.

As the result of this competition the profits of rural artisans have fallen "to the barest minimum."

The position of most of the hand-workers in towns in this respect is very much the same: "The importance of the articles produced by handicraftsmen is declining on account of cheap imported substitutes and Indian mill-made goods which come into competition with them."

A list of the handicrafts practised in the towns of the Punjab is given below:—

**METAL:** Steel trunks; masonry instruments; utensils of brass, copper and bronze; locks; carpenter's tools and instruments; knives; swords; kirpans; scissors and razors (Jagadhri); iron vessels and almirahs (Jagadhri); iron safes (Amritsar and Gujranwala); tinware; iron railing and gates; gold and silver-refining; fly-shuttle loom (Amritsar); galvanized iron sheet trunks, tubes, buckets, etc. and Persian wheels; iron chairs and tables; macaroni machines and brass handles for almirahs; tailor's iron; joiner's hammer; charcoal boxes; wool-clippers; sugar-pans and *karahis* (Batala); *Kharas* or flour-mills; cutlery (Wazirabad); hunting and garden knives (Wazirabad).

**TEXTILE:** Cotton bed-sheets; silk lungis; woollen *chaddars* and *dhussas* (Jalalpur Jattan); woollen blankets

(Panipat); silk *saris*, shirtings and suitings; artificial silk; *daryai* shirting and curtain cloth; raffle cloth; machine-embroidered shawls (Lahore and Amritsar); dyeing; cotton piece-goods; wool-cleaning (Fazilka); cotton and woollen yarn; cotton tussore; trouser-strings.

**ARTISTIC:** Fancy wood-work (Chiniot); embroidered *kullahs*; clay toys (Ropar); glazed pottery (Multan); calico-printing; *chiken-dozi*; ornamental painted leather vessels (Multan); carpets (Multan and Amritsar); silver-enamelled goods; ivory boxes; lacquered wood-work; *gotakinari*; embroidered shoes; artificial jewellery; *phulkari* embroidery (Jullundur); lac bangles; gold and silver ornamental utensils.

**LEATHER:** Gut (Sialkot); tanned leather; bottles and jars for containing oil (Jhang); boots and shoes (Karnal and Hansi); belting; harness and saddlery; Indian shoes.

**WOOD:** Basket-ware; furniture; cane walking-sticks; combs of horn and wood; cart and cart-wheels; bed-legs; wooden slippers; flutes (Kartarpur); packing boxes.

**MISCELLANEOUS:** Sports goods (Sialkot); musical instruments; hand-made paper (Sialkot); book-binding; ink; card-board boxes; shellac; brushes; *chik*-curtains; bricks; hemp-ropes; tiles (Amritsar); *patra*-mats and brooms; sugar candy (*misri* and *kuza*); confectionery and bakery goods; jams, *chutney* and pickles; vinegar; bar-soap and toilet soap; perfumery; essences and hair-oil; perambulators and tri-cycles (Amritsar); tobacco; non-leather shoes with soles of worn-out motor tyres; candles; *dhup* (incense); phenyl and disinfectant fluids; lime, *sarkhi* and *khaka*; chalk, pencils and crayons (Gujranwala).

## THE MALTHUSIAN DOCTRINE AND OVER-POPULATION

In book II, Chapter XIII of his *Essay on Population* Malthus thus summed up his conclusions regarding the growth of numbers:—

“The increase of population is necessarily limited by the means of subsistence:”

“Population invariably increases when the means of subsistence increase, unless prevented by powerful and obvious checks:

“These checks, and the checks which keep the population down to the level of the means of subsistence, are moral restraint, vice and misery.”

This Natural Law of the growth of population, as Malthus regarded it, has not been universally accepted. Malthus' doctrine found many opponents in his own time, and in more recent times, that is, towards the close of the 19th and the beginning of the 20th century. Malthus has been severely criticised by economists of note in Germany and elsewhere. One of them, Dr. Franz Oppenheimer, goes so far as to say that Malthus' *Essay* is not a work of genuine scholarship, that there is in Malthus a complete lack of logical ability, and that it is almost a physical torment to wade through the *Essay* with its endless repetitions, etc.\*

\* Das Bevölkerungsgesetz des T. R. Malthus und der neuen Nationalökonomie, by Dr. Franz Oppenheimer, p. 64.

He gives two reasons to explain the popularity of the Malthusian doctrine and the importance which it acquired. Firstly, the theory absolved the bourgeoisie from all blame for the crying misery of the working classes, and made a Natural Law responsible for it. Secondly, Malthus has been misinterpreted, and the theory which is taught in his name in Germany is not altogether devoid of sense—it is an opponent worthy of Oppenheimer's steel, whom he proceeds to demolish.

Karl Marx preceded Oppenheimer in condemning the Natural Law of Malthus as a partisan doctrine. It suited the interests of the ruling classes whom Malthus glorifies, says Marx, to explain overpopulation as the result of the eternal laws of nature, rather than of the historic natural laws of capitalistic production.\*)

On the other hand, the Malthusian doctrine has found many supporters in all countries, the most prominent among them being John Stuart Mill (1806—1873) in England, Say (1767—1832), Sismondis (1773—1842) and Quetelet (1796—1874) in France, and Rau (1792—1870) and Robert von Mohl (1799—1875) in Germany. As regards the influence of this theory it will be sufficient to say that the reformed English poor law of 1834 was the result of Malthus' teaching, and that in Germany, Austria and Switzerland legislation was enacted in the first half of the 19th century with the object of discouraging marriages among the working classes, permission to marry being given, as in Württemberg, only if it could be shown that the

\* *Das Kapital*, p. 466 (Kautsky's edition of 1914).

couple intending to marry possessed adequate means of subsistence.

In England Dr. Marshall accepted the Natural Law of Malthus, and gave him "a place among the founders of historical economics." He held that the second and third steps of Malthus' argument, though "antiquated in form," were "still in a great measure valid in substance," and concluded:

"It remains true that unless the checks on the growth of population in force at the end of the 19th century are on the whole increased (they are certain to change their form in places that are yet imperfectly civilized) it will be impossible for the habits of comfort prevailing in Western Europe to spread themselves over the whole world and maintain themselves for many hundred years."

Assuming the population of the world to-day to be one and a half thousand millions and the rate of increase to be 3 per 1,000 annually, Dr. Marshall calculated that in less than 200 years the population of the world will amount to 6,000 millions. Allowing for improvements in the arts of agriculture, Dr. Marshall thought that "the pressure of population on the means of subsistence may be held in check for about 200 years but not longer."\*

Similar calculations have been made by others.

These calculations were never of any very great practical utility, and at the present time one can afford to ignore them altogether.

\* Principles of Economics, p. 180.

As we have seen, biological and mechanical progress has brought about an overproduction of food in recent years. The fear of death by starvation on account of insufficiency of the means of subsistence is to-day more groundless than ever before.

The question of food supply is no longer local, as it was in India before the opening up of the country by the railway and the linking up of our ports with foreign ports by means of the steamship. A local shortage of food can be easily remedied by imports. An industrial country need not depend on her own production for feeding her population. India may import food as easily as any industrial country, provided she has the means of paying for the imports.

With the enormous increase in the world-production of food and the improvement and cheapening of the means of transportation, the meaning of the word famine has changed.

Malthus admitted that the principle of population could not absolutely produce a famine, but, he insisted, "it prepares the way for one, and by frequently obliging the lower classes of people to subsist nearly on the smallest quantity of food that will support life, turns even a slight deficiency from the failures of the seasons into a severe dearth; and may fairly be said to be one of the principal causes of famine."<sup>1</sup> That was true of the past. It is no longer true to-day; any famine-stricken part of India can easily import food from other parts, or from foreign

<sup>1</sup> *Essay*, Bettany's ed. (1880), p. 290.

countries. Poor people may still die of want, or be carried off by cholera and 'fevers' which follow in the wake of famine. But they do not die because of lack of food. They lack the means of buying it—which is different.

The amount of food is determined by physical conditions governing production, the ability to buy it and by the distribution of wealth. Malthus' principle of population was based on the quantity of food produced relatively to the growth of numbers. The principle of population which is in operation in India at the present time has more reference to the distribution of wealth and income than to the amount of food produced by India.<sup>1</sup>

The growth of numbers in Germany and France since 1880 has been in defiance to the Malthusian law. With the help of facts and figures Prof. Paul Mombert has conclusively shown<sup>2</sup> that between 1880 and 1910 the economic development of Germany was proceeding more rapidly than the growth of numbers, and that in consequence the standard of living of the population rose. The economic progress of France in this period was slower than that of Germany, but still the rate of progress was more rapid than the growth of numbers. The increase of population amounted to a bare 2 millions in France, while it exceeded 22 millions in Germany.

The figures for the United States for the period 1849—99 are still more significant.<sup>3</sup> The population

<sup>2</sup> *Bevoelkerungsentwicklung und Wirtschaftsgestaltung*, Leipzig, 1932, Chapter III.

<sup>3</sup> *Ibid.*, p. 17.



increased from 23·3 millions to 76·1 millions (about 3·3 times), labourers employed in manufacturing industries from 937,000 to 5,306,000 (about 5·7 times), the work done by machines from 2,346,000 horse-power in 1869 to 10,098,000 horse-power in 1899 (4·3 times) and the value of industrial production from 1,051,000 dollars in 1849 to 15,476,000 dollars in 1899 (about 15 times). In view of these facts it is impossible to maintain that when means of subsistence increase, the population must increase so rapidly as to press against them, unless "prevented by obvious and powerful checks." In progressive countries no such law is in operation. The growth of numbers may be accompanied by a constantly rising standard of living.

Then, as we have seen, the rise in the standard of living calls psychological forces into operation which tend to reduce the birth rate. The fall in the birth rate in Western Europe has not been produced by the Malthusian law. It is the product of a particular mentality—of the capitalist spirit, as Dr. Ungern-Sternberg puts it.<sup>4</sup>

#### MARX'S THEORY OF OVERPOPULATION

Marx's explanation of overpopulation is more credible than that of Malthus. The experience of the last five years seems to confirm Marx's view.

Capital is of two kinds, variable and constant. The variable capital of a business consists in the sums of money

<sup>4</sup> Ungern-Sternberg regards social ambition, a product of the capitalist spirit, as *causa causans* of the fall in the birth rate. See *Die Ursachen des Geburtenrückganges in europ. Kulturkreis*, p. 319.

paid as wages; the rest of the capital, invested in machinery, buildings and raw material, is constant capital. With the growth of capitalism the total amount of capital also grows, but its technical composition undergoes a change. If originally the ratio of variable to constant capital was 1:1, it gradually becomes 1:2, 1:3, 1:4, 1:7, etc. The meaning is that with the growth of accumulation the proportion of the total capital transformed into labour-power progressively diminishes relatively to that transformed into the means of production. The growth of the working population is more rapid than that of variable capital, which leads to the formation of the "industrial reserve army" of unemployed workers. Marx regarded a surplus working-class population as a necessary product of accumulation. {

Now it is certainly true that no such industrial reserve army existed in Germany in 1880—1910, and that in the same period the growth of the French population did not supply an adequate number of workers for French manufacturing industries, so that France had to import workers from other countries. The figures given for the United States also suggest that the expansion of American industry kept American workmen fully employed. As for England, the last fifty years of the 19th century saw a very great expansion of British trade and industry, resulting in a very great improvement in working-class standards of living. But the Marxist has an effective reply to this criticism. { Capitalism grew in pre-war years and labour prospered in Western countries on account of the opening of new markets in undeveloped countries, particularly in the

East. The situation materially changed in the war and post-war years. 'Coloured' capitalism is limiting the growth of 'white' capitalism. A wide extension of capitalism must inevitably produce the conditions so clearly foreseen and so definitely stated by Marx. The last few years have seen the growth of unemployment in all the leading industrial countries of the West. Imperialist expansion counteracted the Marxian law of the industrial reserve army before the war. The law has asserted itself with the progress of capitalism. Capitalism co-extensive with the whole world is a contradiction in terms. Capitalism, thus, contains in its bosom the seeds of its own destruction.

#### RELATIVE AND ABSOLUTE OVERPOPULATION

Referring to the increase in numbers which is made possible by the growth of trade and industry and other factors Schmoller said:

“ In view of what has been said above it will be readily admitted that there was no overpopulation in the absolute sense at any time in the past, nor is there overpopulation in this sense at the present time, in so far as we understand by that term a population which cannot live in its territory in spite of a most complete and rapidly progressing technique, transportation system, colonisation, and moral and social organisation. These assumptions were almost never or only very rarely realised. The practical question essentially is that of actual or threatened relative overpopulation, *i.e.*, such density of population as would make

its pressure felt in view of the existing conditions of life and economic prospects."<sup>5</sup>

It is impossible to say whether any country, or any province of India, is overpopulated in the absolute sense. Japan maintains a population of 64,450,000 on an area of 332,000 sq. km., or a population equal to that of Germany on an area 19 per cent less than that of Germany (469,000 sq. km.) Is Japan overpopulated in the absolute sense? Who can say? If she is able to acquire more Chinese territory, if her trade and industry continue to grow as they have done since the war, Japan may well be able to support a population of 100 millions at a higher level of comfort and efficiency than at present. Bengal has a population of 50 millions, but, as the Census Superintendent of Bengal suggests, she might support a population of 100 millions without any fall in the standard of living if the total cultivable area were brought under cultivation and the yield per acre increased 30 per cent. Conceivably scientific cultivation may double the present yields; conceivably the industrial output may be quadrupled. Bengal is not overpopulated in the absolute sense. The question of the optimum population that a country can support can never be answered definitely, for the possibilities of economic development, colonisation and commercial expansion cannot be exactly estimated.

A more practical question, as Schmoller said, is that of relative overpopulation, or overpopulation with reference to existing economic conditions. Now economic conditions are constantly changing: there are swings of

<sup>5</sup> *Grundriss der allgemeine Volkswirtschaftslehre*, 1920, Vol. I, p. 189.

prosperity and adversity, of economic advance and retrogression. It follows that overpopulation in the relative sense is a phenomenon which is constantly appearing and constantly disappearing.

It has been suggested that the term 'temporary' overpopulation may be used in place of relative overpopulation, since it can never be said that overpopulation under any given economic conditions is a permanent phenomenon.<sup>6</sup> Mombert says:<sup>7</sup>

"All phenomena of overpopulation, whatever be their causes, are of a temporary nature. We can never say that overpopulation is permanent because we are able to form no idea of its further development."

But the word 'temporary' may mean various things—a very short, or a very long period. Over- or underpopulation due to an unfavourable conjuncture will be of a very short duration. Such over- or underpopulation Mombert prefers to call 'fluctuating over- or under-population.' He contrasts this with temporary over- or underpopulation of longer duration which is connected with problems of wealth-production. Fundamental changes in the structure of industry exercise a more enduring influence on the movement of population than changes due to conjunctural oscillations of demand.

#### THE MALTHUSIAN LAW AND INDIA

We have seen that the growth of numbers in the progressive countries of Europe and in the United States of

<sup>6</sup> *Bevoelkerungslehre* by Prof. Paul Mombert, Jena, 1929, p. 264.

<sup>7</sup> *Bevoelkerungsentwicklung und Wirtschaftsgestaltung*, pp. 7-8.

America during the past 50 years or more has not been governed by the Malthusian Law. What is the situation in India?

The main facts regarding the population of India are known to the reader. Our birth and death rates are high. The pressure on agricultural resources is steadily growing. Marriage is universal and the production of children uncontrolled. A great majority of the population lives not only near the margin of bare subsistence but below it. The reaction to disease is extravagant. And, finally, the movement of population is very peculiar, rapid increase in one decade being followed by much slower increase or practically no increase in the following decade.

Anyone who considered these facts would unhesitatingly declare that the Malthusian principle was at work in India.

Malthus' references to India form some very interesting reading. Evidently Malthus had no direct knowledge of India, his information about customs relating to marriage in India being derived from Sir William Jones' translation of Manu's *Dharm Shastra*. He refers to the strict precepts relating to the government of the passions in Manu, and among the preventive checks to population he mentions the division of the people into classes or castes, and the difficulty of changing the traditional occupation of the caste. He takes note of the custom that the elder brother must marry before younger brothers are allowed to marry, and of the difficulty with which the choice of a wife is attended, considering that, according to Manu, girls with too little or too much hair, who are too talkative, who have bad eyes, a

disagreeable name or any kind of sickness, who have no brother or whose father is not well known, and many others, are to be avoided. Malthus concluded that the preventive check was not absent in India. But he observed that early marriage was the rule in India, which led every person to marry "who could look forward to the slightest chance of being able to maintain a family." "The natural consequence of this was," he continues, "that the lower classes of people were reduced to extreme poverty, and were compelled to adopt the most frugal and scanty mode of subsistence . . . . The population would thus be pressed hard against the limits of the means of subsistence, and the food of the country would be meted out to the major part of the people in the smallest shares that could support life."\*

In such a state of things the population would suffer terribly in seasons of scarcity of food, and in epidemics which Malthus regarded as "the consequences of indigence and bad nourishment." The positive checks to population would chiefly affect the lowest class.

As regards disease, Malthus pointed out that the principal victims were always the lower classes, who were badly nourished and who lived crowded together in small and dirty houses. "In what other manner," he asked, "can Nature point out to us that if we increase too fast for the means of subsistence so as to render it necessary for a considerable part of society to live in this miserable manner, we have offended against one of her laws?" †

\* *Essay*, p. 108 (Bettany's Edition published in 1880).

† *Essay*, p. 412.

While the movement of our population is governed by the Malthusian Law, it may be again insisted that the problem is not merely one of production. If all the food that India produces were equally distributed, every one would have enough, and probably a small surplus would be left over. India makes annually 500 crore yards of cloth, and consumes annually about 600 crore yards, including imports of about 100 crore yards. If this cloth were equally distributed, the average villager would be better clothed than he is—he possesses little more than the rags he stands up in. Given the amount of wealth produced, the existing system of distribution, the number of the inhabitants, and their habits and customs relating to marriage, it would have been surprising if the Indian population had increased as rapidly as that of most European countries between 1870 and 1910.

It has been estimated that possibly a fourth of the population of the United States is underfed in a normal year.<sup>8</sup> The American standard of feeding is probably different from our own. Considerably more than half the population of our village is underfed according to Indian standards, and it is not unlikely that the proportion reaches about 75 per cent in many parts of India at the present time. A recent investigation, of an official nature, has shown that in the Punjab, Assam, Madras, the United Provinces and Bihar and Orissa only one-half of the agricultural population is in a position physically to withstand the onslaught of

<sup>8</sup> Problems of Population, edited by Pitt-Rivers, p. 334.



disease.<sup>9</sup> The percentages of those 'poorly nourished' and 'very badly nourished' in the major provinces are estimated as follows:

		'Poorly nourished.' Per cent of total.	'Very badly nourished.' Per cent of total.
Punjab ..	..	38	20
United Provinces ..	..	39	21
Central Provinces ..	..	50	18
Bihar and Orissa ..	..	40	18
Bengal ..	..	47	31
Madras ..	..	33	18

The 'very badly nourished,' we are told, may economically be said to be already dead.

India is overpopulated in the relative sense. There is no doubt about that.

But our relative overpopulation is not of the conjunctural kind. Neither can we speak of fluctuating over- and under-population in India in the whole period 1872—1931. There has been relative overpopulation throughout the past 60 years, as shown by the irregular rate of increase, due to the strong reaction of the population to famine and disease.

### SYMPTOMS OF OVERPOPULATION

In an agricultural country famine may be regarded as a worsening of conjuncture. But the connection between famines and overpopulation is not so intimate as Malthus thought. There was heavy famine mortality in 1876—78.

<sup>9</sup> The report on this interesting investigation has not been published. A summary appeared in *The Civil and Military Gazette of Lahore*, dated May 25, 1933.

It might be said that this famine mortality was an indication of extreme pressure on the land and therefore a symptom of overpopulation. But even if a square mile of cultivated area supports only 50 persons, provided food cannot be imported from outside, a widespread failure of the rains (in the absence of canals and other artificial means of irrigation) must cause starvation and death. If density is light, fewer people die—that is all. Famine mortality is not always a reliable symptom of overpopulation, for under certain conditions famine mortality may occur in an underpopulated country, and under other conditions (as in India at present), there may be no direct famine mortality in spite of overpopulation.

A fall in the standard of living of large masses of the population is the inevitable consequence of a rapid increase of numbers when the economic resources of a country fail to expand correspondingly.

A fall in the standard of living weakens the disease-resisting power of the people. The reaction of the population to disease is suggested by Indian experience as a reliable test of overpopulation.

As we have seen, the masses in India are peculiarly susceptible to the attacks of epidemics. In this respect there has been no change for the better during the past 60 years. Epidemics are some of the most powerful "correctives of the redundancy of mankind," and their prevalence in India shows that the country is overpopulated. Since epidemics (aided or unaided by famine) have played an important rôle in determining the growth of numbers in India since 1872, it may be concluded that overpopulation

in India is of an enduring kind. One might even speak of permanent overpopulation in India. For unless there is a radical change of economic system and in the economic conditions in this country, no large change in the reaction of the masses to disease can be expected.

The Indian Census Commissioner for 1921 did not admit that there was a connection between the prevalence of disease in India and the economic circumstances of the people. The annual fluctuations of the birth and death rate in his view were "probably much more dependent on the intensity of the onslaught of the principal diseases, due to conditions of climate and environment, than on any supposed variation in the resisting power to them of the people owing to economic circumstances."<sup>10</sup>

It would be difficult to establish a connection between the increase in the death rate in any year and the economic conditions of that or the preceding year. The influenza epidemic (1918-19) indeed came at a time of widespread crop failures, but the two preceding years were years of bumper crops. No epidemic is directly caused by crop failures or poverty, but when an epidemic does come, the economic circumstances of the people have an important share in determining their reaction to it.

Mr. G. F. Hardy, who wrote the actuarial report on the Census of 1831, was struck by the large proportion of children and the small number of old persons in India. That pointed to a high death rate and a low rate of increase per annum—"about one-fourth less than the English rate of increase." "Hence, a merely general view of the age

<sup>10</sup> *Report*, Vol. I, p. 55.

tables demonstrates the fact," said Mr. Hardy, "that the death rate in India is considerably higher than in England, and consequently, that the average duration of life must be shorter, conclusions which are confirmed by the more detailed examination to which the materials available have been subjected."\*

He did not consider the higher death rate to be "entirely the effect of periodical visitations of famine and epidemics" as in years which were entirely free from these scourges the death rate still remained very much higher than the average death rate in England. He thought that a large part of the additional mortality was the effect of climate and the general sanitary conditions of the country. "On the other hand, however," he said, "it is not at all improbable that it is partly caused by a deficiency of stamina in the native races as compared with the English. Not only are vast numbers of the poorer classes unfed, but they are descended from generations subject to the same disadvantage, and thus inherit constitutions less robust from the first than those of European races, and at the same time having, unfortunately, to contend against greater odds in the struggle for existence."†

#### GRAVITY OF THE PROBLEM

The population problem is a grave one. But it is ignored both by the Government and public leaders.

We have discussed the system of land taxation (Chapter II). We have seen that in a country where

\* CENSUS of 1881, Report, p. 172.

† *Ibid.*

considerably more than half the total village population is underfed, the main burden of provincial administration rests on the cultivator.

No attempt has been made by Government to reduce the pressure on the soil by diverting surplus population in the villages to towns. The Famine Commission of 1880, which examined the experiences of the devastating famine of 1876—78, drew pointed attention to the necessity of developing non-agricultural sources of livelihood. But it was not until 1924 that India adopted discriminating protection as her tariff policy. Till the outbreak of the Great War we levied a 5 per cent duty on imports for revenue purposes, and the Indian cotton-mill industry paid an excise duty till the year 1926.

The Government is taking a keen interest in the development of cottage industries, and prominent public men are associated with the rural reconstruction movement. [But the *charkha*, khaddar, and *gur*-making will not solve the population-problem. It is ridiculous to think that cottage industries can be revived when machine-competition is growing in intensity, or that any change can be induced in the reaction of the village people to disease by adding "a few pies" to their daily income.]

#### THE PROBLEM OF DISTRIBUTION

Much of the present economic distress in India and other countries is due to mal-distribution of wealth.

The fall of prices, which has produced such ruinous consequences for India and other agricultural countries, is attributed to overproduction. But in view of the large

unsatisfied demand in the world for almost everything, this overproduction must be understood in relation to effective demand. Production has not exceeded the limits of human consumption; probably it never will.

When production exceeds effective demand and prices fall, the balance between production and consumption may be restored, and a rise of prices brought about, in one of two ways: (a) stimulating demand by increasing the purchasing power of the masses or (b) reducing supply.

Restriction of production is an old and tried method. There is no doubt whatever that if production is sufficiently restricted, prices must rise.

But restriction of production implies that producing capacity is not fully utilized. It is a retrograde step. Science and invention have created the means of lessening human toil and increasing human comfort. A fall of prices enables the poorer classes to share in the gains of progress, and is, therefore, a matter for rejoicing. When an attempt is made to raise prices by the restriction of production, undeserved injury is inflicted on the consumer.

A way of escape from our present difficulties, which has been suggested, is return to the simple life, a state of things in which wants are few, and each family is self-sufficient, producing largely what it consumes. We have seen that, at the present time, even village economy is not self-sufficient. A return to the simple life of pre-historic times is not inconceivable, but for that we have first to isolate ourselves from the rest of the world.

It deserves to be emphasized that even if the isolation of India from the rest of the world were possible, the simple

life would be a life of greater poverty and hardship for the masses than at present.

The right way of restoring the balance between production and consumption is not by capitalist sabotage, or reversion to hand-power, which is an attempt to sabotage civilisation, but a better distribution of wealth.

This is generally recognised. The world has not turned socialist but even in countries which may be described as strongholds of capitalism, it is beginning to be felt that a crisis such as the present cannot be overcome without stimulating mass consumption.

Take, for example, the American plan of recovery. The great national effort to stimulate consumption is an essential part of the plan. President Roosevelt is not a socialist, but on signing the National Industrial Recovery Act he said:

“The law that I have just signed was passed to put people back to work—to let them buy more of the products of the farms and factories and start our business at a living rate again. It seems to me to be equally plain that no business which depends for existence on paying less than living wages to its workers has any right to continue in this country . . . and by living wages I mean more than a bare subsistence level—I mean the wages of decent living.” And “decent living,” said the President, “widely spread among our 125,000,000 people, means the opening up to industry of the richest market which the world has known.”

Decent living, widely spread among our 353,000,000 people, will mean the creation of a market for the products of our large-scale industry far bigger than the United States.

There is a growing consciousness throughout the world of the grave inequality in the distribution of wealth under the existing system, and of how this inequality restricts the purchasing power of the masses. Even from the point of view of the capitalist it is desirable to bring about a more equitable distribution of wealth. For, it is easy to produce more and more goods, but it is difficult to sell them when the masses have little purchasing power. In this connection the reader's attention may be drawn to an interesting article in the "*London Spectator*" of December 21, 1934, by Mr. Thomas Burns. The author is a young capitalist who fails to understand the policy of his elders. He blames them for having landed us "in this grand economic muddle we call Modern Capitalism." There are moments when he despairs of "the idiocy" of his elders. "Modern capitalism," he says, "never fails to produce enough goods: it continually fails to produce enough customers." The young capitalist bewails the loss of England's old customers. "We must at all costs find new customers. We shall find—I am finding—some useful ones among our Imperial connection." But in her own population England has a "far vaster reservoir of customers"—if their purchasing power can be increased. Referring to the 50 million inhabitants of the British Isles the young capitalist says: "The vast majority of them are still only to be described as poor: they have not sufficient purchasing power to satisfy their reasonable needs: their poverty, I, the young capitalist, regard as at once my greatest opportunity and my greatest menace. If their poverty has not been changed in the next few years into a reasonable measure of wealth, then



capitalism will be swept away into the limbo of futilities, and rightly so."

If the vast majority of the 50 million inhabitants of Britain are still only to be considered 'poor,' is there any word in the English language which adequately describes the economic condition of the vast majority of our 353 millions?

#### DISTRIBUTION OF WEALTH IN INDIA

It is sometimes thought that wealth is more equitably distributed in an agricultural than in an industrial country. But the distribution of wealth in India is inequitable enough.

The Punjab is an agricultural Province and the chief source of our wealth is land. How is land distributed among owners in this Province?

The following figures have been taken from a publication of the Board of Economic Inquiry, Punjab, entitled *The Size and Distribution of Agricultural Holdings in the Punjab* (1925). The author is Mr. H. Calvert, I.C.S., who was then Registrar of Co-operative Societies:

	Owner No. (1000)	Per cent of total owners	Land owned, acres (1000)	Per cent of total land
I ..	625	17.9	313	1
II ..	1,428	40.4	3,200	11
III ..	919	26.2	7,753	26.6
IV ..	313	11.8	10,300	35.6
V ..	121	3.7	7,452	25.7
TOTAL ...	3,406	100.0	23,818	99.9

The estimates are not exact, but they indicate sufficiently clearly the manner in which land is distributed among owners in the Punjab. Take the first two classes together. Roughly, over 53 per cent of the owners own only 12 per cent of the cultivated area, while less than 4 per cent of the biggest owners (class V) own a little more than one-fourth of the cultivated area. If we take the last two classes together, it is found that more than 61 per cent of the cultivated area is owned by 15·5 per cent of the total number of owners.

The smallest owners, 17·9 per cent of the total, possess less than 1 acre of cultivated land, and class II, 40·4 per cent of the total owners, possess from 1 to less than 5 acres. Thus more than half of the owners possess less than 5 acres each.

The smaller owners take extra land for cultivation from bigger owners. From this point of view there is not much to choose between tenant cultivators and the smallest owners.

Landlordism as a factor affecting the distribution of wealth is of considerable importance in the Punjab. According to Census figures (1931), taking male earners alone whose principal occupation is agriculture, there are in the Punjab about 2 lakhs of non-cultivating proprietors who live on rent paid in money or kind, as compared with 17 lakhs of cultivating owners, 11 lakhs of tenant cultivators and 5 lakhs of agricultural labourers. Those who live on rent form only 5·4 per cent of the total sub-order (a), *Cultivation* (35·4 lakhs), but the actual distribution of land among owners shows very great inequalities. It limits the

purchasing power of smaller owners and of tenant cultivators.

Landlordism is of much greater importance in the United Provinces and Bengal.

Mahatma Gandhi's idea is to bring about a better distribution of wealth in our villages by making the landlord trustee of the welfare of tenants. Mahatma Gandhi's mistake lies in interpreting human nature in his own terms. The only real solution of the problem of distribution consists in a change of system which makes the State the universal trustee.

Socialist planning has been discussed in *India in the Crisis*. In socialist planning—economic as well as cultural—lie our hopes of progress. Cultural planning will educate the masses and lead them to take a rational view of life, and particularly marriage. Under existing conditions we spend about 45 crores on the Army and 12 crores on the police; but there is no money for mass education. Poor, illiterate and ignorant as the masses are, their passions are easily inflamed by communal leaders, and from time to time India celebrates orgies of communal rioting, murder, and arson. Communal leaders are no common men. They enjoy rank and titles, and are honoured by Government. Mass education, combined with a rational view of life, will lead to the limitation of births, and incidentally solve the communal problem. A State-planned, State-directed and State-controlled system of production may in less than a generation build up a sound industrial system on modern lines, withdraw surplus labour from the villages, thus reducing the growing pressure on the land, and modernise

agricultural methods. A greater production of wealth, and a better distribution of it are the real means of saving the people from epidemics. †

A rise in the standard of living of the masses will create in them a desire for a higher and richer life. No one wants numbers to grow recklessly in this country. An enlightened, well-fed, well-clothed and properly housed population of 150 millions is better than a crowd of 353 millions, most of whom do not know the meaning of education and culture, are economically speaking more dead than alive, and exist only as *balidan* for epidemics.

CHAPTER VI

1. AGRICULTURAL PRODUCTION

The following table shows the average yield of the principal crops in 1910-11 to 1914-15, 1928-29 to 1932-33 and in the year 1932-33:—

YIELD OF PRINCIPAL CROPS

		Average 1910-11 to 1914-15	Average 1928-29 to 1932-33	1932-33	1933-34
Rice, million tons	..	28.4	31.9	31.0	30.9
Wheat, million tons	..	9.7	9.4	9.4	9.4
Sugar (raw), million tons	..	2.4	3.5	4.7	4.9
Tea, million lbs.	..	290.1	411.2	433.7	(a)
Cotton, million bales*	..	4.4	5.0	4.5	5.0
Jute, million bales	..	9.1	8.8	7.1	8.0
Linseed, 1,000 tons	..	508	380	405	379
Rape and Mustard, 1,000 tons	..	1,226	1,014	1,052	957
Sesamum, 1,000 tons	..	471	500	547	541
Castor seed, 1,000 tons	..	114†	125	149	143
Groundnut, 1,000 tons	..	695	2,624	2,934	3,330
Indigo, 1,000 cwts.	..	37	13	11	(a)
Coffee, million lbs.	..	23.6‡	33.5	33.7‡	(a)
Rubber, million lbs.	..	13.0‡	25.1	6.0	(a)

The noteworthy changes as compared with the pre-war average are a considerable increase in the production of sugar-cane, tea, and groundnuts.

(a) Not available.

\* A bale contains 400 lbs.

† Average 1920-21 to 1924-25.

‡ For 1931-32.

The yields of other crops in 1932-33 were: Barley 2.4 million tons; jowar 6.5 million tons; bajra 2.6 million tons; maize 2.1 million tons; gram 3.5 million tons and tobacco 608,000 tons.

Both the area and the yield of sugar-cane have been steadily expanding since 1929-30. Jute has suffered a setback. The area under this crop in 1930-31 was about 3·5 million acres and yield 11·2 million bales; the figures for 1932-33 are 2·1 million acres and 7·1 million bales. Production of oil-seeds has increased during the past five years. Indigo has steadily lost ground, but it is an old story. The production of rubber fell heavily from 20 million lbs. in 1931-32 to a little over 6 million lbs. in 1932-33. The explanation lies in general overproduction and the heavy fall in price.

#### DISTRIBUTION OF CROPS

*Rice.*—The most important centres of production are: Bengal (9·4 million tons); Madras (5·4 million tons); Burma (about 5 million tons); and Bihar and Orissa (a little over 4 million tons). The exports of rice amount to 6-7 per cent of total production.

*Wheat.*—Wheat is most largely grown in the Punjab and the United Provinces (about 3 million tons each). The exports are negligible at present. The last year in which India exported a considerable quantity of wheat (over 1 million tons, valued at 17 crores of rupees) was 1924-25.

*Sugar-cane.*—In 1932-33 the United Provinces produced 2½ million tons of gur (raw sugar), Bengal and Punjab about 4½ lakh tons each, and Madras, Bihar and Orissa over 3 lakh tons each.

*Tea.*—Tea is grown most largely in Assam and Bengal. About 90 per cent of the Indian production is exported.

*Cotton.*—The most important centres of cotton production are: Bombay (809,000 lbs.); Central Provinces and Berar (740,000 lbs.); Punjab (555,000 lbs.); and Madras (407,000 lbs.). In 1932-33 46 per cent of the total crop was exported, as compared with 61 per cent in the post-war period (1919-20 to 1923-24).

*Jute*.—Jute is chiefly grown in Bengal, and to a very small extent in Assam, Bihar and Orissa.

*Oilseeds*.—Linseed, rape and mustard, sesamum and castor-seed are grown in most of the major provinces. Groundnuts are most largely grown in Madras (3.5 million tons). The proportion of exports to production is shown below:

	Post-war average	1932-33
Linseed .. ..	59	18
Rape and mustard ..	19	11
Sesamum .. ..	6	2
Groundnuts .. ..	19	15

*Coffee*.—Coffee is grown in Mysore, Madras and Coorg.

*Rubber*.—Rubber is chiefly produced in Burma and Travancore. The figure for Burma fell from over 11 million lbs. in 1929 to 4½ million lbs. in 1932, and that for Travancore from 13.6 million lbs. to 1.8 million lbs.

*Indigo*.—Madras has the largest area under indigo, 46,000 acres, and next, Punjab, 9,000 acres (1932-33). The total area under indigo in India in 1932-33 was less than 60,000 acres (770,000 acres in 1917-18).

## 2. MINERAL PRODUCTION

There is no lack in India of raw materials required for the development of metallurgical industries. This fact was well known to the ancients. Nearly 300 B. C. Megasthenes wrote that India "has under-ground numerous veins of all sorts of metals, for it contains much gold and silver and copper and iron in no small quantity, and even tin and other metals which are employed in making articles of use and ornament as well as the implements and accoutrements of War."\*

\* "Industrial Handbook," published by the Indian Munitions Board, p. 123.

Writing in 1881 in the introduction to his "*Economic Geology of India*," V. Ball thus commented on the passage quoted above:—

"To many it may appear that it was a fanciful and fabulous India, very different from the country as it is now known to us. To such the facts set forth in this work not only as to the extent of the mineral resources, but also as to the extent of the ancient mining operations, will come almost as a revelation.

"Speaking generally, the value of the majority of the deposits is relative to external circumstances. Were India wholly isolated from the rest of the world, or were her mineral productions protected from competition, there cannot be the least doubt that she would be able, from within her own boundaries, to supply very nearly all the requirements, in so far as the mineral world is concerned, of a highly civilized community. But the consumer would probably have to pay more than he does at the present day."

About 1881, however, no important metallurgical industries, working on modern lines, existed in India. It was in 1885 that the Mysore Gold Company was founded. The Barker Iron Works were, indeed, established in 1875, but it was not until 1899 that the Company succeeded in producing pig iron at a profit. Thus, at the beginning of the present century, the only successful metallurgical works were the gold mining and reduction plants of Kolar and the Barker Iron Works. Great progress has, however, been made during the past 30 years. In 1903 the Hutti Gold Mines (Hyderabad State) commenced operations. In 1909 the Burma Mines, Limited, was started. The Indian Iron and Steel Company was floated in 1918 with the object of producing pig iron. In the same year the regular production of blister copper began in India.



India's mineral production in 1913, 1929 and 1931 is shown by a table given at the end of this section.

There is said to be a 'surplus' of a metal or mineral when it is exported; when home production has to be supplemented by imports, the supply is 'insufficient,' and when the production is equal to consumption, and there are neither exports nor imports, the supply is described as 'sufficient.' The statement given below classifies the principal minerals and metals under these three heads:

Insufficient	Sufficient	Surplus
Aluminium.	Ferro-manganese.	Antimony.
Arsenic.	Fuller's earth.	Chrome ore.
Asbestos.	Gypsum.	Bituminous non-coking
Barytes.	Heavy Benzine.	and coking coal and
Borates.	Talc (a magnesium	anthracite.
Brass.	silicate).	Copper matte.
China Clay.		Gold.
Coal tar and pitch.		Iron ore, pig iron and
Sulphate of ammonia.		steel.
Copper.		Pig lead.
Diamonds.		Magnesite.
Ferro alloys.		Manganese ore.
Graphite.		Mica.
Crude petroleum.		Monazite.
Petrol, including benzine and dangerous spirits.		Nickel speiss.
Kerosene.		Paraffin wax.
Fuel oil.		Saltpetre.
Lubricating oils.		Ilmenite.
Phosphates.		Tungsten.
Potash chemicals and manures.		
Quicksilver.		
Salt.		
Silver.		
Sulphur.		
Tin.		
Zinc.		

(Source: *Records of the Geological Survey of India*, Vol. LXVI, Part 4, pp. 529—32).

The total value of minerals produced in India is shown below:

				Million £.
Average 1919—23	..	..	..	25.2
1924	..	..	..	28.7
1926	..	..	..	25.8
1927	..	..	..	22.9
1928	..	..	..	21.9
1929	..	..	..	22.3
1930	..	..	..	19.3
1931	..	..	..	17.7
1932	..	..	..	15.6
1933	..	..	..	16.6

The whole of the increase in value of £3.5 millions in 1924, as compared with the average for 1919—23, was not real, being due in part to the higher average value of the rupee during that year. From 1924 to 1923 the value of the minerals produced declined steadily. In 1929 there was a slight increase in value but the decline was resumed in 1930, to be arrested in 1933. The table given below compares the prices of the principal metals and ores in 1933 with those in 1929:

AVERAGE PRICES IN THE UNITED KINGDOM OF PRINCIPAL METALS AND ORES IN 1929 AND 1933

	1929. £ per ton.	1933. £ per ton.	Percentage rise (+) or fall (-) as compared with 1929
<b>METALS—</b>			
Copper, standard ..	75.48	32.39	-57
Lead, pig, soft foreign ..	23.24	11.80	-49
Speltre, ordinary ..	24.88	15.74	-37
Tin, standard ..	203.94	194.59	-5
Pig-iron, Cleveland No. 3	3.52	3.03	-14
Steel rails .. ..	8.50	8.37	-2
Ferro-manganese ..	13.53	11.25	-17
Gold, fine, per oz. ..	84.941s.	124.802s.	+47
Silver, standard, per oz.	24.614d.	18.148d.	-26
<b>ORES—</b>			
Chromite, per ton ..	£4.296	£4.625	+8
Manganese ore, per unit	14.0d.	9.5d.	-32
Wolfram, per unit ..	29.28s.	15.42s.	-47

Attention may be drawn to the heavy fall in the price of copper, pig lead, speltre, manganese ore and wolfram, and the heavy rise in the price of gold. The price of gold on May 1, 1935, was £7.5 and of silver 34½d.

## COAL

Coal is one of our "most distressed" mineral industries, the other being manganese ore. The coal industry has grown rapidly since 1897, in which year production amounted to a little over 4 million tons. This may be compared with the peak production of 23·8 million tons (valued at £6·9 millions) in 1930. Since then both production and value have been declining. In 1933 production amounted to 19 $\frac{3}{4}$  million tons valued at £1·6 millions.

The coal industry is suffering from overproduction and the consequent heavy fall of prices. The consumption of coal in India is estimated at 18 million tons, while the producing capacity is 26·27 million tons annually. The price of coal has fallen from Rs. 12 per ton at the pithead in 1924 to less than Rs. 4.

The coal interests complain that the Government have retarded the industry by purchasing coal-bearing lands and producing coal themselves for the State-owned Railways. The use of fuel oil in place of coal, as on part of the North-Western Railway system, is also objected to. It is admitted that the Railway Board have assisted the coal industry by restricting the production of State-owned collieries, but this is not considered enough.

The embargo on the export of coal, imposed by the Government of India in July, 1920, was responsible for the loss of important overseas markets. Of these Ceylon has been recovered, but the Straits Settlements and other Eastern markets have been captured by South African coal.

The Coal Grading Board was constituted in 1925 and commenced operations in 1926. The object of this Board is to ensure that only good-sized coal is exported. The Coal Grading Act provides for the grading of seams of coal and for the grant of certificates for coal intended for export. The exports of coal fell from 685,000 tons in 1928-29 to 373,000 tons in 1933-34 and about 314,000 tons in 1934-35.

Regulated production is the way suggested out of the 'Valley of Despair' in which mine-owners at present find themselves. The industry on an average employs 165,500 workmen daily. The continued weakening of the industry would lead to an undesirable reduction of wages and salaries, and financial losses to the industry, the investing public and to Government revenues. The fall of prices, further, limits production to seams of the best quality coal, and makes it difficult to improve the methods of extraction.

The industry has asked for legislation for the control of production. The mine-owners have sought Government help because they fear that their unaided efforts to control output will not be successful. No marketing scheme will solve the difficulty, for "overproduction is the source of the disequilibrium, not distribution."<sup>1</sup>

The scheme proposed for the control of production is as follows. The average production of coal during three years, 1930—32, would be called "India's Standard Tonnage"; and the average production of each colliery during the same three years Colliery's Standard Tonnage.

<sup>1</sup> *Capital, Trade and Industries Supplement*, December, 1934, p. 50.

The consumption of coal in any year, say 1937, would be estimated in advance, and if the figure was, say, 10 per cent less than India's Standard Tonnage, every colliery (with a Standard Tonnage of more than 18,000 tons) would be required to reduce its output 10 per cent below its Standard Tonnage. The final decision as to the amount produced would be of the Governor-General in Council. No colliery shall be required to restrict its production below 18,000 tons per annum.

To safeguard the interests of the consumer it is proposed that there should be equal representation of producing and consuming interests on the Executive Committee appointed to administer the legislation. The consumer is assured that the coal industry will not abuse any powers which may be given it to control output.

Of the 19·8 million tons of coal raised in 1933, the share of Bengal was 5·7 million tons, Bihar and Orissa 11·3 million tons and the Central Provinces  $1\frac{1}{2}$  million tons. The output of the Central Provinces in 1924 was about 700,000 tons.

#### MANGANESE

The output of Manganese was 902,000 tons in 1907, and 1,129,000 tons in 1927, valued at £2·7 millions. Since 1927 both the output and its value have fallen. In 1933 the output was only 218,000 tons, valued at £123,000. These are the smallest quantities and values reported since 1901.<sup>2</sup> The quantity of the production in 1933 was a little over one-fifth of that of 1927 and the value less than one

<sup>2</sup> *Records of the Geological Survey of India*, Vol. LXVIII, Part 3, p. 277.

twenty-second part of the value of the 1927 production. No major Indian mineral industry has suffered from the effects of the collapse of prices so much as the manganese industry. The heavy fall in the price of manganese ore, from 22·9*d.* per unit in 1924 to 9·5*d.* per unit in 1933 was due to world overproduction. Russia's non-economic methods of exploitation and finance are responsible for the existing situation in this industry. While supplies have increased, demand has fallen on account of the declining production of iron and steel. The world's output of steel fell from 122 million tons in 1929 to about 63 million tons in 1931 and only 50 million tons in 1932. The output rose in 1933 to 69 million tons, which slightly raised the price of manganese in 1934.

The chief sources of production of manganese ore are India, Russia, the Gold Coast, South Africa and Brazil. The output of Egypt and Czecho-Slovakia is also appreciable.

The exports fell from the post-war (1919-20 to 1923-34) average of 648,000 tons to 266,000 tons in 1933-34, but rose to 455,000 tons in 1934-35.

*Petroleum.*—The value of petroleum (£4·7 millions) exceeded that of any other mineral produced in India in 1933. The world production of petroleum in 1933 is estimated at 198 million tons. The contribution of the United States to this total was 62·5 per cent, Russia 10·6 per cent, Venezuela 8·3 per cent, and India 0·62 per cent. The quantity produced in India was 306 million gallons. India imported 53 million gallons of kerosene in 1933-34, valued at 2½ crores of rupees.

*Gold.*—The chief centre of gold mining is Mysore (Kolar gold fields). The two deepest mines on this field have reached depths

of 7,410 and 7,334 feet (the Champion Reef and the Ooregum Mines respectively). The rock temperature at these depths is very high, 129.8 degrees F., and the maintenance of adequate ventilation at the working places is becoming a difficult problem.

*Mica.*—The reported quantity produced in 1933 was 41,000 cwts; exports exceed the output (66,000 cwts. in 1933-34). The difference is due to theft from the mines.

*Salt.*—In 1933, excluding Aden, India produced 1,404,000 tons of salt from the sea, subsoil or lakes, and 170,000 tons of rock-salt (Salt Range: 146,000 tons). Imports in 1933 amounted to 397,000 tons.

*Saltpetre.*—No figures of production are available, but exports indicate the general state of the industry, as, excepting a few hundred tons required for internal consumption as fertiliser, the whole of the output is exported. Exports increased from 134,000 tons in 1931-32 to 183,000 tons in 1933-34, but fell to 171,000 tons in 1934-35.

### MINERAL RESERVES

India's probable resources in aluminium ore are estimated at 34 million tons, and potential resources at 100 million tons.

The proved reserves of coal (Gondwana coal-fields) in 1931 were put at 5,000 million tons of good quality. The probable resources in coal are estimated at 20,000 million tons, and potential resources at 60,000 million tons in seams of over 4 feet thick at workable depths. In addition there are 6,000 million potential tons of tertiary coal in Assam.

The proved reserves of copper ore (1931) amount to about 800,000 tons, and of lead ore to over 4 million tons. The probable resources in iron ore (Hæmatite, containing



60 per cent of iron) are estimated at 3,000 million tons.<sup>3</sup>

VALUE OF THE MINERALS PRODUCED IN 1933

	£
Petroleum .. ..	4,708,000
Coal .. ..	4,600,000
Gold .. ..	2,078,000
Salt .. ..	859,000
Lead or Lead ore .. ..	851,000
Building materials .. ..	800,000
Tin ore .. ..	533,000
Silver .. ..	497,000
Copper ore and matte .. ..	392,000
Mica .. ..	303,000
Zinc concentrates .. ..	232,000
Iron ore .. ..	183,000
Manganese ore .. ..	123,000
Saltpetre .. ..	117,000
Tungsten ore .. ..	82,000
Nickel-speciss .. ..	77,000
Ilmenite .. ..	43,000
Antimonial lead .. ..	12,000
Chromite .. ..	17,000
Clays .. ..	16,000
Scatite .. ..	14,000
Jadeite .. ..	13,500
<b>TOTAL*</b> .. ..	<b>16,618,000</b>

\* Includes the following other minerals : refractory materials ; magnesite ; ruby, sapphire and spinel ; Fuller's earth ; Monazite ; gypsum ; diamonds ; ochres ; barytes ; zircon ; beryl ; felspar ; bauxite ; garnet ; amber ; apatite ; and bismuth.

(Records of Geological Survey, Vol. LXVIII, Part 3, p. 253.)

<sup>3</sup> Records of the Geological Survey of India, Vol. LXVI, Part 4, p. 476.

## MINERAL PRODUCTION (QUANTITIES)

	1913	1929	1931
<b>ORES AND MINERALS:</b>			
Coal, tons ..	16,208,000	23,419,000	21,716,000
Copper ore, tons ..	3,810	76,836	153,636
Diamonds, carats ..	116	1,627	639
Gypsum, tons ..	24,961	52,726	53,632
Iron ore, tons ..	370,845	2,428,555	1,624,900
Lead ore, tons ..	20,325	464,696	397,679
Magnesite, tons ..	16,198	23,497	5,333
Petroleum, Crude, gals.	277,555,000	306,148,000	305,019,000
Petrol, including benzine and dangerous spirits, gals. ..	..	21,241,800	22,553,900
Kerosene, gals. ..	..	141,119,600	147,550,000
Burning oil, gals. ..	..	11,648,800	15,297,000
Fuel oil, gals. ..	..	5,567,600	14,593,991
Pitch, gals. ..	..	102,000	9,810
Heavy benzine, gals. ..	..	52,538,400	41,263,500
Wax, tons ..	..	77,700	49,397
Residua, tons ..	..	11,919,000	24,259,863
Batching and lubri- cating oil, tons ..	..	8,696,000	9,192,800
Other sorts, tons ..	..	5,387,000	5,977,000
Grease, lbs. ..	..	..	29,350
Salt (excluding A den), Rock, tons	161,183	178,000	161,900
Salt, sea, subsoil and lake salt, tons	1,138,000	1,284,500	1,391,400
Tin ore, tons ..	171	3,784	2,560
Tungsten minerals, tons	1,688	1,068	969
Zinc ore, tons ..	3,871	58,400	51,455

METALS:

Copper, refined, tons	}	1,635	4,069
		512	
Copper-matte, tons	}	11,303	13,437
		595,761	363,869
Gold, fine, oz. ..		1,391,541	1,058,300
Pig-iron, tons ..		410,923	439,134
Steel, tons ..		43,598	60,971
Castings,* tons ..		3,630	14,336
Ferro-manganese ..		79,033	73,280
Lead, tons ..		5,858	5,923,005
Silver, fine, oz. ..		7,298,327	..
Tin, cwts. ..		3,650	..

(Source: *Records of Geological Survey*, Vol. LXVI, Part 4.)

### 3. MANUFACTURING INDUSTRIES

The industrial backwardness of India† is due to several causes, among which the neglect of applied science, the

\* Made from pig-iron and therefore not additional figures.

† The Indian Industrial Commission (1916-18), thus described the deficiencies in the production of articles:—

"The blanks in our industrial catalogue are of a kind most surprising to one familiar only with European conditions. We have already alluded generally to the basic deficiencies in our iron and steel industries, and have explained how, as a result of these, the many excellent engineering shops in India are mainly devoted to repair work, or to the manufacture, hitherto mainly from imported materials, of comparatively simple structures, such as roofs and bridges, wagons and tanks. India can build a small marine engine and turn out a locomotive, provided certain essential parts are obtained from abroad, but she has not a machine to make nails or screws, nor can she manufacture some of the essential parts of electrical machinery. Electrical plant and equipment are still, therefore, all imported, in spite of the fact that incandescent lamps are used by the million and electric fans by tens of thousands. India relies on foreign supplies for steel springs and iron chains, and for wire ropes, a vital necessity of her mining industry. We have already pointed out the absence of any manufacture of textile machinery, and with a few exceptions, even of textile-mill accessories. The same may be said of the equipment of nearly all industrial concerns. The

*laissez faire* policy of the Government in the past, and the shyness of Indian capital for modern enterprises may be specially mentioned. As is well known, one of the most important causes of Germany's industrial leadership is her zeal for scientific studies and the application of science to practical problems. In India, till recently, the study of science occupied a very minor place in the educational system. The education imparted in our schools and universities is still mainly of a literary type, which accounts for the utter lack in India of scientific and business experts who could help in the organisation of industries and who have, therefore, to be imported. Again, as we have seen, in industrial matters, the Government in the past, with

list of deficiencies includes all kinds of machine tools, steam engines, boilers, oil and gas engines, hydraulic presses and heavy cranes. Simple lathes, small sugar mills, small pumps and a variety of odds and ends are made in some shops, but the basis of their manufacture and the limited scale of production do not enable them to compete with imported goods of similar character to the extent of excluding the latter. Agriculturists' and planters' tools such as ploughs, *mamooties*, spades, shovels and pickaxes are mainly imported, as well as the hand tools of improved character used in most cottage industries, including wood-working tools, healds and reeds, shuttles and pickers. Bicycles, motor cycles and motor cars cannot at present be made in India, though the imports under these heads were valued at Rs. 187 lakhs in 1913-14 [360 lakhs in 1934-35]. The manufacture of common glass is carried on in various localities, and some works have turned out ordinary domestic utensils and bottles of fair quality, but no attempts have been made to produce plate or sheet glass, while optical glass manufacture has never even been mooted. The extent of our dependence on imported glass is evidenced by the fact that in 1913-14 this was valued at Rs. 164 lakhs [123 lakhs in 1934-35]. Porcelain insulators, good enough for low tension currents, are manufactured, but India does not produce the higher qualities of either porcelain or china. Attention has been directed to the building of steel ships, but until the local supply of steel has been greatly increased, it is more than doubtful if expectations in this direction can be realised, and it is probable that there are other ways in which our present relatively small supplies of Indian steel can be quickly and more profitably utilised." (Report, 55).

few exceptions, followed a 'let alone' policy. "The political and economic conditions of India," wrote the Industrial Commission, "have created a large export and import trade, and this trade has brought about the present industrial position.\* Unrestricted freedom of importation is responsible in no small measure for the industrial backwardness of India. It largely explains the shyness of Indian capital for modern enterprises. There was never any serious lack of capital in India, but Indian capital was chiefly invested in agriculture and a few manufacturing industries, as jute and cotton. Profits in most of the industries affected by foreign competition were very uncertain, and Indian capital avoided these industries. Lastly, in the purchase of Government stores very little advantage was taken of the rules intended to encourage the purchase of locally manufactured articles, and Government Departments generally indented on the India Office for their requirements.

The War forced the Government of India to direct their attention to the question of developing Indian industries. The unprecedented shrinkage of imports made the country realise, as it had never realised before, the terrible consequences of too great dependence upon other countries for the supply of things essential in peace and war. The Industrial Commission emphasized the danger of industrial deficiencies in the following words:—

"The list of industries which, though their products are essential alike in peace and war, are lacking in this country is lengthy and almost ominous. Until they are brought into existence on an adequate scale, Indian capitalists will, in times of peace, be deprived

\* Report, 49.

of a number of profitable enterprises, whilst in the event of a war which renders sea transport impossible, India's all important existing industries will be exposed to the risk of stoppage, her consumers to great hardship, and her armed forces to the gravest possible danger."\*

Every effort was made by the Government during the War to develop industries whose products were required, directly or indirectly, for war purposes. The Indian Munitions Board was established in February, 1917. The functions of the Board were "to control and develop Indian resources with special reference to the needs created by the War,—to limit and co-ordinate demands for articles not manufactured or produced in India, and to apply the manufacturing resources of India to War purposes with the special object of reducing demands on shipping." The primary object of the Munitions Board was to meet the demands of the armies operating in Mesopotamia, but it helped very materially in the development of Indian industries by purchasing in India articles and materials needed for the civil and military departments and for the railways; by diverting, so far as it was practicable, orders for articles and materials from the United Kingdom to manufacturers in India; by giving assistance to individuals and firms who desired to import plant or to engage technical and chemical experts and skilled labour from England or elsewhere in order to establish new industries or develop old ones; and by the dissemination of information and expert advice and the giving of other direct or indirect encouragement to persons prepared to establish new

\* *Report*, pp. 55-56.

industries in India. During the 18 months, from 1st April, 1917, to the end of September, 1918, the Board spent 34 crores of rupees. The stores were purchased by the Board mainly from Indian firms.

The Munitions Board paid special attention to the encouragement of 'key' industries. For example, some of the accessories used by the milling industries in India, such as roller skins, pickers, sheep skins for rice-polishing, belting, etc., are now made in India. Other industries to which considerable attention was paid were the manufacture of anti-friction metal, ferro-manganese, glass, pottery, refractory bricks, disinfecting fluids, tea-pruning knives, tea chests, asbestos, boiler composition, glucose, coir articles and graphite crucibles.

Apart from action taken by the Government to encourage Indian industries, the rise of prices caused by the heavy decrease in all kinds of imports gave a great stimulus to Indian manufacturing enterprise. Attempt was made by manufacturers to fill the gap caused by the shrinkage of imports. Old industries were strengthened and enlarged and new industries were established. But for certain causes, arising out of our pre-War industrial weakness, the growth of industries during the War would have been even more rapid than it was. These causes were: (1) the difficulty of importing machinery and materials such as are not made in India; (2) the shortage of coal and coking plant and the shortage of railway wagons and coasting vessels; (3) the difficulty of procuring from abroad chemical and technical experts and (4) the shortage of skilled labour.

India's fiscal policy was examined by the Fiscal Commission of 1921-22. The report of the Commission was not unanimous, the minority recommending 'Protection' and the majority 'Protection applied with discrimination.' The difference between the two points of view, for all practical purposes, is slight, for protection must always be applied with discrimination. A Tariff Board was constituted in accordance with the recommendations of the Fiscal Commission. In dealing with claims for protection the Tariff Board has to satisfy itself (a) that the industry possesses natural advantages, (b) that without the help of protection it is not likely to develop at all, or not so rapidly as is desirable, and (c) that it will eventually be able to face world competition without protection.

The chief objects of the Commission in recommending the adoption of a policy of discriminating protection was to reduce the burden which protection inevitably imposes upon the consumer, to prevent the establishment of unsuitable industries (which might be the result if all kinds of industries were indiscriminately protected), and to minimise the effect of protection on the balance of trade, or to maintain a favourable balance of trade.

### IRON AND STEEL

The first fruit of the labours of the Tariff Board was Act No. XIV of 1924 to provide for the fostering and development of the steel industry in British India. The Act authorised the Governor-General in Council to give bounties on steel rails and fishplates and on railway wagons to companies producing these articles, registered under the



Indian Companies Act of 1913, with a rupee capital, and having a certain proportion of Indian Directors, and imposed duties of 30 to 40 per cent on imported iron and steel according to the stage of manufacture of the imported article, and the requirements of the Indian industry. Protection in the first instance was granted for a period of three years, until the end of March, 1927. The rise in the rupee exchange after the passing of the Act and the continued depression in the steel industry in European countries led to two further enquiries by the Tariff Board in 1924 and 1925. The Tariff Board recommended the grant of bounties on the production of steel ingots subject to a maximum of 50 lakhs for the year ending 30th September, 1925, and 60 lakhs for the eighteen months ending 31st March, 1927.

The situation was re-examined by the Tariff Board in 1926. It recommended the continuance of protection for a period of 7 years, that is until 1933-34. The system of bounties was discontinued on the ground that it was likely to prove very costly. The production of the Indian steel industry was increasing, and it was doubtful whether the revenue from the protective duties would be sufficient to cover the cost of the bounties. Further, an element of preference was introduced in the duties levied on imported iron and steel. Two scales of duty were adopted—"basic duty" and "additional duty." The "basic duty" was fixed with reference to the price of steel imported from the United Kingdom. All steel imported into India, whether from the United Kingdom or the Continent of Europe pays the "basic duty." Continental steel also pays the "addi-

tional duty," which is based on the difference between the prices of British and Continental steel, making allowance for the difference of quality between the two.

### THE STEEL INDUSTRY, 1926-1933

The progress of the steel industry between 1926 and 1933 was satisfactory. The output averaged 404,000 tons in this period and amounted to 427,000 tons in 1932-33. In the year 1927-28 the Company's output was 429,000 tons and its share of the available market (*i.e.*, of the consumption of products similar to its own) was 30 per cent; in 1932-33 the proportion rose to 72 per cent—which means that the whole of the fall in demand in this period was borne by imported steel. The imports of iron or steel fell from over 900,000 tons in 1927-28 and 1928-29 to 237,000 tons in 1932-33. They rose to 244,000 tons in 1933-34 and about 275,000 tons in 1934-35.

Between 1926 and 1933 the Tata Company maintained an output roughly equivalent to 75 per cent of their capacity. "This is no small achievement," as the Tariff Board said in its report on the iron and steel industry (1934). "Few steel industries in the world have been able to maintain such an output."<sup>4</sup>

The Tariff Board found that no protective duties were required by the following articles: rails and fishplates, structurals (tested) and plates (tested) of British manufacture, semi-finished steel and steel sleepers. In the case of

rails and fishplates the Tariff Board considered that the best means of assisting the industry was to ensure that the requirements of Indian railways were purchased in India up to the total capacity of the Indian industry at the fair selling prices estimated by the Tariff Board. Excepting the articles mentioned, which required no protective duty, the Board recommended specific duties on imported steel products at rates varying from Rs. 10 to Rs. 43 per ton. The present duties are preferential like the old duties. The Tariff Board received no complaints regarding the working of the preferential or differential system of duties. As in the old scheme, in the new scheme of protection duties are so calculated as to give the British manufacturer a definite advantage as compared with the Continental manufacturer, consistently with the interests of the Indian industry. As an example, bars (tested) of British manufacture pay a duty of Rs. 10 per ton and bars (untested), not of British manufacture, a duty of Rs. 39 per ton.

The new scheme of protection will continue in force till 31st March, 1941.

The need for heavy protection against Continental steel arises from the low prices at which it would otherwise be sold. Continental steel, which competes with the products of the Indian industry, is sold through an international organisation which, in fixing its prices, takes account of the local conditions of each market, and not necessarily of the expenses of production. Thus Continental steel may be sold in India at prices below cost of production. It is for this reason that the Tariff Board regarded the measure of protection which it proposed "as in the nature of an anti-

dumping provision rather than as a measure of substantive protection.”<sup>5</sup>

The question naturally arises whether protection would continue indefinitely. One of the conditions for the grant of protection laid down by the Indian Fiscal Commission (as we have seen) is that the industry should be eventually able to face world competition without protection. Will the Indian steel industry be able to dispense with protection eventually? The question was answered in the affirmative by the Tariff Board in 1923. The Tariff Board described India's natural advantages in the production of steel and expressed its belief that “it will not be long before the initial difficulties are overcome, and steel is produced at a cost low enough to enable it to face outside competition in India without protection” (para 28).

The Tariff Board in 1934 remained of the same opinion. It was satisfied that if full economic prices, including all commercial charges, were quoted for Continental steel sold in India, the Indian industry could dispense with protection (para 192). As compared with France, Belgium and Luxemburg, India enjoys an advantage of Rs. 8 per ton in the production of pig iron. These countries, however, have an advantage over India in making steel from pig iron, which is due to the employment of the basic Bessemer process. This process is inapplicable in India on account of the low phosphorous content of Indian pig iron, but the advantage of the Continent does not exceed Rs. 5 per ton, so that the low cost of our pig iron may be set off against

<sup>5</sup> Para 68 of the *Report of the Tariff Board on the Steel Industry* (1934).

the economies arising from the use of the basic Bessemer process on the Continent. India, then, is under no handicap as compared with Continental countries in the manufacture of steel. But Continental competition is not fair. The Tariff Board hopes that if Continental prices rise to a more economical level, the Indian industry "will, within the next seven years, substantially approach the stage of being able to dispense with protection" (para 63).

This is a consoling thought. It is not improbable that at the end of the second period of protection we shall again discover that Continental prices are uneconomical. At the end of each successive period of protection our industry will probably continue to "substantially approach the stage of being able to dispense with protection" without being actually able to dispense with it.

The steel industry is of national importance and it deserves protection on this ground. And protection has come to stay.

#### COST TO CONSUMER

What is the cost of protection to the consumer? The total additional revenue derived by Government from protective duties on steel between 1924-25 and 1932-33 was Rs. 9,82 lakhs. The benefit derived by the Tata Company from protective duties only (exclusive of State bounties amounting to Rs. 208.8 lakhs paid from the increased revenue) is estimated at Rs. 4,46 lakhs. Adding to this Rs. 9,82 lakhs of increased revenue, we get the figure of 14,28 lakhs which, according to the Tariff Board, represents

“the gross cost of protection to the consumer,” that is “the sum of the additional prices paid for imported steel and Indian steel” (para 36).

The meaning of the Tariff Board is not clear. The Tariff Board seems to have assumed that the gain to the Government and the Tata Company from the protective duties is equal to the loss suffered by the consumer. There is no justification for that assumption.

The consumer is a loser in a double sense; first, in so far as he has to pay higher prices, and second, in so far as the higher prices are a cause of contraction of demand. In neither of these two cases is any exact measurement of the consumer's loss possible.

There is no question that without preference and protection prices would have been lower, but we have no means of determining their exact level under free international competition.

Let us take galvanized iron sheets as an example. The price fixed under the Ottawa Agreement was Rs. 215 per ton, but it was not a competitive price. The loss to the consumer in this case would be measured by the excess of the price that he has actually paid (about Rs. 220) over the competitive price, which is not known.

Secondly, the consumer has lost on account of the restriction of demand due to the high price. We know that consumption in 1932-33 was about one-third of that in 1927-28. Assuming that a certain percentage of the decrease in consumption was directly due to the rise of price, the conversion of this loss into precise monetary terms is a difficult matter.

It deserves to be clearly stated that when a country adopts protection, the loss to the consumer is not necessarily equal to the amount of the protective duty multiplied by the quantity of protected material produced and imported, for the actual price may rise by an amount greater than the protective duty on account of middlemen's charges and combination among producers. Further, the tendency towards lower prices on account of the growth of production and the increasing intensity of international competition cannot be ignored.

#### FIG IRON AND THE OTTAWA AGREEMENT

The Ottawa Agreement provided for the free admission of Indian pig iron into the United Kingdom, subject to an arrangement for preferential treatment of galvanized sheets imported into India. Further, there was an agreement between the Tata Company and the Oriental Steel Company (representing British producers) according to which British manufacturers undertook to use Indian steel for the manufacture of sheets for India subject to a minimum of 7,000 tons a month. The preferential treatment of British galvanized sheets is to continue, for the scheme of protection proposed by the Tariff Board provides for the taxation of galvanized sheets of British manufacture at Rs. 10 per ton and of non-British manufacture at Rs. 40 per ton.

To what extent has this preferential arrangement benefited India and the United Kingdom?

The gain to the United Kingdom is substantial. Her share in the imports of galvanized sheets was about 71 per

cent of the total in 1932-33, 87 per cent in 1933-34 and about 90 per cent in 1934-35. The value of British imports rose from 87 lakhs in 1932-33 to 98 lakhs in 1933-34 and over 1 crore in 1934-35. With the help of the preference British galvanized sheets are driving those of Belgium out of our market. Imports from Belgium fell from about 33 lakhs in 1932-33 to 9 lakhs in 1933-34 and 3 lakhs in 1934-35.

The cost of this preference is paid by the Indian consumer—galvanized sheets are of particular importance to the agricultural community. Prices would certainly be lower if Continental and British sheets competed in India on equal terms. The Tariff Board calls the price which was to be maintained under the Ottawa Agreement (Rs. 215 per ton) an “artificial” price and complains that no direct information is available regarding the level of market prices under ordinary competitive conditions (para 107). Further, the average price in the first six months of 1933 was nearly Rs. 220. “In view of the obligation of the industry to maintain a price of Rs. 215,” asks the Tariff Board, “what is the explanation of this rise and apparent neglect of the consumer’s interests?” The rise of three rupees is accounted for by increase in the price of spelter. But there is an unexplained balance varying from Rs. 2 to Rs. 7. “The fact remains,” writes the Tariff Board, “that prices substantially higher than Rs. 218 have been effective in the market and, so far as we know, no action has been taken by Government, as suggested in paragraph 84 of the Report of the Ottawa Delegation, to control the rise” (para 30).



One of the advantages offered to India in return for the preferential duties on galvanized sheets under the Ottawa Agreement was the free import into the United Kingdom of 30,000 tons per annum of Indian foundry iron and a minimum of 70,000 tons per annum of basic pig (incidentally it may be noted that the Tata Company has received "friendly" notice from the industry in the United Kingdom that it desires to re-consider the terms of the agreement in regard to pig iron, on the expiry of the six months' notice). If the agreement leads to an expansion of our exports of pig iron to the United Kingdom, the preference will be of some value to us. We enjoy great advantages for the manufacture of pig iron. The iron ore deposits in Singhbhum and the Orissa States are of high quality, being rich in iron content. The supply of coal is abundant, and the iron ore and the coal are found near each other, so that the rail freight does not make a large addition to the cost. India started exporting pig iron in 1921-22, and exports rapidly rose from 59,000 tons in that year to 568,000 tons in 1929-30. Our principal customer was Japan, who took 350,000 tons in that year. But since 1929-30 Japan's purchases have seriously diminished. The Indian delegation to Ottawa were concerned about this, particularly because they had reasons to believe that in future Japanese requirements were likely to be supplied from the blast furnaces already in existence in Manchuria, or from furnaces in Japan itself. "It follows," says the Report of the Ottawa Delegation "that if India's production of pig iron is not to suffer a heavy reduction, enlarged outlets for

Indian pig iron must be sought in other directions" (para 71).

Has preference provided "enlarged outlets" for Indian pig iron? The exports of pig iron during the past six years are shown below:—

EXPORTS OF PIG IRON FROM INDIA IN 1,000 TONS			
	To U.K.	To Japan.	Total exports.
1929-30	.. 71	350	569
1930-31	.. 99	261	439
1931-32	.. 69	188	351
1932-33	.. 76	71	218
1933-34	.. 93	184	378
1934-35	.. 98	246	417

The arrangement regarding the free import of Indian pig iron into the United Kingdom came into force from November, 1932. The figures given above show that exports to Japan in 1934-35 were much more than double the quantity exported to the United Kingdom. The present purchases of pig iron by the United Kingdom do not encourage one to think that the United Kingdom will provide the outlets for our surplus pig iron which Japan does not want. The advantage of preference to India in this respect is so small as to be negligible.

Another advantage offered to India in return for the preferential duties on British galvanized sheets was the provision of a definite market in the United Kingdom for

Indian sheet bar. The Indian Delegation to Ottawa laid much stress on this. One of the "primary objects" of the preferential scheme was "the securing of a fresh outlet for Indian steel." And thus Indian steel was sent across the oceans to the United Kingdom to be turned into sheet for the Indian market, and it came back to us in this form. The whole business was uneconomical. At any rate, at present the Indian industry, as the Tariff Board tells us, does not require this particular outlet for its steel; moreover, the Tariff Board's recommendations for protective duties will make it impracticable for the Indian industry to send Indian sheet bar to the United Kingdom and sell the converted product at a profit. This arrangement will thus come to an end and "the reciprocal benefit to India" in return for the preferential treatment of British galvanized sheets will be limited to the free sale of 70,000 tons of pig iron in the United Kingdom—the quantity may be reduced when the terms of the old agreement are revised.

#### ROOM FOR ANOTHER STEEL WORKS

The consumption of protected steel in 1929-30 was 1,073,000 tons (of which protected imports amounted to 553,000 tons), and the Tariff Board took this figure as representing India's normal demand for protected steel. Tata's maximum output is estimated at 650,000 tons, which leaves over 400,000 tons as the extent of the protected market available for a second steel works. "Without being rash enough to prophesy," wrote the Tariff Board, "we may reasonably hold this view that there is room for another steel works, and that the success of the Tata Com-

pany should be sufficient to encourage the establishment of another."<sup>6</sup> A contrary view is taken in an article entitled "*Future of Indian Iron and Steel Industry*" in the "*Capital*" (*Indian Industries, Trade and Transport Supplement*) for December, 1934. It is admitted that a considerable amount of extra production is available for manufacturers, but it is maintained that difficulties in regard to commercial distribution are insuperable. The future development of the steel industry and the growth of other big steel works depend on the ability of the industry to economically distribute its output—very heavy reduction of railway rates will be necessary in order to enable steel products to meet competition in the most distant parts of the country.

But there is plenty of room for small works rolling from billets or scraps and confining themselves to a narrow range of products. Such small works are now springing up all over the country. There are two or three in Cawnpore, and others are working at Hathras, Agra, Ghaziabad, Allahabad, Lahore, Bombay, Benares, Calcutta and Negapatam.

#### LABOUR AT JAMSHEDPUR

The Tariff Board was satisfied with the arrangements made by the Tata Company for the welfare of labour. Jamshednagar possesses an up-to-date hospital, a Technical Institute, an Apprentice School, a High School, two Middle English Schools and 32 Primary Schools. A welfare

<sup>6</sup> Report, 1934, p. 13.

Department was organised in 1929.\* In January, 1929, a scheme was introduced for granting maternity benefits to women workers; compensation for injuries received in the works is granted by the Company on a more generous scale than provided for in the Workmen's Compensation Act. Jamshednagar also possesses 25 Co-operative Credit Societies. First aid arrangements are adequate.

Since the grant of protection the Company has been steadily pursuing a policy of Indianisation. While considerable economy has been effected, efficiency has been maintained.

The number of employees on the Company's pay roll is about 24,000.

### THE COTTON MILL INDUSTRY

In the pre-War year 1913-14, the imports of foreign piece goods into India amounted to 3,197 million yards, of which 3,104 million yards, or 97 per cent represented

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\* "Space does not permit here to assess adequately the infinite attention, care and forethought which have gone into the planning of the beautiful garden town of Jamshedpur and its environment where there are no slums, "busti" and no plague-spots such as mar many industrial towns of the West and the older towns of India. And what is more, the Steel Company has assumed the entire responsibility from the very beginning for proper administration of all its civic functions and obligations with courage and determination. Housing, health, sanitation, medical relief, education, recreation and social welfare on modern scientific lines all come in for a due measure of generous attention. Inside the Works, the adoption of an eight-hour day, the provision of liberal service rules, production bonus, provident fund benefits, safeguards against accidents, establishment of canteens and maintenance of proper working conditions have contributed materially to reduction of industrial fatigue, accidents and illness, and to promotion of general improvement in morale and efficiency. Thus has the tempo of modern industrialism in India been set by the Tata Steel Works." (*Capital, Trade and Industries Supplement*, 1933, p. 50.)

British imports. The heavy decline in imports during the War and in the years immediately following the War, and the revival of trade in subsequent years are shown by the following statement:—

IMPORTS OF COTTON PIECE GOODS INTO INDIA IN MILLION YARDS

	From United Kingdom	From Japan	Total (including other countries)
1913-14 ..	3,104	9	3,197
Average 1909-10 to 1913-14	2,563	3	2,631
Average 1914-15 to 1918-19	1,702	97	1,840
Average 1919-20 to 1923-24	1,199	113	1,351
1924-25 ..	1,613	155	1,823
1925-26 ..	1,286	216	1,563
1926-27 ..	1,466	243	1,737
1927-28 ..	1,541	321	1,973

It will be seen that imports from the United Kingdom in 1927-28 were a little less than half of imports in 1913-14. The steady increase in imports from Japan will also be noted.

Japanese imports, however, are small in amount. A far more formidable rival of Lancashire is the Indian cotton mill industry.

The progress of the Indian cotton mill industry since 1898-99 is shown by the following statement:—

PROGRESS OF THE COTTON MILL INDUSTRY

Year ending June 30.	Number of mills working	Number of spindles	Number of looms	Number of spindles to looms
1898-99 ..	167	4,549,791	38,155	119
1912-13 ..	236	6,320,028	92,487	68
Year ending August 31.				
1917-18 ..	249	6,562,637	115,818	56
1920-21 ..	245	6,845,824	123,544	55
1924-25 ..	275	8,093,801	148,612	55
1931-32 ..	317	8,908,330	173,551	51

PRODUCTION

Year ending 31st March	Mill produc- tion of yarn in million lbs.	Mill produc- tion of cloth in million lbs.	Exports of yarn in million lbs.	Percentage of exports of yarn to total pro- duction.	Exports of cloth in million yards
1899-1900	514	102	244	47.4	112
1913-14	683	274	207	30.3	130
Year ending 31st August					
1918-19	615	349	73	11.7	187
1921-22	693	403	88	12.6	187
1925-26	686	465	32	4.7	165
1926-27	807	538	42	5.2	197
1927-28	803	567	25	3.1	168
1931-32	966	672	22	2.3	105

It will be seen that the industry had made considerable progress before the War. This is shown particularly by the increase in the number of looms in 1912-13 as com-

pared with 1898-99. At the beginning of the pre-War period (1898-99 to 1912-13), the industry was essentially a spinning industry (a little less than half of the total yarn produced was exported). In 1912-13 the number of spindles to looms had fallen from 119 to 63, while the production of cloth increased from 102 million lbs. in 1899-1900 to 274 million lbs. in 1913-14.

The imports of yarn from 1899-1900 to the outbreak of the War remained fairly constant. The bulk of the imports came from the United Kingdom, the proportion of imports from that country to total imports in 1913-14 being 86 per cent.

The imports of piece goods rapidly increased in the two or three years preceding the War, and amounted to 3,197 million yards in 1913-14. The proportion of Indian mill production to imports increased steadily from 19 per cent in 1899-1900 to 36 per cent in 1913-14.

During the War-period (1914-15 to 1918-19) the number of mills as well as the number of spindles practically remained stationary but the number of looms increased by 25 per cent. The exports of yarn, after rising to 178 million lbs. in 1916-17, fell to 73 million lbs. in 1918-19. This was chiefly due to the competition of Chinese and Japanese yarn in the Chinese market. But a contributing cause was the neglect of the foreign market owing to the large profits which could be made locally.

The three years immediately following the close of the War were a period of great prosperity for the mill industry. All mills were working to their full capacity and there was a marked increase in the production of yarn and



cloth. The capital investment in the industry almost doubled between 1917-18 and 1921-22, the figures being 20.84 and 40.98 crores of rupees respectively. High profits were earned in Bombay and elsewhere. The percentage of dividends to paid-up capital in the case of Bombay mills was 40.1, 35.2 and 30.0 in 1919, 1920 and 1921 respectively. The boom was followed by the inevitable depression. Stocks of yarn as well as cloth increased, and the attempt to force down wages led to strikes. The net profit fell from 388 lakhs in 1922 to 33 lakhs in 1923 and became a loss of 92 lakhs in 1924 and 134 lakhs in 1925. Of 59 mills in Bombay for which information is available, 43 worked at a loss in 1925.

The lowest point of the depression was reached in Ahmedabad in 1923, in which year there was a strike of over 2 months' duration in that place. On the whole Ahmedabad mills fared somewhat better during the period of depression than the Bombay mills. In other parts of India conditions approximated more closely to those in Ahmedabad than to those in Bombay.

A demand for protection was made by the industry in 1926. An inquiry was made by the Tariff Board, and by a majority the Board recommended an increase in the existing 11 per cent duty on all cotton manufactures other than yarn, and the grant of a bounty on spinning yarn of counts 32s and above. Both proposals were rejected by the Government.

It was, however, established by the Tariff Board that on account of inferior labour conditions in Japan, there was an element of unfairness in Japanese competition, and

that the stabilisation of exchange at 1s. 6d. undoubtedly imposed a handicap on the Indian industry.

The history of the cotton mill industry since 1930 is eventful. The Cotton Textile Industry (Protection) Act of 1930 granted protection to the industry, which was extended in 1933. A British Textile Mission, representing the Lancashire cotton industry, visited India in 1933, and the Bombay Mill-owners' Association concluded an agreement with Lancashire, which is known as the Mody-Lees Agreement. In January, 1934, a Trade Agreement was concluded with Japan.

These years have seen a rapid expansion of the mill production of cloth. The cotton mill industry has materially benefited by the heavy protection granted to it, and by the swadeshi movement, which assumed the form of a boycott of foreign cloth in 1930-32. The mill production of cloth in certain years is shown below:

Year ending 31st March.	Cloth made in Indian Mills, in million yards		
1900-01	..	..	.. 422
1913-14	..	..	.. 1,164
1917-18	..	..	.. 1,614
1921-22	..	..	.. 1,732
1928-29	..	..	.. 1,893
1929-30	..	..	.. 2,419
1931-32	..	..	.. 2,990
1932-33	..	..	.. 3,170

At the present time Indian mills are producing on the basis of 3,500 million yards per annum. The imports of cloth amounted to 1,225 million yards in 1932-33, 796 million yards in 1933-34 and 944 million yards in 1934-35. Taking the production of the hand-loom industry to be about 1,500 million yards, the total consumption of cotton cloth in India at the present time may be estimated at about 6,000 million yards, of which less than one-sixth is met by imports. India is practically self-sufficient in regard to cotton goods, and can easily dispense with imports from Lancashire.

The chief points of the Mody-Lees Agreement of 1933 were the following:

(a) When it becomes possible for the Government of India to remove the general sur-charge on all imports imposed in October, 1931, the Indian side will not make fresh proposals with regard to duties on British cloth.

(b) Further efforts will be made to popularise and promote the use of Indian cotton in Lancashire.

It was expected that the 25 per cent sur-charge on import duty would be removed in the budget for 1935-36, but the budget contained no such proposal. Lancashire is getting impatient and pressing for a reduction of duty. Exports of Indian Cotton to the United Kingdom amounted to 62,000 tons in 1934-35 as compared with 29,846 tons in 1932-33, and 29,723 tons in 1931-32. Exports of cotton to Japan amounted to 359,000 tons in 1934-35.

The salient features of the Indo-Japanese Trade Agreement are the following:

1. The import duty of 75 per cent *ad valorem* or 6 3/4 annas per lb. on plain grey goods imported from Japan has been reduced to 50 per cent or 5 1/4 annas per lb., and on other cotton piece goods from 75 per cent *ad valorem* to 50 per cent *ad valorem*.

2. Imports of Japanese cotton goods have been linked with Japan's purchases of Indian cotton:

(a) Imports of Japanese cotton goods are in no case to exceed 400 million yards. This is Japan's fixed quota.

(b) For 1 million bales of Indian raw cotton purchased by Japan in a Cotton Year (beginning 1st January) Japan may send us 325 million yards of cotton piece goods in the corresponding Piece-goods Year (beginning 1st April). This is the basic quota of Japanese piece goods.

(c) Should Japan buy less than 1 million bales of Indian cotton in any Cotton Year, the quota of Japanese piece goods for the corresponding Piece-goods Year shall be determined by reducing the basic quota at the rate of 2 million yards of cloth for every 10,000 bales of deficit.

(d) In case Japan's purchases of our raw cotton exceed 1 million bales, Japan's quota shall be determined by increasing the basic quota at the rate of 1½ million yards for every additional 10,000 bales, provided that the quota shall not exceed 400 million yards.

(e) In respect of both cotton piece goods and raw cotton, re-exported quantity shall be deducted from the imported quantity.

The imports of cotton piece goods from Japan and the United Kingdom in 1933-34 (first quota year for Japan) are shown below:

		MILLION YARDS	
		Japan.	United Kingdom.
Grey unbleached	.. ..	141.6	88.2
White bleached	.. ..	75.2	134.2
Coloured, printed or dyed	.. ..	124.1	142.4
Fents	.. ..	8.2	11.1
Total, 1933-34	.. ..	349.1	425.9
Total, 1934-35	.. ..	374	552

The imports from Japan fell short of her maximum quota, 400 million yards.

### THE SUGAR INDUSTRY

The amount of capital invested in this industry is estimated at about 20 crores of rupees. In 1933-34 the total production of sugar was 779,600 tons, of which 459,600 tons were manufactured direct from cane, 95,000 tons were refined from *gur*, and 225,000 tons were produced by the *khandsari* method. *Khandsari* is an inefficient method of producing crystalline sugar of comparatively poor quantity by boiling cane-juice in open pans. The import of Java Sugar in 1934-35 amounted to 223,000 tons, valued at 2,11 lakhs of rupees (937,000 tons imported in 1928-29,

valued at 16 crores of rupees). The number of factories working in 1933-34 was 130. Estimated production in 1934-35 and 1935-36 is given below:

	1934-35	1935-36
Number of factories ..	145	155
Quantity of sugar manufactured from cane, tons	709,000	875,000
Quantity refined from gur, tons ..	60,000	50,000
<i>Khandsari</i> sugar, tons ..	200,000	175,000
TOTAL ..	<u>969,000</u>	<u>1,100,000</u>

In a year or two India will become entirely self-sufficient in regard to sugar.

It is interesting to note that only a comparatively insignificant proportion of the total cane produced is used for the factory production of sugar:

#### ESTIMATED ABSORPTION OF CANE IN 1927-28

	Tons.
For gur manufacture ..	25,450,000
„ sets ..	700,000
„ chewing ..	4,500,000
Used in modern sugar factories ..	750,000
For <i>khandsari</i> manufacture ..	3,800,000
TOTAL ..	<u>35,200,000</u>

The proportion of cane crushed in factories to the total was a little over 2 per cent in 1927-28. Even in 1933-34 this proportion was only about 10 per cent. The cane

crushed in all factories was about 5,200,000 tons out of a total crop of 55,000,000 tons.<sup>7</sup>

Attempt is being made to create a Single Sugar Selling Organisation with the object of raising the price of sugar. The price of sugar in India is no longer governed by that of imported sugar; it is determined by internal competition. "Indian sugar," says Mr. M. P. Gandhi (Secretary of the Indian Sugar Mills Association) "can easily sell at about Rs. 9-12 per maund at Calcutta in competition with Java sugar which sells at Rs. 10-4 per maund. But actually it sells at about Rs. 8-8 at Calcutta, and thus unnecessarily wastes a considerable amount of protection."<sup>8</sup>

How can this 'waste of protection' be avoided? Naturally by charging 'the maximum price which market conditions permit.'<sup>9</sup> There is no doubt that combination among producers and a unified selling organization will make it possible to raise the price of sugar to Rs. 9-12 per maund. But it is an altogether wrong point of view. The industry does not exist for sugar producers alone. The price of Java sugar includes the present heavy duty. No justification exists for the heavy protection which the industry enjoys if the development of the industry does not eventually lower the price of sugar. No one objects to scientific and economic distribution of sugar, but if the result is to raise the price of sugar to the consumer, it would be the duty of the Government to lower the import duty.

<sup>7</sup> Article by Mr. M. P. Gandhi in December Supplement to *Capital*, 1934, p. 35 n.

<sup>8</sup> Pamphlet entitled *Single Sugar Selling Organisation* by Mr. M. P. Gandhi, 1934, p. 15.

<sup>9</sup> *Ibid.*, p. 14.

## THE MATCH INDUSTRY

The growth of the match industry in India will be remembered as a classical example of the beneficial effects of protection under favourable conditions. Before the year 1921 there was only a single match factory (the Gujrat Islam Match Factory of Ahmedabad) which, in spite of severe foreign competition, could make a small profit. The imports of matches in 1919-20 amounted to 15 million gross boxes. In March, 1921, the duty on imported matches, which had already been raised from 5 per cent *ad valorem* to 7½ per cent in March, 1916, was fixed at 12 annas per gross, and in March, 1922, it was raised to Rs. 1-8-0 per gross. All these changes in duty were determined by fiscal necessity. The increase in duty in 1921 and 1922 took place at a time when the Government of India were faced with a succession of budget deficits.

“With the imposition of a duty on imported matches,” says the Report of the Tariff Board on the match industry, “varying between 100 and 200 per cent *ad valorem*, the position changed rapidly.”\*

The increased duty was leviable on finished matches, not on undipped splints and veneers, and arrangements were made to import the latter from Japan. The manufacture of matches from imported veneers and splints proved very profitable. From 1st March, 1924, specific duties were imposed by Government on veneers and splints for the sake of revenue. But in the meantime Indian manufacturers had gained some experience of match manufacture. They now

\* Report, p. 4.



imported machinery for the manufacture of splints, veneers and boxes; aspen wood, on which a 15 per cent *ad valorem* duty was levied, was imported from Japan or Sweden. An Indian match industry thus came into existence.

The Tariff Board estimated that in 1927, 27 match factories existed in India, with an outturn capacity of 500 gross a day or over, and a total capacity of about 18 millions gross annually.

The demand for matches in India is about 17 millions gross; in 1926-27 Indian production was about 10½ million gross boxes.

With the growth of internal production imports have rapidly declined. This is shown by the following table:

IMPORTS OF MATCHES (MILLIONS OF GROSS BOXES)

		Japan.	Sweden.	Total (including other countries).
1915-16	..	15.3	2.3	18.3
1919-20	..	13.9	.9	15.0
1920-21	..	10.0	2.3	12.4
1921-22	..	12.7	.9	13.7
1922-23	..	8.3	2.7	11.3
1923-24	..	5.6	5.2	11.2
1924-25	..	3.5	3.0	7.3
1925-26	..	2.3	4.8	7.9
1926-27	..	1.0	4.5	6.1
1927-28	..	.3	2.9	3.5
1928-29	..	.08	1.3	1.5

The figures given above are a striking proof of the success of the Indian industry. It will be seen that the total imports declined from over 18 million gross boxes to less than 2 millions gross. It is also seen that Japan dominated

the Indian market during the War and for three or four years following its termination. The Japanese industry succumbed to Swedish competition, and at the present time the Swedish Match Company, which controls 60—70 per cent of the total world's demand, has a controlling interest in about 80 per cent of the Japanese industry.

The Swedish Match Company established six match factories in India between July, 1924, and September, 1926, of which four were working in 1926-27. The Tariff Board estimated the approximate capacity of the factories belonging to, or under the control of, the Swedish Match Company at about 6 millions gross a year.

Indian manufacturers feared that the object of the Swedish Match Company in establishing factories in India was to destroy Indian competition and to capture the Indian market. The Tariff Board admitted that "the resources of the Swedish Match Company are sufficient, if it so desired, to crush, for a time at least, all competition from Indian firms, and capture for itself the whole of the Indian market."\*

Mr. Iver Kreuger, however, on behalf of the Swedish Match Company denied that the object of the Company was to establish a monopoly—it only wished "to compete on equal terms with its competitors."† The Tariff Board did not find anything in the activities of the Company which called for Government intervention; on the other hand, the Board regarded the existence of the Company's factories as of "distinct economic value to the country," because of the

\* *Report*, p. 90.

† Mr. Iver Kreuger's Memorandum.

high standard of quality at the Company's factories, and of the training afforded to Indians in these factories in improved methods of match manufacture.

It deserves to be noted that in consequence of the growth of production, price in India is determined by internal competition. In the beginning matches made in Indian factories were of inferior quality but gradually the quality improved, and after making exhaustive tests, particularly in the monsoon months, the Tariff Board were able to say that "the matches manufactured of Indian wood in the most up-to-date factories, though less finished in appearance than imported matches," were, "for practical purposes little inferior," and that several manufacturers in India produced matches of superior quality which could not be distinguished from imported Swedish matches.\*

On the recommendation of the Tariff Board the duty of Re. 1-8 per gross was declared a protective duty. No definite period has been fixed after which protection will be withdrawn.

The following table shows the imports of matches in recent years:

IMPORTS OF MATCHES					
			From Japan 1,000 gross.	From Sweden 1,000 gross.	Total 1,000 gross.
1929-30	..	..	52	886	974
1930-31	..	..	20	360	397
1931-32	..	..	..	101	105
1932-33	..	..	11	43	57
1933-34	..	..	12	62	79
1934-35	..	..	15	19	54

\* Report, pp. 6 and 64.

The imports are negligible, and Indian production is sufficient to meet the demand.

The excise on matches, imposed in the budget for 1934-35, has led to a rise in price.

### CEMENT

One of the Indian industries which owe their development to the War is the manufacture of Portland cement. In 1914 a small quantity of cement was produced at Madras—945 tons, while imports in 1914-15 amounted to 165,723 tons. In the calendar year 1927 there were ten Indian companies manufacturing cement with an actual output of 477,640 tons, while imports amounted to 117,695 tons. The industry is of great national importance, as was seen during the War.

The cement industry in India enjoys many natural advantages. Limestone of excellent quality exists in many parts of the country. The longest distance over which limestone has to be conveyed is 32 miles. Suitable clay is found close to the works, and there are ample supplies of limestone and clay for a long period of years. Gypsum, the only other raw material needed, is also produced in India. The supplies of labour are adequate and the process of cement manufacture does not necessitate the employment of highly skilled workers from abroad. In respect of fuel, however, the cement industry is subject to a serious disadvantage. With one exception, all the companies are situated at long distances from the coalfields, and the freight on coal is a very serious item in the cost of production.

The Indian market for Portland cement is a large and growing one. Between 1900 and 1910 the imports increased from 43,000 tons to 135,000 tons, and in the last two pre-War years, when home production was negligible, cement was being imported at a rate exceeding 140,000 tons a year. Indian production and imports between 1914 and 1932 were as follows:

CEMENT				
		Indian produc- tion, 1,000 tons.	Imports, 1,000 tons.	Total con- sumption: 1,000 tons.
1914 ..	..	.9	166	167
1918 ..	..	84	27	111
1920 ..	..	91	119	210
1925 ..	..	361	68	429
1929 ..	..	560	75	635
1930 ..	..	560	68	628
1931 ..	..	588	62	650
1932 ..	..	582	59	641

Imports fell off heavily during the war, and in 1916 and 1918 consumption was substantially below the pre-War level. A rapid increase in consumption began after the war, and in 1925 consumption was more than  $2\frac{1}{2}$  times that for 1920, while production had increased more than five times. In the Calendar year 1932 a little more than 90 per cent of the total demand was met by Indian factories, leaving less than 10 per cent for imports.

The principal market for cement in India is in the ports, and especially in Calcutta and Bombay. This gives an advantage to the importer of cement over the Indian manufacturer, for with five exceptions, no Indian factory is within 600 miles of a port, and 4 out of the 5 are 1,000 miles and upwards from the coal fields. There are no cement works within 350 miles of Calcutta and none within 250 miles of Bombay. Indian manufacturers enjoy a great natural advantage in respect of the up-country market, but this is not important.

During the War Indian cement factories (3 in number) were working under Government control, and the great bulk of their output was taken by the Indian Munitions Board at a price not exceeding Rs. 55 a ton *ex-works*. Control ended in the middle of 1919 and the companies were able to sell their product at very remunerative prices, which were, however, much below the price of British cement. In 1922 the price of Indian cement began to fall, and it fell still more heavily in 1923—25 when the production of the new factories came on the market. The fall in price was entirely due to production having exceeded consumption. An application for protection was made to the Tariff Board which recommended the grant of a bounty, under certain conditions, on the cement conveyed to the ports. The Government of India refused to take any action on the ground that there were objections of principle to conditional legislation, and that they saw no justification for Government intervention.

Prices have been stabilised by agreement among producers. In 1926 the Indian Cement Manufacturers'

Association was formed and shortly after this the Concrete Association of India. In 1930 the Cement Marketing Company of India, Ltd., was established to control the output of the Indian factories on a quota basis, and to save waste on account of excessive railway freights by a rational distribution of orders.

The present condition of the industry is satisfactory. There are 10 or 11 factories in existence whose combined output exceeds 1,000,000 tons. Only about 60 per cent of the capacity is produced. Imports amount to about 67,000 tons (1934-35). The industry gives employment to 25,000 workers, and it requires 12 million jute bags to pack the finished product.

The consumption of cement per head of the population is estimated at 4 lbs. per year as compared with 558 lbs. in the United States and 150 lbs. in the United Kingdom.<sup>10</sup>

## PAPER

The Government decided to assist the bamboo and the paper pulp industry in 1925 by the imposition until March 31, 1932, of a specific protective duty at the rate of 1 anna per lb. on all printing paper (with certain exceptions) which contained less than 65 per cent of mechanical pulp and on all writing paper.

The grant of protection to the Indian paper industry marked a new phase in the development of the industry. Paper has been manufactured in Indian mills for about 60 years now. After the War the industry suffered much on

<sup>10</sup> *Supplement to Capital*, December, 1933, p. 53.

account of dumping by foreign manufacturers of paper, and the rise in exchange added to the difficulties against which Indian manufacturers had to contend. Competition from Scandinavia and Germany before the War made all Indian companies lose, but they made considerable profits during the War. After the War intense foreign competition started, assisted as it was by depreciated currencies, with the result that the Indian mills were undersold. Germany and England were chiefly responsible for dumping paper into India. The Scandinavian mills cannot afford to dump, as the domestic consumption of Norway and Sweden is small, and no manufacturer can dump 80 or 90 per cent of his output.

In the year 1926, 9 paper mills were working in India with a total output of 32,144 tons. The Tariff Board estimated the output of Indian mills at 33,000 tons a year, and expected, as the result of the expansion of the industry, that the output could be raised to 43,000 tons annually.

In the year 1931 there were ten paper mills working in India with an authorised capital of 1,21 lakhs, and a total output of 41,000 tons. The imports of paper (excluding pasteboard) are shown below:—

	Cwts			
Total of Paper.	1931-32.	1932-33.	1933-34.	1934-35.
Protected ..	247,877	229,812	260,115	223,225
Not protected	1,667,278	1,990,194	1,986,449	2,297,409
Total cwts. ..	1,915,155	2,220,006	2,246,564	2,520,634
Total tons ..	95,758	111,000	112,323	126,032



Including Indian production of 41,000 tons, the total consumption of paper in India at the present time is over 150,000 tons.

In 1934-35 we imported 508,000 cwts of news-printing paper of which only about 2,000 cwts were 'protected.' The import of old newspapers amounted to over 1 million cwts and of pasteboard, millboard and cardboard to 415,000 cwts.

It is impossible to make newsprint in India. Mechanical pulp has never been made from either grass or bamboo, the raw materials used in India. We cannot have cheap newspapers unless we continue to use (imported) papers containing a high proportion of mechanical wood pulp.

Old newspapers come almost entirely from the United Kingdom and are used largely in Bombay, Sind and Burma as the cheapest kind of wrapper. No manufactured paper can compete at the prices at which old newspapers are sold.

There are also certain kinds of papers which are not likely to be made in India: expensive rag papers; all-coated paper such as art paper and special manufactures such as blue match paper and tissue paper; papers of a very superior quality; and cheap wrapping papers. Lastly, Indian mills do not make pasteboard, millboard and cardboard.

The total market that Indian mills can hope to capture was estimated by the Tariff Board at about 20,000 tons.

Paper has hitherto been made in India from *sabai* grass, but grass, on account of its high cost, has no chance

in competition with bamboo pulp. The future belongs to the bamboo and the paper pulp industry.

Paper made from bamboo pulp is inferior to *sabai* grass paper in strength and durability, but for the great bulk of papers consumed in India bamboo fibre is quite good enough—certainly as good as wood, and possibly better. The quantities of bamboo which are commercially available in India are enormous. Mr. Raitt is of opinion that “from bamboo, taking only that which is available under possible manufacturing conditions, Burma, Bengal and South-West India could produce ten million tons of pulp per annum—India could therefore produce pulp for the whole world.”\*

India's bamboo resources are attracting the world's attention on account of the shortage of wood pulp. The rapid destruction of forests is chiefly responsible for this shortage. It is stated that in the United States forests are being destroyed four times faster than they grow; and that in Canada only 27 per cent of the original forest wealth is left, and its pulp would be exhausted in less than 30 years. Lord Rothermere, who represents probably the largest group in the world of paper-making, paper-consuming and forest-owning concerns, has declared that on account of the shortage of pulp wood, the pulp and paper industry “is within measurable distance of a crisis.”†

The advantage of using bamboo pulp in paper-making is that its supplies are practically inexhaustible. Bamboo

\* Paper read to the Royal Society of Arts in 1921.

† “Capital” (Calcutta), Indian Industries and Trade Supplement, December 13, 1928, p. 74.

is annually reproductive; wood requires 60 years to grow.

We learn that two bamboo areas in Burma have been acquired by important groups in London, and others are being considered.

The supply of raw material for the Indian paper industry is secure, and we may even say that when our bamboo resources are developed, our manufacturers of paper will be in a position of advantage as compared with European manufacturers. But in certain other respects they enjoy no advantages.

The cost of chemicals in India is high. Most of the chemicals required for the manufacture of paper are now made in India, but their prices are regulated by those of imported chemicals and they usually exceed the prices paid by European mills by the full amount of the sea-freight and landing charges, and in most cases, of the customs duties as well. Another difficulty is that the chemicals have to be brought to the mills from long distances, and the transport charges are heavy. Similarly most of the mills have to pay heavy transportation charges for coal. The best coal in India is found in one locality—the Raneegunj coal-field, and the paper mill which chooses to be near the sources of the raw material has to pay a heavy price for its coal. Indian labour is cheap, but when we consider the possibilities of expansion of our industry we cannot forget that the initial cost of paper mills in India is high—that of a new European mill is estimated to be three-fourths or two-thirds of the initial cost in India.

On the whole, the prospects of paper-making from bamboo pulp are hopeful. While the manufacture of paper from *sabai* grass under conditions of absolute free trade, except in the Punjab, is considered to be impossible, it is expected that if the abundant supplies of bamboo which exist in India are developed, the industry will need no further assistance for many years than what the existing protective duty gives it, and that eventually, as the cost of wood pulp increases, the industry would be able to do without protection altogether.

In 1932 protection to the paper industry was extended till 31st March, 1939. The maximum percentage of mechanical wood-pulp in the fibre content of printing paper which is assessable at the protective rate was increased from 65 to 70, and a duty of Rs. 45 per ton was imposed on wood-pulp. This duty shall also remain in force till 31st March, 1939.

### JUTE

The inception and development of the jute industry is due to foreign enterprise;<sup>11</sup> the industry is also largely financed with foreign capital.

<sup>11</sup> The following passage, taken from the *Imperial Gazetteer of India*, Vol. III, relates the early history of jute :

" Jute fibre was first experimented with by Europeans in 1820, the result being so unfavourable that brokers were for some years subsequently required to give a guarantee that sales of fibre effected by them were free from adulteration with jute. One of the earliest commercial references to the fibre occurs in the Customs returns of 1828. In that year 364 cwts of raw fibre valued at Rs. 620 were exported to Europe. The manufacture of gunny bags and cloth was at that time entirely in the hands of the Bengal peasant weavers, but the traffic could not have been very extensive. In

The average area under jute in the period 1895-96 to 1899-1900 was 2 million acres and the average yield of jute 5—8 million bales of 400 lbs. each. In the War period (1915-16 to 1919-20), the area increased to 2·6 million acres, and the yield to 8 million bales. The exports of raw jute declined during the war but those of jute manufactures increased from about 20 crores of rupees (pre-War average) to 45 crores (War average). Before the slump, in 1928-29 the area under jute amounted to 3·1 million acres, and yield 9·9 million bales, while exports of raw jute in the same year were valued at 32 crores and of jute manufactures at 45·6 crores. The position during the slump is shown by the following figures:—

RAW JUTE EXPORTS, 1ST JULY TO 30TH JUNE

Year.	Lakhs Rs.	Tons.	Value per ton.
1929-30	.. 26,10	805,800	324
1930-31	.. 11,18	609,000	184
1931-32	.. 10,85	556,000	165
1932-33	.. 10,51	629,000	167
1933-34	.. 10,99	759,000	145

1832 an enterprising Dundee manufacturer experimented once more with the fibre and was able to show that it might be used as a substitute for hemp. From that date jute gained rapidly in popular favour. It was recognised that it was capable of the most minute separation, but it is only within the last few years that this advantage has been utilised for the finer textile purposes. In time the difficulty of bleaching and dyeing the fibre disappeared; and the success of jute being thus assured, the foundation of the manufacturing enterprise of Dundee and Calcutta was laid."

## EXPORTS OF MANUFACTURED GOODS, 1ST JULY TO 30TH JUNE

Year.		Lakhs Rs.	Tons.	Value per ton.
1929-30	..	48,69	945,000	515
1930-31	..	27,95	716,000	390
1931-32	..	21,69	662,000	343
1932-33	..	21,87	685,000	319
1933-34	..	20,11	666,000	302

The fall of prices has been disastrous, and at the same time the quantity of raw jute and jute manufactures exported has shrunk. The income of Bengal from jute fell from 74 $\frac{3}{4}$  crores in 1929-30 to a little over 31 crores in 1933-34, a fall of over 58 per cent.

The Bengal jute grower has been hit hard. On account of the fall of prices the burden of his debt has about trebled. He was advised to grow more rice instead of jute, but rice is not a much more hopeful proposition. The only valuable alternative crop is sugar-cane. As we have seen the area under sugar-cane is rapidly expanding all over India, and the limit of expansion would be soon reached.

By an agreement which came into force on 1st August, 1932, jute mills which are members of the Jute Mills Association are working 40 hours per week with 15 per cent of their total looms sealed down.<sup>12</sup> The mills outside the

<sup>12</sup> It has been decided to release 2 $\frac{1}{2}$  per cent of the looms from seal on August 5, 1935. The factor which has most influenced this decision of the Jute Mills Association is increasing competition from mills which were not parties to the restriction agreement. The Association want the Government to limit working hours in jute mills to 54 per week by legislation, but the attitude of Government is 'unsympathetic.' The Associated Mills are prepared to 'discourage expansion by the only means in our power, which is to increase production' a curious method of discouraging expansion, one must say (*The Sunday Statesman*, May 5, 1935).

Association agreed to reduce their working hours to 54 per week but were permitted to operate all their machinery.

The foreign demand for jute has fallen on account of the general contraction of world trade and the increasing use of substitutes. France is encouraging the use of Sisal from her colonies. The cement trade has gone over to paper and paper bags are also used in the sugar trade. The Soviet Government is reported to be experimenting with fibres which are grown within their country as substitutes for jute.\*

Demand for jute may increase if new uses for jute are discovered. Jute may be used for insulating materials, for roofing and for the production of sheeting for internal and external walls. Jute cloth may be used for wire-mesh in concrete structures and also in road-making. If the experiments now being conducted are successful, "it may be pardonable to conjure up visions of the Calcutta mills working full time with all their machinery and the ryot being urged to sow more jute."<sup>13</sup>

\* "There has been during the year the usual crop of reports regarding the discovery of substitutes for jute. We have been told that a new method has been discovered for dealing with Sisal so that bags can be made from it of equal quality and at competitive prices with those of jute. It is also reported that, in Italy, a fibre has been extracted from the broom plant which has the prospects of competing successfully with Bengal's product. A factory has been brought into operation in New Zealand for the manufacture of woolpacks from New Zealand flax and we are told that rock wool from Canada is to take the place of jute in the manufacture of cables and insulating sheets. Reports from Australia and the Argentine also state that the development and extension of mechanical appliances are likely to reduce the requirements of jute goods in these centres in the near future." ["Capital," December (1934), Supplement, p. 13].

<sup>13</sup> *Capital*, December, 1933, Supplement, p. 19.

In the meantime the ryot is being urged to sow less jute. The restriction is at present to be voluntary. Government propaganda in favour of crop restriction has been launched through the Agricultural and the Co-operative Departments, and the District and Union Boards. Reduced quotas have been fixed for each District. If voluntary crop restriction through persuasion fails, compulsory restriction through legislative action may be resorted to.

### TEA

The price of tea (black) fell from 12 annas per lb. in March, 1928 and 1929, to about 9 annas in March, 1930. It rose to a little over 11 annas in March, 1931, but fell again in 1932. There was a rise to  $9\frac{1}{2}$  annas in March, 1933, and a further substantial rise in 1934.<sup>14</sup> The improvement was due to crop restriction. The following table shows the quantity and value of exports in certain years:

#### EXPORTS OF TEA

Year.		Million lbs.	Lakh Rs.
1927-28	.. ..	362	32,43
1928-29	.. ..	360	26,60
1929-30	.. ..	377	26,01
1930-31	.. ..	356	23,56
1931-32	.. ..	342	19,44
1932-33	.. ..	379	17,15
1933-34	.. ..	318	19,85
1934-35	.. ..	325	20,13

<sup>14</sup> The price fell again from As. 11-9 in March, 1934, to As. 10-6 per lb. in March, 1935.



It will be seen that in 1932-33, while the quantity of exports was greater than that in 1927-28, the value of exports fell by  $15\frac{1}{2}$  crores. The only method of arresting the decline in prices was restriction of production and of exports. At the suggestion of the Dutch a plan was adopted in 1932, which will remain in operation for five years, by which the principal producing countries have undertaken not to export more than a given quantity in any year, the quantity to be revised annually. The control of exports is now statutory. But it soon appeared to the Indian Tea Association that "the control of exports was not in itself the Alpha and the Omega of recovery."<sup>15</sup> The control of exports was supplemented by the control of production. A scheme of voluntary control of production was devised and put into operation with the requisite support of 93 per cent of the producers in India. Briefly, an estate which produced 100,000 lbs. in the best year was allotted an export quota of 65,000 lbs., and was entitled to an allowance of 12,000 lbs. for consumption in India, giving a total crop of 77,000 lbs., which, under certain conditions, can be increased to 90,000 lbs.

#### FACTORY INDUSTRIES AND THEIR DISTRIBUTION

The following statement includes all factories which come under the operation of the Indian Factories Act of 1911 as amended by Act 11 of 1922 (excepting those in which the average number of persons employed daily is less than 20), and also factories in Indian States:

<sup>15</sup> *Capital*, December, 1933, Supplement, p. 22.

STATEMENT SHOWING THE PRINCIPAL FACTORY INDUSTRIES IN INDIA  
INCLUDING STATES

	Number of establish- ments.	Persons daily em- ployed.
I. Textiles .. .. .	561	714,677
II. Engineering .. .. .	770	221,162
III. Minerals and Metals ..	103	52,157
IV. Food, Drink and Tobacco	2,657	178,175
V. Chemicals, dyes, etc. ..	468	55,268
VI. Paper and Printing ..	394	44,995
VII. Processes relating to wood, stone and glass	440	68,114
VIII. Processes connected with hides and skins	60	7,671
IX. Gins and Presses ..	2,778	209,546
X. Miscellaneous ..	173	44,652
Grand Total ..	8,404	1,596,417
British India ..	7,063	1,400,003
Indian States ..	1,341	196,414

The most important group is Textiles. This includes clothing, cotton (spinning, weaving and other) factories, hosiery, jute mills, silk mills (including filatures) woollen carpet and shawl weaving establishments, and woollen mills. The total number of cotton factories, which give employment to over 4 lakhs of persons daily, is 351, of which 45 are located in Indian States. There are 208 cotton factories in Bombay, 25 in Madras, 16 each in Bengal and C. P., 22 in the United Provinces and 7 in the Punjab. Of the 100 jute mills, giving employment to  $2\frac{3}{4}$  lakhs of persons daily, 93 are in Bengal. There are 16 woollen mills (Bombay 2, United Provinces 4, Punjab 3 and Mysore 3). Of the 19 silk mills (including filatures) Mysore has 7, Bombay 5, Madras 3 and Bengal 2.

The second group, Engineering, comprises: coach-building and motor-car repairing, dockyards, electrical engineering (43); electrical generating and transforming stations (55), general engineering, kerosine tinning and packing, metal-stamping, railway workshops, ship-building and engineering (17), steel-trunk, lock and cutlery, and tramway works. The most important industries in this group are general engineering (No. 281; Persons 39,000), and railway workshops (No. 162; Persons 125,000). Ship-building and engineering employ about 16,000 persons.

Group III, Minerals and Metals, includes foundries (No. 50; Persons 3,225), iron and steel smelting and steel rolling mills (No. 6; Persons 31,292), copper and lead smelting and copper rolling mills, mica works, and petroleum refineries (No. 12; Persons 11,000).

Group IV, Food, Drink and Tobacco, comprises bakeries, breweries and distilleries (33), coffee works, dairy produce, flour mills (97), food canning and bottling, ice and aerated waters (56), rice mills (No. 1,247; Persons 73,000), sugar factories, tea factories (No. 886; Persons 55,000), tobacco factories (22) and water-pumping stations.

Group V comprises bone and manures, chemicals, dyeing and bleaching, gas works, indigo, lac, matches (No. 50; Persons 17,652), oil mills (231), paints, soaps (14), and terpentine and rosin.

Group VI consists of paper mills (No. 9; Persons 5,719), paper pulp and printing, book-binding, etc. (No. 377; Persons 38,400).

Group VII is composed of bricks and tiles (including Surkhi mills) carpentry and cabinet-making; cement, lime and potteries (32); glass factories (29), saw mills (No. 157; Persons 15,000), and stone-dressing.

Group VIII comprises leather and shoes (12) and tanneries (753).

Under Group IX there are 2,656 cotton ginning and baling factories, giving employment to 179,000 persons and 103 jute presses, employing 29,700 persons.

The last group, Miscellaneous, comprises brushes (2), canvas proofing, fodder, grain-crushing, gramophone records, jewellery workshops, laundries, mints, ordnance factories (No. 23; Persons 18,000), reeds and combs, repairs, rope-works (40), rubber goods (10), sappers and miners' workshop, stores works and telegraph works.

In the statement given below the more important industries are classified by Provinces:

*Madras.*—Cotton spinning and weaving, jute mills (4), general engineering, kerosine tinning and packing, railway workshops, coffee works, rice-mills, tea and tobacco factories, printing, bricks and tiles, tanneries, cotton ginning and baling, rope-works.

*Bombay.*—Cotton spinning and weaving, railway workshops, general engineering, dockyards, flour mills, dyeing and bleaching, matches, oil-mills, printing, saw mills, cotton ginning and baling, ordnance factories.

*Bengal.*—Jute mills, general engineering, railway workshops, ship-building and engineering, iron and steel smelting and steel rolling mills, rice mills, tea factories, chemicals, matches, oil-mills, paper mills, printing, cement, lime and potteries, jute presses, ordnance factories.

*United Provinces.*—Cotton spinning and weaving, railway workshops, sugar factories, oil-mills, printing, glass, cotton ginning and baling, ordnance factories.

*Punjab.*—Cotton spinning and weaving, railway workshops, flour mills, printing, cotton ginning and baling, ordnance factories, woollen mills, sugar factories, cement.

*Central Provinces.*—Cotton spinning and weaving, railway workshops, printing, carpentry and cabinet-making.

Industries giving employment to more than 25,000 persons daily are small in number: Cotton spinning and weaving, jute mills, general engineering, railway workshops,

iron and steel, smelting and steel rolling mills, rice mills, tea factories, printing and book-binding, cotton ginning and baling, and jute pressés.

A comparison of the figures of our factory employees with those of Great Britain brings out the essential difference between our industrial development and that of an advanced industrial country :

NUMBERS AGED 10 YEARS AND UPWARDS IN GREAT BRITAIN ENGAGED IN THE PRINCIPAL INDUSTRY GROUPS. FIGURES IN 1,000.

	1881	1921
Total aged 10 years and over ..	22,081	34,979
Agriculture .. ..	1,593	1,307
Coal and Shale mining ..	437	1,305
Manufacture of Bricks, Cement, Pottery and Glass ..	130	214
Manufacture of Chemicals, Explosives, Paints, Oils, Rubber, etc.	52	269
Manufacture of Metals, Machines, Implements and Conveyances ..	927	2,491
Manufacture of Textiles ..	1,191	1,293
Cotton .. ..	520	621
Wool and Worsted ..	252	260
Silk .. ..	64	34
Flax, Hemp, Jute, Rope, Canvas and Canvas goods ..	85	88
Dyeing, Bleaching, Printing, Furnishing .. ..	66	117

(Source: *Statistical Abstract for the United Kingdom, 1934*, pp. 100-101).

Persons aged ten years and upwards engaged in the cotton industry in Great Britain numbered 520,000 in 1881,

and 621,000 in 1921 (India, 1931, 417,000). The total number of persons engaged in the textile industry in Great Britain in 1921 was 1,293,000 (India 1931, 715,000). It should not be forgotten that the population of Great Britain (45 millions in 1931) is about one-eighth of the population of India.

The most interesting figure is that of persons engaged in the manufacture of metals, machines, implements and conveyances—2,491,000 in Great Britain in 1921, or about 13 per cent of the total number of occupied persons of ages 10 years and upwards. The total number of employees in India of engineering works and of establishments in Group III, Minerals and Metals, in 1931 was 273,000. Those engaged in the manufacture of metals, machines, implements and conveyances in Great Britain exceed the total number of our factory workers.

India does not manufacture modern machines and implements. Our engineering works are mostly repair shops, or manufacture simpler parts of machinery. In an industrial country the manufacture of capital goods occupies the largest proportion of workers. It is remarkable that the level of prosperity is higher where a considerable proportion of the population is engaged in making means of transportation and other indirect goods than where an overwhelming majority of the population is producing consumable commodities. British workers do not care about producing food—the number of agricultural workers decreased from 1,593,000 in 1881 to 1,307,000 in 1921—but they have more of it in the end than 71 per cent of our population who are directly engaged in agriculture.

## CHAPTER VII

### INDIAN PRICES, 1861—1934

The history of Indian prices since 1861 divides itself into five clearly-defined periods:

1861—1905. Gradual rise of prices.

1905—1914. Rapid rise of prices.

1914—1920. Inflationary rise of prices.

1920—1929. Deflationary fall of prices.

Since 1929. Heavy fall of prices owing to world depression.

#### PRICES, 1861—1905

The fluctuations of prices before 1905 show the effect on our agricultural economy of the linking together of distant parts of India by the railway and of Indian with foreign ports.

As early as 1865 passengers and goods could be booked through between Amritsar and Karachi. Through communication between the Punjab and Calcutta and the Punjab and Bombay was established in 1870.

The reader is referred to charts showing annual fluctuations in the price of wheat and rice, and the trend shown by means of the smoothed curve. No mistake should

be made in the interpretation of a smoothed curve. The rise or fall of a smoothed curve in any year does not mean that the price began to rise or fall precisely in that year. For example, the ten-yearly moving average for rice (centred by means of a two-yearly moving average) rose to its highest point (348) in the year 1924; thereafter it fell continuously till 1928. But the actual price of rice rose from 335 in 1924 to 368 in 1927. The moving average set down against any year does not indicate the level of the price in that year, since it is an average of price indices for a number of years.

There are two chief characteristics of price fluctuations in the pre-railway era: (a) fluctuations of prices from year to year were not infrequently great and violent, and (b) differences between prices in different places were very often considerable.

In the town of Haripur Hazara the price of wheat in 1852 was a little less than 8 annas a maund; in 1853 it rose to a rupee. In 1860, in the same place, the price was 12 annas a maund, and in the following year 2 rupees.

Prices depended more or less on local production. Prices rose sharply in a year of scarcity and fell heavily in a time of plenty.

Pakpattan, Dipalpur and Hujra are in the same District (Montgomery), but in the year 1849 wheat sold at 42 seers per rupee in Pakpattan while the average quantity obtainable for a rupee in Hujra and Dipalpur was  $23\frac{1}{2}$  seers.

Differences between prices in more distant places were, as might be expected, still more remarkable.



PLATE No. 13

Price of Rice (India).

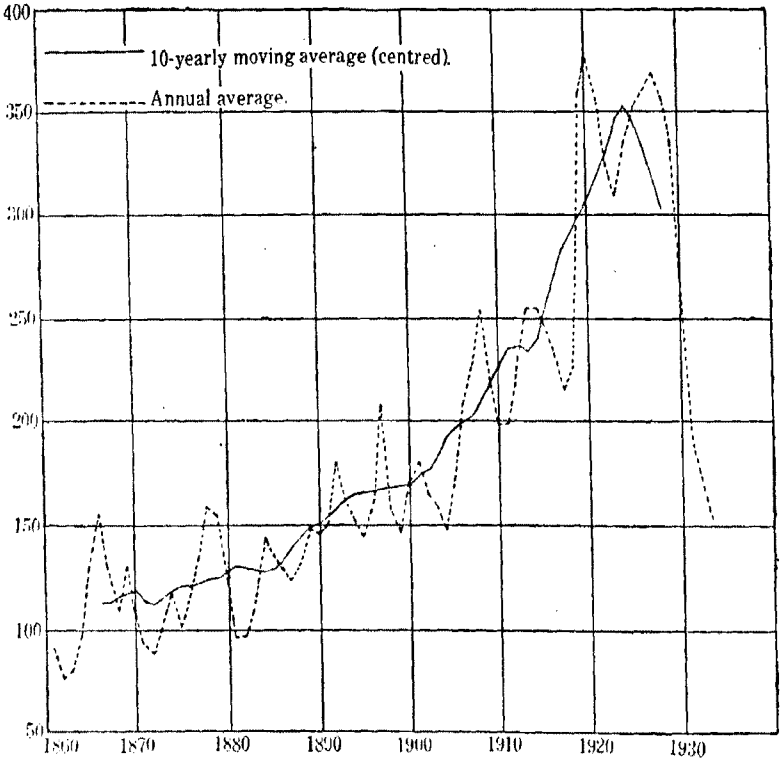
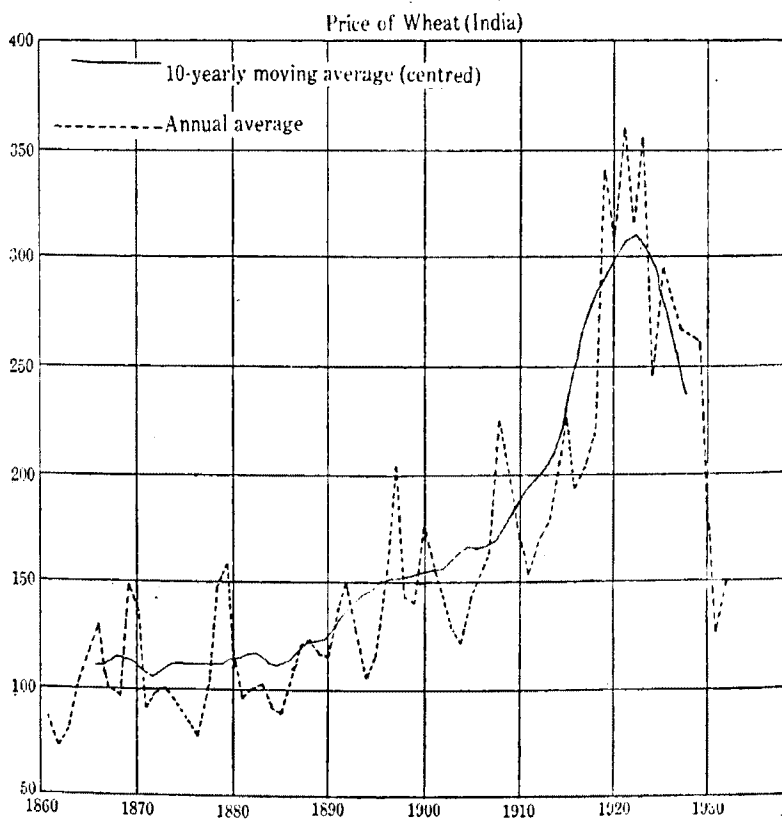


PLATE No. 14



## THE EXPORT TRADE

The influence of the export trade in keeping up prices is referred to in several Punjab Administration Reports of this period. The earliest reference is in the Administration Report for 1865-66, where the "steady increase" in the price of wheat is ascribed to increased demand and "the opening out of new markets."

The Punjab Administration Report for 1871-72 thus comments on the connection between prices in the Punjab and other provinces:

"There can be no doubt that the prosperous grain harvest of 1871-72 in the North-Western Provinces made prices easier in the Punjab; when there is a demand for grain in other provinces, the Punjab prices always rise, even though the supply be abundant" (p. 152).

The spring crop of 1873-74 was "a most abundant one," but according to the Punjab Administration Report for 1873-74, "the effect of this on prices was to a considerable extent counter-balanced by the extraordinary export of food grains to the Bengal famine districts."

The Punjab Administration Report for 1876-77 refers to the "great demand for export to the famine districts of Bombay and to Europe" in the case of wheat in 1876-77. That the price still fell was due to a plentiful supply in the province. "Wheat," the Report adds, "is grown chiefly for sale and export, the agriculturist ordinarily subsisting on the cheaper grains."\*

\* P. 83.

1896-97 and 1899-1900; 1866, 1889 and 1908 were years of scarcity.

#### PRICES, 1905—1914

After 1905 the prices of food grains and almost all other articles rose almost continuously till 1914.

Attention was called to the rise of prices in India by an anonymous writer in the *Economic Journal* (London) for March, 1907. He attempted to show that the rise of prices was due to the inelasticity of the Indian currency system:

“The conclusion therefore cannot be resisted that the floods of rupees entering the country in the busy season must, finding no employment thereafter, choke the circulation in the dull season and raise prices, whilst each succeeding year the demand grows like a snowball falling down a slope.”

In the Budget debate of March, 1908, Mr. Gokhale drew attention to the rise of prices which he attributed to the heavy coinage of rupees by the Government of India, and pressed for the appointment of a committee to consider the whole question of the rise of prices. Writing in the *Journal of the Royal Statistical Society* for September, 1909, Mr. Fred. J. Atkinson, sometime Accountant-General of the United Provinces, reached the same conclusion, that the question of a redundant currency was mixed up with the currency system of India and that the redundancy was due to the fact that the currency was not automatic.

The Government of India appointed a Committee for the investigation of the problem in 1910. The Committee submitted its report in 1914.

That the European demand exercised a very important influence on the price of wheat in India was admitted by the Indian Prices Enquiry Committee of 1910.\*

What is true of wheat is also true of all exported articles. The following statement shows the lowest and highest points touched by the average of 28 exported articles in each decade between 1861 and 1910:—

	Highest.	Lowest.
1861—70 ..	110 (1866)	88 (1861 and 1862)
1871—80 ..	114 (1878)	90 (1876)
1881—90 ..	104 (1889)	91 (1885)
1891—1900 ..	124 (1908)	103 (1891)
1901—10 ..	124 (1897)	103 (1903)
1911—20 ..	281 (1920)	136 (1911)

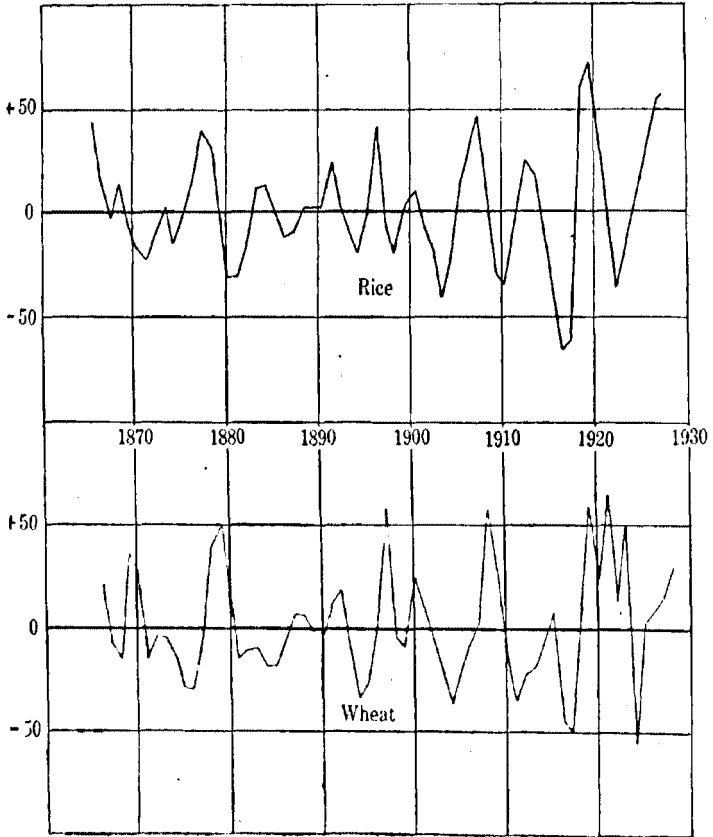
It is seen that with one exception, the lowest price-index of each successive decade was higher than that of the preceding decade. In 1901—10 the prices of exported articles were lowest in the year 1903, when, falling from 113 in 1902, they returned to the level of 1891 (103).

While prices showed a tendency towards a slow and gradual rise between 1861 and 1905 (more accurately after 1865) on account of the influence of the export trade, they were still subject to seasonal fluctuations. As before the era of railways, they rose in a year of famine or scarcity, but not so sharply as before, and returned to about (not quite) the old level with the advent of normal seasons. India was visited by famines in 1876-78,

\* P. 114.

PLATE No. 15

Short-time fluctuations (eliminating the general trend).



The Committee recognised that "up to 1905 the fluctuations in the prices of food grains and pulses depended largely on the agricultural conditions in India." But a sharp and rapid rise of prices began in 1905 which was not always wholly due to unfavourable agricultural conditions. Taking India as a whole the agricultural conditions were not seriously adverse either in 1905 or in 1906. Still these years appeared to have ushered in a new period in the history of Indian price levels, the predominant characteristic of which was the existence of famine prices without famine."\*

The Committee compared the rise of prices in India with that in the leading countries of the world and found that the rise was greatest in India. This is shown by the following statement:—

THE RISE IN WHOLESALE GOLD PRICES IN INDIA AND  
OTHER COUNTRIES IN THE QUINQUENNium 1907—11

Country.	Compared with 1899—94.	Compared with 1894—93.
India .. ..	40	40
Belgium .. ..	25	26
Germany .. ..	24	38
United States .. ..	20	38
Canada .. ..	19	31
Italy .. ..	14	24
Australia .. ..	13	20
France .. ..	12	26
United Kingdom .. ..	9	21
New Zealand .. ..	1	9

\* Report, p. 32.

In view of the greater rise of prices in India the Committee considered it necessary to examine at length the probable causes of the rise of prices peculiar to India. The general causes of the rise of prices throughout the world were: a shortage in the supply of, or an increase in the demand for staple commodities in the world's markets; the increased gold supply from the world's mines; the development of credit; and destructive wars and the growth of armaments.

Mr. K. L. Datta (who wrote the Prices Report) regarded comparative shortage of supply as one of the important causes of the rise of prices. The Government of India, however, did not accept this view. They pointed out, in the first place, that the commercial-crops occupied a very small proportion of the total area under cultivation, and that in the country as a whole there was no substitution of non-food crops for food crops. Secondly, they did not regard Mr. Datta's estimates of output as reliable. The area under cultivation expanded more rapidly than the population, except during the quinquennium 1895—99 to 1899-1900, while between the growth of population and the extension of food cultivation there was "an almost precise parallelism." They also pointed out that the area irrigated from State-owned sources nearly doubled during 1899—1912. Lastly, they agreed with Mr. Datta that the export of food grains exercised a negligible influence on their prices.

The Government of India also agreed with Mr. Datta that the rise of prices during 1890—1912 was not the effect, but the cause of increase in the circulation of rupees,



and that the extended use of credit had "an important effect on prices." They, however, seemed to attach more importance to world factors than to this or any other cause peculiar to India. From 1890 to 1905 "Prices rose or fell in the main in accordance with changes in the agricultural conditions from year to year." The causes of rise of prices since 1905, "must be sought for in a different and independent group of circumstances."

To this view, however, it may be objected that if our price level rose under the influence of the rising price levels of foreign countries, it could not have risen more rapidly than the latter. The rise of prices in Germany and the United States, as Mr. Datta said, could be partly accounted for by their protective tariffs and growth of industrial and commercial combinations in these countries. But no such factors were at work in India.

As regards the effect of credit upon prices, both Mr. Datta and the Government were mistaken in their view.

Some evidence on the use of cheques in India was taken by the Chamberlain Commission. Mr. Henry Marshall Ross,\* a witness, was of opinion that the use of cheques could be advantageously extended even in the Presidency towns. "It is very poor at present," he said. He was asked whether the use of cheques was likely to curtail the circulation of currency notes and whether it was probable that cheques would be used at all throughout the country beyond the Presidency towns. His reply was

\* A Calcutta export merchant.

“not within any period I can look forward to myself. They will be confined to the Presidency towns’ business.”

Important evidence in this connection was given by another witness:\*

Q. 4106. (Mr. Keynes). Can you tell us in what class of transactions you find it possible in your business to use cheques?—Speaking of my own business I use cheques practically in every case. No matter what the kind of payment, except for wages and salaries which I always pay in cash.

4108—If you are buying produce of an Indian trader, would you pay him by cheque?—Very rarely. He probably wants either currency notes or actual cash.

4109—Then these cheques which you mention are paid to English merchants?—That is so largely.

4110—And except when you are making payments to other English merchants you would not use cheques much?—No, broadly speaking, I should not.

In a memorandum submitted by the same witness to the Commission, he had referred to the possibility of the use of cheques being gradually increased throughout the country. The Commission asked him whether he thought that would be a speedy process. The witness said “No.” What he had in his mind more particularly was the European Community using cheques more—“. . . the native does not to any great extent use cheques for large amounts,” he added.

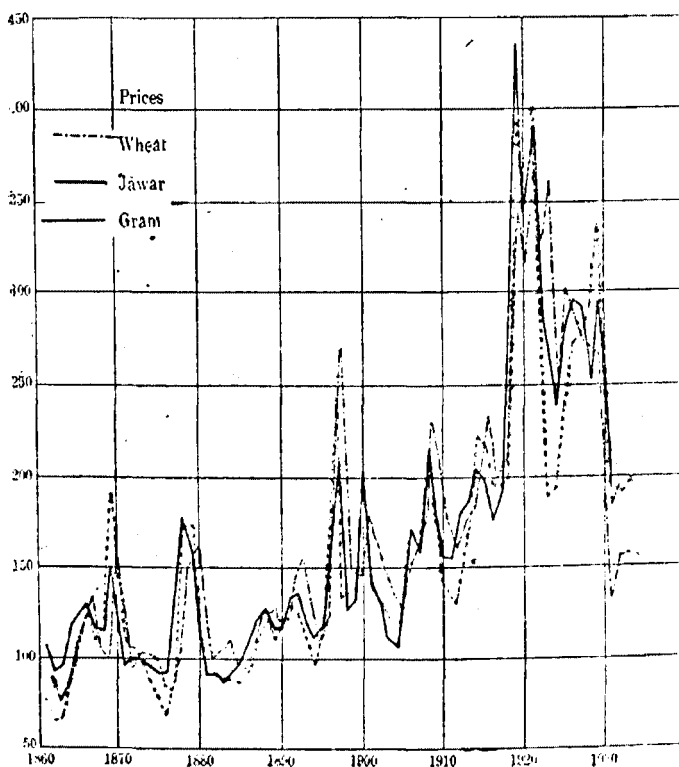
Q. 4072. And it is not likely that he will? “I do not think so for long time to come.”

The Prices Committee did not seriously examine the charge of inelasticity brought against the gold exchange system.

\* Sir Alexander McRobert, a woollen manufacturer.

PLATE No. 16

Showing how the prices of coarser grains and wheat rise and fall together.



So far as the addition of rupees to the circulation is concerned, the only difference between the gold exchange system and the system which existed before 1893 according to Mr. Datta was that while in the one case rupees were issued in exchange for the imported gold and Council bills, in the other case they could be obtained directly by the minting of bullion at the option of its owner.

In a monetary system with an open mint the currency decreases automatically when the rise of prices causes imports to increase and renders the export of gold or silver necessary. The circulation is thus reduced and prices fall. Under a gold exchange system an adverse balance of trade cannot be adjusted by the exportation of the token coins. The tokens must be converted into gold (or bills payable in gold) for that purpose. The Government of India did so when it became necessary. This was the outlet provided for the excess currency.

What the Prices Committee forgot was that before the rupee became a token coin (that is, before 1893) hoarding and melting, apart from export, accounted for about 45 to 50 per cent of the coinage.

When the rupee became a token coin, the melting of rupees ceased altogether, while for purposes of hoarding gold was preferred. It cannot be doubted that the hoarding and the melting of rupees before 1893 prevented prices from rising too rapidly by reducing the volume of the currency, and that the change in the character of the rupee, from a full value coin to a token coin, by discouraging hoarding and making it unprofitable to melt rupees, con-

tributed in some measure to the inflation of the rupee currency. It really proves nothing to say, as Mr. Datta does, that the "average annual coinage during the eighteen years that have elapsed since the closing of the mints has been much less than in the corresponding period preceding that date." The averages are 751 lakhs for the period 1874-75 to 1893-94, and 566 lakhs for the period 1893-94 to 1911-12. In the decade following the closing of the mints the average net coinage was small, due to a deliberate restriction of the coinage to force up exchange. The net coinage of silver was very heavy in the period 1899-00 to 1907-08, amounting to a total of 100·24 crores for 9 years, or over 11 crores annually on an average. During 19 years, from 1874—75 to 1892—93, the total net coinage of silver amounted to 137·88 crores, which gives an annual average of 7 1/4 crores. The rise of prices became very marked, as we have seen, after 1905. Now in the triennium 1905-06 to 1907-08, the total net coinage of silver amounted to 55·96 crores, a figure which has not been exceeded by the total net coinage in any period of *five* years before the closing of the mints.

The Prices Committee's index numbers showed that between 1890 and 1910 the demand for currency increased much more rapidly than the supply of currency (rupees and notes). The Committee under-estimated the monetary circulation and over-estimated the growth of business. The defence of the gold exchange system by the Princes Committee is of little interest now, after the condemnation of that system by the Hilton Young Commission of 1925.

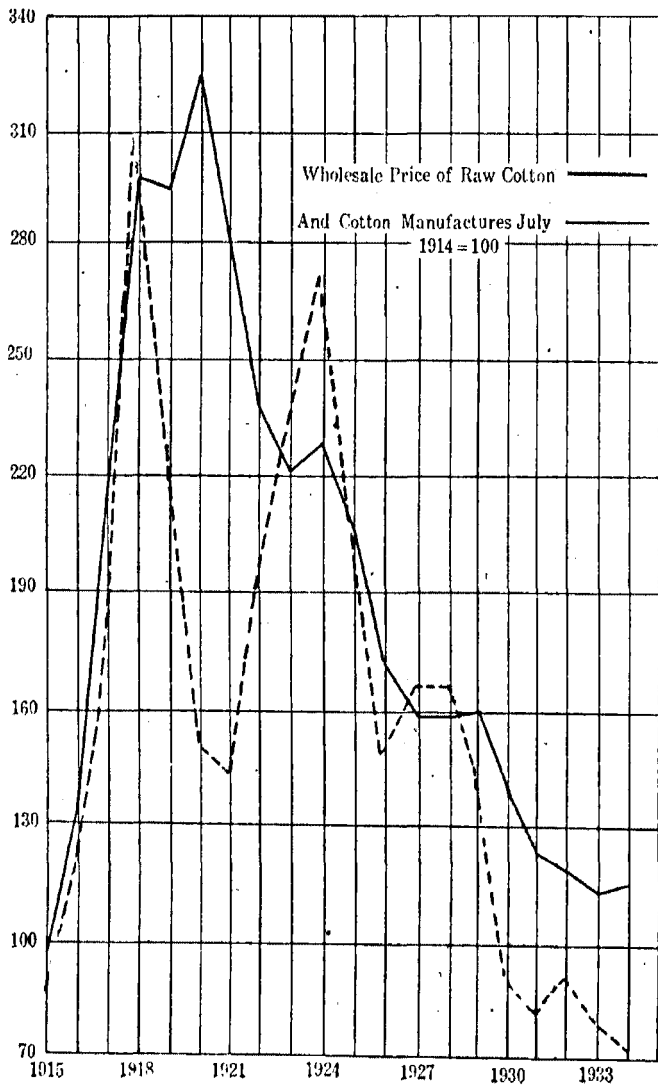
## PRICES, 1914—1920

The rise of prices before the war had one satisfactory feature—the prices of exported articles rose more rapidly than those of imported articles. The outbreak of war made no change in this respect, but as the war proceeded, the shortage of imports, due to the preoccupation of Western countries with the war and the scarcity of shipping, began to make its influence felt. For the first time after 39 years the index number of imported articles rose above that of exported articles in 1916 (236 and 163 respectively) and it remained in that position in the following two years. Some idea of the shortage of imports during the war may be gained from the following statement:

## IMPORTS

	Average 1909-10 to 1913-14.	Average 1914-15 to 1918-19.
Cotton manufactures, million yds. ..	2,617	1,810
Metals, iron and steel, tons ..	803	422
Silk manufactures, million yds. ..	26	20
Dyes, million lbs. ..	15.4	3.1
Woollen piece goods, million yds. ..	22.4	8.2
Glass, sheets and plates, million sq. feet ..	16.2	8.3
Boots and shoes, 1,000 pairs ..	2,323	1,170
Machinery and mill work, Lakh Rs. ..	561	5
Ry. plant and rolling stock, Lakh Rs. ..	480	293

PLATE No. 17



The war created a demand for some of our exports (notably jute manufactures, leather, metals, wool and rubber) and their prices rose.

The addition to the monetary circulation in five years from 1914-15 to 1918-19 was about 39 crores (rupees 22 crores and notes about 17 crores). But there was a heavy addition to the circulation in 1919-20—more than 40 crores in a single year. The budget deficit in 1919-20 exceeded 23 crores; practically the whole of the deficit was due to the Afghan War. The deficit was met by the issue of fiduciary currency against the Government's own securities.

In India, as in European countries, prices were highest in 1920, but Indian prices rose to a smaller extent than Europe prices. The causes which raised prices in Europe were also working in India but in a much attenuated form.

While the heavy fall of prices since 1929 has made the masses of India poor, and every one would welcome a rise of prices, an uncontrolled rise of prices is not an unmixed blessing either. In a memorandum submitted to the Babington Smith Currency Committee (1919) the Government of India said: "There is no longer any room for doubt that the resultant increase in the expense of living due to the high prices of food grains, also of other necessaries, such as cloth and kerosine oil, and the hardship which the increase has entailed on the poorer classes and those on fixed incomes, has been a very important factor in promoting unrest and discontent."



## PRICES, 1920—29

The absorption of currency between 1920-21 and 1930-31 is shown by the following table:

				Lakhs.
1920-21	..	..	..	-31,58
1921-22	..	..	..	-1,11
1922-23	..	..	..	-5,69
1923-24	..	..	..	+15,58
1924-25	..	..	..	+1,14
1925-26	..	..	..	-7,01
1926-27	..	..	..	-23,16
1927-28	..	..	..	+6,47
1928-29	..	..	..	+54
1929-30	..	..	..	-40,51
1930-31	..	..	..	-32,95

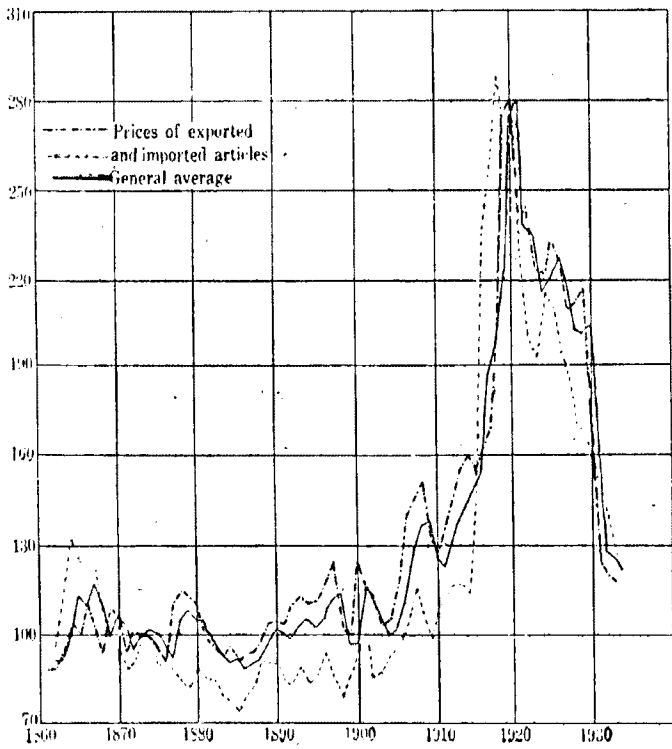
*Minus* (-) indicates net withdrawal of currency (both rupee and notes) and *plus* (+) net addition to the circulation.

The net withdrawal of currency in the ten years from 1920-21 to 1929-30 amounted to over 86 crores.

The fall of prices worked against the agriculturist. As shown by the index numbers of wholesale prices in Calcutta, since 1925 the index number for cotton manufactures is above that for raw cotton.

Little need be said here about the causes or effects of the fall of prices since 1929. The trade depression has ushered a revolutionary change in prices which has upset our whole economy.

PLATE No. 18



## I

## INDEX NUMBERS OF PRICES IN INDIA. 1873=100 (COMMERCIAL INTELLIGENCE DEPARTMENT)

Year.	Exported articles 28.	Imported articles 11.	General Index No. 39 articles.
1861	.. 88	95	90
2	.. 88	95	90
3	.. 93	113	98
4	.. 103	132	111
5	.. 100	125	107
6	.. 110	126	115
7	.. 102	124	108
8	.. 94	107	98
9	.. 103	97	105
1870	.. 105	95	102
1	.. 95	83	93
2	.. 101	91	98
3	.. 100	100	100
4	.. 102	99	101
5	.. 95	90	94
6	.. 90	91	90
7	.. 110	88	104
8	.. 114	84	106
9	.. 112	83	104
1880	.. 110	88	104
1	.. 99	86	96
2	.. 95	85	92
3	.. 93	79	89
4	.. 96	78	91
5	.. 91	75	87
6	.. 93	80	89
7	.. 94	83	91
8	.. 98	92	96
9	.. 104	91	101
1890	.. 104	91	100
1	.. 103	84	98
2	.. 109	84	102
3	.. 112	89	105
4	.. 110	84	102

INDEX NUMBERS OF PRICES IN INDIA. 1873=100 (COMMERCIAL  
INTELLIGENCE DEPARTMENT)—(Contd.)

Year.		Exported articles 28.	Imported articles 11.	General Index No. 39 articles.
1895	..	111	87	104
6	..	117	94	110
7	..	124	86	113
8	..	102	80	96
9	..	100	87	96
1900	..	124	96	116
1	..	116	96	110
2	..	113	86	106
3	..	103	88	99
4	..	104	93	101
5	..	116	96	110
6	..	139	105	129
7	..	145	116	137
8	..	151	106	138
9	..	133	99	124
1910	..	127	109	122
1	..	136	113	129
2	..	145	117	137
3	..	154	117	143
4	..	160	114	147
5	..	155	146	152
6	..	163	236	184
7	..	170	262	196
8	..	199	289	225
9	..	277	274	276
1920	..	281	280	281
1	..	239	228	236
2	..	245	201	232
3	..	224	193	215
4	..	222	217	221
5	..	233	211	227
6	..	225	195	216
7	..	209	185	202
8	..	212	171	201
9	..	216	170	203
1930	..	177	157	171
1	..	125	134	127
2	..	120	139	126
3	..	118	123	121

## II

## RETAIL PRICES OF FOOD-GRAINS.\* 1873=100

Year.	Wheat.	Jawar.	Bajra.	Gram.	Barley.
1861	.. 86	108	97	81	88
2	.. 73	93	86	65	55
3	.. 80	96	95	68	58
4	.. 102	118	124	86	71
5	.. 115	124	193	105	92
6	.. 129	131	119	126	94
7	.. 101	117	116	113	82
8	.. 96	115	118	117	94
9	.. 148	150	161	193	146
1870	.. 136	125	124	153	108
1	.. 90	96	107	109	85
2	.. 98	101	111	106	96
3	.. 100	100	100	100	100
4	.. 94	95	97	92	93
5	.. 81	90	89	80	82
6	.. 78	92	88	69	72
7	.. 102	134	128	92	88
8	.. 147	179	177	176	128
9	.. 153	160	160	177	140
1880	.. 118	112	117	127	108
1	.. 96	91	98	100	91
2	.. 101	91	99	93	86
3	.. 103	87	95	89	85
4	.. 91	93	94	88	86
5	.. 89	93	95	88	77
6	.. 103	109	108	94	85
7	.. 121	123	122	114	115
8	.. 123	127	137	123	126
9	.. 118	118	126	113	106
1890	.. 117	119	117	121	115
1	.. 137	134	136	131	130
2	.. 151	136	140	126	130
3	.. 127	120	121	112	112
4	.. 105	109	115	96	90
5	.. 116	119	117	118	111

\* These index numbers relate to all-India. See *Index Numbers of Indian Prices*.

## RETAIL PRICES OF FOOD-GRAINS. 1873=100—(Contd.)

Year.	Wheat.	Jawar.	Bajra.	Gram.	Barley.
6	.. 153	149	161	164	170
7	.. 266	211	204	246	206
8	.. 143	128	127	134	111
9	.. 140	133	138	138	122
1900	.. 176	207	196	206	174
1	.. 160	140	133	152	129
2	.. 142	131	131	132	127
3	.. 129	112	112	124	122
4	.. 123	108	107	107	103
5	.. 142	136	143	136	127
6	.. 155	172	173	168	154
7	.. 168	161	149	170	163
8	.. 226	218	204	252	218
9	.. 203	175	166	186	165
1910	.. 170	158	156	140	133
1	.. 153	156	160	131	131
2	.. 170	181	193	152	167
3	.. 177	188	184	170	174
4	.. 200	206	207	226	204
5	.. 227	201	212	220	212
6	.. 193	175	199	198	203
7	.. 205	193	188	197	190
8	.. 270	321	311	251	234
9	.. 341	437	434	396	319
1920	.. 310	344	333	359	277
1	.. 360	392	401	406	325
2	.. 315	287	318	328	277
3	.. 356	214	232	190	181
4	.. 246	239	239	195	207
5	.. 294	283	294	241	269
6	.. 281	295	310	274	276
7	.. 267	293	274	280	259
8	.. 264	253	257	295	272
9	.. 262	294	312	340	284
1930	.. 177	207	211	232	155
1	.. 126	134	126	148	112
2	.. 150	148	142	144	140
3	.. 151	145	151	148	144

III  
PRICE OF RICE

Year.	Price Index.	Ten yearly moving average (centred).	Deviations from moving average.
1861	..	90	..
2	..	75	..
3	..	79	..
4	..	96	..
5	..	128	..
6	..	155	+45
7	..	129	+18
8	..	110	-3
9	..	129	+14
1870	..	109	115
1	..	93	111
2	..	87	109
3	..	100	112
4	..	118	116
5	..	102	118
6	..	114	118
7	..	133	119
8	..	159	120
9	..	154	121
1880	..	121	124
1	..	96	126
2	..	96	126
3	..	110	125
4	..	135	123
5	..	137	124
6	..	128	128
7	..	123	135
8	..	131	141
9	..	148	145
1890	..	147	146
1	..	150	148
2	..	179	154
3	..	162	159
4	..	152	161
5	..	143	162
6	..	162	164
7	..	207	165
8	..	158	164
9	..	145	164

## PRICE OF RICE—(Contd. )

Year.	Price Index.	Ten yearly moving average (centred).	Deviations from moving average.
1900 ..	.. 171	166	+5
1 ..	.. 180	169	+11
2 ..	.. 165	172	-7
3 ..	.. 160	178	-18
4 ..	.. 147	187	-40
5 ..	.. 169	192	-23
6 ..	.. 209	194	+15
7 ..	.. 229	198	+31
8 ..	.. 254	206	+48
9 ..	.. 220	216	+4
1910 ..	.. 198	226	-23
1 ..	.. 199	231	-32
2 ..	.. 230	231	-1
3 ..	.. 255	229	+26
4 ..	.. 254	235	+19
5 ..	.. 246	251	-5
6 ..	.. 234	267	-33
7 ..	.. 215	280	-65
8 ..	.. 228	287	-59
9 ..	.. 357	294	+63
1920 ..	.. 376	303	+73
1 ..	.. 355	315	+40
2 ..	.. 326	329	-3
3 ..	.. 308	343	-35
4 ..	.. 335	348	-13
5 ..	.. 352	342	+10
6 ..	.. 359	329	+30
7 ..	.. 368	313	+55
8 ..	.. 357	297	+60
9 ..	.. 336	..	..
1930 ..	.. 273	..	..
1 ..	.. 189	..	..
2 ..	.. 175	..	..
3 ..	.. 152	..	..



## IV

## PRICE OF WHEAT

Year.	Price Index.	Ten yearly moving average (centred).	Deviations from moving average.
1861 ..	.. 86	..	..
2 ..	.. 73	..	..
3 ..	.. 80	..	..
4 ..	.. 102	..	..
5 ..	.. 115	..	..
6 ..	.. 129	107	+22
7 ..	.. 101	108	-7
8 ..	.. 96	111	-15
9 ..	.. 143	111	+37
1870 ..	.. 136	109	+27
1 ..	.. 90	105	-15
2 ..	.. 98	102	-4
3 ..	.. 100	105	-5
4 ..	.. 94	103	-14
5 ..	.. 81	108	-27
6 ..	.. 78	107	-29
7 ..	.. 102	107	-5
8 ..	.. 147	103	+39
9 ..	.. 158	103	+50
1880 ..	.. 118	103	+10
1 ..	.. 96	110	-14
2 ..	.. 101	112	-11
3 ..	.. 103	112	-9
4 ..	.. 91	103	-17
5 ..	.. 89	106	-17
6 ..	.. 103	103	-5
7 ..	.. 121	113	+8
8 ..	.. 123	117	+6
9 ..	.. 118	118	0
1890 ..	.. 117	120	-3
1 ..	.. 137	124	+13
2 ..	.. 151	131	+20
3 ..	.. 127	136	-9
4 ..	.. 105	138	-33
5 ..	.. 116	142	-26
6 ..	.. 153	147	+6

## PRICE OF WHEAT—(Contd.)

Year.		Price Index.	Ten yearly moving average (centred).	Deviations from moving average.
7	..	.. 206	147	+59
8	..	.. 143	147	-4
9	..	.. 140	148	-8
1900	..	.. 176	150	+26
1	..	.. 160	152	+8
2	..	.. 142	150	-8
3	..	.. 129	152	-23
4	..	.. 123	159	-36
5	..	.. 142	162	-20
6	..	.. 155	161	-6
7	..	.. 168	163	+5
8	..	.. 226	166	+60
9	..	.. 203	173	+30
1910	..	.. 170	181	-11
1	..	.. 153	187	-34
2	..	.. 170	191	-21
3	..	.. 177	195	-18
4	..	.. 200	204	-4
5	..	.. 227	218	+9
6	..	.. 193	235	-42
7	..	.. 205	253	-48
8	..	.. 270	269	+1
9	..	.. 341	280	+61
1920	..	.. 310	286	+24
1	..	.. 360	293	+67
2	..	.. 315	301	+15
3	..	.. 356	304	+52
4	..	.. 246	299	-53
5	..	.. 294	289	+5
6	..	.. 281	271	+10
7	..	.. 267	251	+16
8	..	.. 264	232	+32
9	..	.. 262	..	..
1930	..	.. 177	..	..
1	..	.. 126	..	..
2	..	.. 150	..	..
3	..	.. 151	..	..

## V

INDEX NUMBERS OF WHOLESALE PRICES IN CALCUTTA.\*  
 PRICES IN JULY, 1914=100

Year (annual average).	Cereals.	Raw cotton.	Cotton manufactures.	All commodities.
1915	.. 116	89	97	112
6	.. 106	121	134	123
7	.. 91	174	203	145
8	.. 103	309	298	176
9	.. 161	230	295	196
1920	.. 153	152	325	202
1	.. 144	143	230	179
2	.. 136	191	239	176
3	.. 112	244	221	172
4	.. 121	272	228	173
5	.. 135	205	210	159
6	.. 139	147	173	148
7	.. 139	167	159	148
8	.. 133	167	159	145
9	.. 125	146	160	141
1930	.. 100	91	139	116
1	.. 78	83	123	96
2	.. 68	92	119	91
3	.. 66	80	113	87
4	.. 69	73	115	89

\* See *Indian Trade Journal*.

## CHAPTER VIII

### CURRENCY AND EXCHANGE

#### 1. INDIAN CURRENCY, 1835—1897

The rupee was established as a standard coin throughout the territories belonging to the East India Company in 1835. Before that date a great variety of gold and silver coins circulated in different parts of the country, silver rupees being used chiefly as standard money, while the value of gold coins depended upon the market price of gold. The circulation of several denominations of coins in the country caused great inconvenience to the trading community and to the Government, and we find the Court of Directors, in their Despatch dated 25th April, 1806, approving the recommendations of their officers in India "for the adoption of one general system for the formation of the coins for the currency of the whole of our possessions on the continent of Asia," for they were "fully satisfied the evils complained of can only be removed by the introduction of a gold and silver coinage of one weight and fineness, such coin to become the universal measure of value for British India."\*

No less than 27 varieties of rupees were current in Bengal, and in the Punjab, before the time of Ranjit Singh, currency conditions were not less chaotic. Ranjit Singh closed all the mints except those at Lahore and Amritsar, where the Nanakshahi rupee was

\* *East Indian Currency*, No. 127, para. 4.

first coined. The Nanakshahis were "the national currency" of the Punjab. They were divided into three series, called the *porane*, coined from 1796 to 1814; the *chulme*, coined from 1814 to 1824; and the *chilte*, coined after 1824. The *porane* circulated at a discount with the *chulme* and the *chulme* at a discount with the *chilte*. All three were at a discount with the Company's rupee, in spite of their greater intrinsic value. The artificial value given to the Company's rupee over the *porane* and the *chulme* was due to the fact that neither of those coins was received at the British treasuries.\*

About the same time 15 coins, in addition to the Company's rupee, were current in Rajputana, and they were "as much a marketable article as opium, cotton, or any other staple of commerce."†

The Act No. XVII of 1835 made the silver rupee of 180 troy grains, eleven-twelfths fine, the standard throughout British India. The weight and the fineness of the rupee have remained unaltered since 1835.

### THE POSITION OF GOLD IN THE CURRENCY

By section 9 of the Act of 1835 it was enacted that "no gold coin shall henceforward be a legal tender for payment in any of the territories of the East India Company." The Court of Directors, however, in the Despatch of 1806 had stated that "it is not by any means our wish to introduce a silver currency to the exclusion of the gold, where the latter is the general measure of value, any more than to force a gold coin where silver is the general measure of value."‡

\* *Papers Relating to (East India) Coinage, 1860 (No. 254), p. 24.*

† *Ibid.*, p. 29.

‡ *Para. 22.*

In para 16 of the Despatch they clearly defined their attitude towards the use of gold as currency:—

“Although we are fully satisfied of the propriety of the silver rupee being the principal measure of value and the money of account, yet we are by no means desirous of checking the circulation of gold but of establishing a gold coin on a principle fitted for general use. This coin, in our opinion, should be called a gold rupee and be made of the same standard as the silver rupee, *viz.*, 180 troy grains, gross weight, and 165 troy grains, fine gold, also divided into halves and quarters, so that the coins of both gold and silver should be of the same denomination, weight and fineness.”

In view of this pronouncement it is difficult to understand why the gold pieces coined under the Act of 1835 were deprived of the legal tender quality. By a proclamation issued in 1841 officers in charge of public treasuries were authorised to receive the gold coins struck under the provisions of the Act of 1835 at their denominated value, until they should have passed a certain limit of lightness, when they were to be taken as bullion only, by weight. It is also not clear what was the precise object in requiring public treasuries to receive gold coins which were no longer legal tender. It was certain that so long as the market price of gold exceeded the denominated price of the coin in silver, no gold would be brought to the Government, but if the market price of gold fell below the silver denomination of the coin, gold would accumulate in Government treasuries and this gold could not be used by Government in making payments to the public as it was not legal tender. Such was actually the result of the proclamation of 1841. In a letter to the Court of Directors, dated 2nd July 1852, the Government of India pointed out that there was 30

lakhs of rupees worth of gold in Government treasuries which was of no use to them.

The Government of India proposed that the proclamation of 1841 should be withdrawn. The Court of Directors agreed with the Government that it was important at once to check the receipt of gold into the Indian treasuries, but they pointed out that the proclamation of 1841 was not intended to bear the interpretation which the Government had given to it. By a notification issued in December, 1852, it was declared that beginning with January, 1853, "no gold coin will be received on account of payments due, or in any way to be made, to the Government in any public treasury within the territories of the East India Company." Gold, however, continued to be received into the mint for coinage under the Act of 1835.

While the action taken by the Government tended to discourage the use of gold as currency, the fall in its price, consequent upon the discoveries of gold in Australia and California, considerably increased the demand for gold. Memorials were submitted to Government by various Chambers of Commerce praying for the introduction of a gold currency. The more important proposals made with a view to encourage the use of gold as currency were: (1) the introduction of the sovereign or some other gold coin which should circulate at its market price from day to day measured in silver; (2) the introduction of the English sovereign as legal tender for ten rupees, but limited in amount to 20 rupees; and (3) the change of the monetary standard from silver to gold, silver tokens to be used as subordinate coins. These proposals were examined by

Mr. James Wilson in a minute entitled "Proposals to introduce a Gold Currency in India," dated 25th December, 1859. He thought, and rightly, that a gold coin, whose value as measured in silver was fluctuating from day to day, could not be used as currency. To the proposal to permit the circulation of the sovereign as legal tender to a limited extent of 20 rupees his objection was that the sovereign would not circulate so long as its value was above the ratio at which it was made legal tender, and that every effort would be made to force it into circulation if its value fell below that ratio. The result would be that those who received the sovereigns in payment of small sums (railway companies and small dealers, for example), would not be able to use them in making large payments without risk of loss. This objection did not apply to a change in the standard from silver to gold, and Mr. Wilson admitted that if Government "had to begin *de novo*, convenience would point to a gold standard with silver tokens as the best." But he thought that in a country where all obligations had been contracted to be paid in silver, to change the standard from silver to gold, because gold had depreciated, would be to defraud the creditor for the advantage of the debtor and to break public faith. His view was that a well-regulated paper currency was more desirable than gold in circulation, and he submitted his proposals for a Government paper currency in a separate minute.

To James Wilson's plan for a paper currency it was objected that the people of India would be slow to appreciate the advantages of paper money as from time im-



memorial they were accustomed to the use of money of intrinsic value.

The case for the introduction of gold into circulation in India was ably argued by Sir Charles Trevelyan in a minute dated 20th June, 1864. Information collected by Sir Charles Trevelyan from all parts of India showed that there was a general desire for the introduction of gold coins in India; that the people of India were well-acquainted with the sovereign; and that there was every reason to think that the introduction of the sovereign would be well received and that it would circulate freely at 10 rupees. The Secretary of State, however, did not think it advisable to make the sovereign legal tender, but as an experimental measure he suggested that the sovereign and the half-sovereign should be received into and paid out of public treasuries in India for ten and five rupees respectively, and effect was given to this proposal by a Government notification in November, 1864. But the rate of ten rupees to the sovereign was below the market value of the sovereign, and therefore it failed to attract sovereigns to Government treasuries. The rate was raised to Rs. 10-4 for the sovereign and Rs. 5-2 for the half-sovereign in October, 1868. Shortly afterwards the gold price of silver began to fall, which entirely changed the Indian currency situation, and the Government of India adopted the following Resolution on the subject of a gold currency on 7th May, 1874:—

“The expediency of introducing a gold currency having been considered, the Governor-General in Council is not at present prepared to take any step for the recognition of gold as a legal standard of value in India.”

## THE FALL IN THE GOLD VALUE OF SILVER

The fall in the gold value of silver commenced in 1873, and by 1893 it amounted to 40 per cent.

Expert opinion was divided as to the causes of the fall. On the one hand it could not be denied that the production of silver had increased. The demand for silver had, at the same time, decreased owing to (a) the cessation of free coinage of silver in Germany, the Latin Union and Holland, and (b) diminution in the Indian demand for silver caused chiefly by increase in the sale of Council bills. It would, therefore, appear that the change in the relative values of the precious metals was due to causes affecting silver. On the other hand, there is a good deal of evidence to show that during the whole period, 1873—1893, gold was appreciating owing to causes affecting gold itself—decreased production and increased demand for industrial and monetary purposes. If the purchasing power of gold and silver in terms of commodities is considered, it is found that the fall in the gold value of silver far exceeded the fall in the value of silver as measured by purchasing power over commodities either in China or in India, while the purchasing power of gold over commodities in England increased very considerably. The movements of gold and silver prices unmistakably show that the change in the relative values of the precious metals was primarily due to the appreciation of gold, not depreciation of silver.

Whatever be the causes of the fall in the gold value of silver, its effect on Indian finance was most serious. The Home Charges amounted then to about £15,000,000 annually. The Home Charges represent a sterling obliga-

tion of the Government of India, while the revenues of the Government are collected in silver. Every fall in the gold value of the rupee thus meant a real addition to the burden of the Home Charges.

In a note dated 13th July, 1876, R. B. Chapman, Secretary, Financial Department of the Government of India, pointed out that from 15½ times gold had risen to be worth about 20 times its weight in silver, and that the fall in exchange to 1s. 7d. had made it necessary for the Government to find 2 crores of rupees annually in excess of what they had at their disposal. "The task," he wrote, "is formidable enough to cause dismay. It will be requisite to give up all administrative luxuries and even some necessaries. . . Resort must, moreover, be had even to new taxation. But a loyal and combined effort must be made. I see no way of escape from the painful exigency."

Any considerable increase in taxation, however, was not practicable for political reasons and the situation was one of great difficulty.

Apart from increasing the burden of the Home Charges, the fall in exchange tended to check the investment of foreign capital in India and lowered the gold value of the salaries, paid in rupees, of the European employees of the Government. It also made foreign trade a gamble in exchange.

In view of the ultimate establishment in India of the gold exchange system it is interesting to learn that as early as 1876 it was proposed to secure stability of exchange by closing the mints to the coinage of silver and giving the rupee an artificial gold value. The main features of this plan were described in a letter by Major-General Richard Strachey to the Editor of the *Pall Mall Budget*, dated 10th August, 1876. It was suggested that the mints should be closed to

the free coinage of silver and the rupee coinage placed entirely under the control of the Government; that as a temporary arrangement the mint should be opened for gold; and that the gold value of the rupee should be fixed at about 1s. 11d. and notes issued against gold at fixed rates.

The authorities in India did not appreciate the novel idea of establishing a gold standard with a currency mainly composed of token silver rupees issued by the Government. Major-General Strachey's letter called forth a spirited reply\* from R. B. Chapman, and in their Despatch to the Secretary of State, dated 13th October, 1876, the Government of India expressed their views on the proposal in no uncertain terms.\*

\* "I am astounded that you should propose such a tremendous heresy as a *permanent* divorce between the standard and the currency. Surely this is nothing in the world but an inconvertible currency, limited, it is true (though I observe that you would not even *limit* it absolutely), but still *inconvertible*. If we are to go in for an inconvertible currency, why should we go the useless expense of having it in *silver*; surely it would be only commonsense to go to *paper* at once? I have seen plainly that we must go through a period of inconvertible currency of silver with a gold standard; but I have always looked upon this as an evil of the first magnitude from which we should use every exertion to escape at the very earliest opportunity. It startles and staggers me that you should say that such a man as yourself, to say nothing of the rest of the powers that be at the India Office, should have been seduced into thinking otherwise for an instant. . . . Have you not altogether underrated the volume of our silver currency too? A true silver subsidiary currency must I maintain, be treated as a note currency, *i.e.*, it must be issued only in exchange for gold, and the State should be compelled to give gold for it, at convenient centres, on demand, everywhere. Only on these conditions will a silver subsidiary coinage be on a really sound footing; and upon this footing even India will not want, I believe, more than 30 crores at the outset if indeed she wants as much. You cannot seriously think we could for a *permanency* avoid calling in the 170 crores of rupees that we should have in excess of our wants. Nor can I seriously believe that an accurate thinker like yourself would deliberately consent to entrust to any Government on earth the power to issue *token coinage* at its discretion to *pass as full legal tender*. No human Government has yet existed who could be trusted with such a power."

\* "We are thus quite aware that our standard of value might be enhanced without any immediate change in the body of our currency; and

The Government of India favoured the settlement of the silver question by international agreement, but they were of opinion that if an international conference failed to arrive at a satisfactory decision regarding silver, it would be necessary to stop the free coinage of silver and introduce a gold standard with a gold currency in India. An International Monetary Conference was convened at Brussels in 1892, but it suspended its labours on December 17, without coming to any definite conclusions. It was to meet again on 30th May, 1893, if the various Governments which were represented in it approved. But it never met again. A month before the meeting of the Brussels Conference the Secretary of State for India had appointed a Currency Committee, presided over by Lord Herschell, to consider the proposals of the Government of India. The Committee accepted these proposals with some modifications. Acting on the advice of the Herschell Committee the Government closed the mints to the free coinage of silver by Act No. VIII of 1893, passed on 26th June, 1893. On the same date three notifications were issued, the first providing for the issue of rupees in exchange for gold presented at the Indian mints at the rate of 16*d.* to the rupee; the second authorising the receipt of sovereigns and half-sovereigns by the Government in payment of taxes and other Government dues at 16*d.* to the rupee; and the third providing for the

that we might, for a time, enjoy many of the advantages of a gold standard, without undergoing the expense of introducing a gold currency. But we wholly distrust the advice and conclusions of those who think that such a state of things could be tolerated permanently, or even for any considerable length of time: in other words, that we could introduce an enhanced standard, and yet, indefinitely, escape the obligation to introduce an enhanced currency."

issue of currency notes in exchange for British gold coin or gold bullion at the same rate.

### FOREIGN TRADE, 1873—95

By itself a fall in exchange tends to check imports and to stimulate exports. The imports are checked because the fall in exchange increases the cost, as measured in rupees, of the imported articles and reduces the profit of the importer, unless rupee price can be raised proportionately. Exports are stimulated (other things being equal) because the same gold price received for goods sold abroad means a higher rupee price. But any serious check to imports must react on exports. Further, it is contended that the producer or exporter makes a gain only at the expense of other classes of the community, particularly the labourers, and only so long as wages and other elements of cost do not rise. In a Despatch to the Secretary of State, dated 9th November, 1878, the Government of India considered it doubtful whether the fall in exchange had exercised any beneficial effect at all on the trade of India; they also pointed out that the effect of the fall had been much obscured by seasons of extreme drought, commercial depression and political troubles.

During the whole period of falling exchange (1873—95) imports into India increased by a larger percentage than exports. The total value of imports of private merchandise in 1873-74 was 31,62 lakhs and of exports, 54,96 lakhs. In 1894-95 imports had risen to 70,16 lakhs, or 122 per cent, and exports to 108,81 lakhs, or 98 per cent. The greater expansion of the import trade

as compared with the export trade is explained by the very considerable fall in gold prices which occurred during this period. It would also seem that while a stable exchange is an undoubted convenience to trade, a country's foreign trade may prosper in spite of a fluctuating exchange.

The 16*d.* rate had been chosen as it represented the exchange value of the rupee in the years immediately preceding the closing of the mints to the coinage of silver. Government hoped to prevent a fall in exchange below 16*d.* by "starving the circulation." If, while population is increasing and trade is expanding, the growth of the currency is restricted, the effect would be to reduce the volume of the currency in relation to trade. The closing of the mints was, however, followed by a further fall in exchange, and the fall continued until the rupee touched its lowest point, 12 $\frac{5}{8}$ *d.* in January, 1895. This was due to several reasons. (1) Some 20,000,000 rupees were coined by Government immediately after the closing of the mints. This represented silver received from banks and others shipped to India before the closing of the mints. (2) Many millions of rupees were imported into British India, where the face value of the rupee was greater than its intrinsic value, from the Native States. (3) Rupees also came out of hoards. (4) There was an increase in the net circulation of notes, as can be seen from the following figures:—

## NET CIRCULATION ON 31ST MARCH

			Lakhs of rupees.
1892-93	..	..	.. 26,40
1893-94	..	..	.. 30,41
1894-95	..	..	.. 30,70

(5) Finally, the Council bills sold by the Secretary of State in 1894-95 amounted to about £17,000,000 as compared with £9½ millions sold in the preceding year. The effect of the increase in the sale of Council bills was to reduce the cash balances in the Government treasuries and to increase the number of rupees in circulation.

Having reached its lowest level in January, 1895, the exchange value of the rupee began to rise, and in the latter part of 1897 it nearly touched 16*d*. The years 1895 to 1898 were a period of the appreciation of the rupee in terms of gold. The exchange value of the rupee was now completely divorced from its bullion value and fluctuated independently of the price of silver.

In August, 1897, the Government of India were asked by the Secretary of State whether they were in favour of re-opening the Indian mints to silver if France and the United States of America opened their mints to silver as well as gold. The Government of India saw no very good reasons for adopting the course suggested. They pointed out that the return to silver monometallism would cause an intense disturbance of trade, and in case the experiment failed, the whole cost of failure would have to be paid by India alone. Further, international bimetallicism could not succeed without the co-operation of the United Kingdom, and since the United Kingdom was not prepared to change her monetary standard, the best possible course for India was to link her currency system with that of the United Kingdom, the country with which her trade and financial connections were most intimate. The Government of India finally declined to give the undertaking desired by France



and the United States. In view of the fact that their currency policy had succeeded in arresting the fall in exchange, their objection to re-opening the mints to the coinage of silver, which meant a reversal of their policy, was well-founded.

## 2. INDIAN CURRENCY, 1898—1914

On 3rd March, 1898, the Government of India sent a communication to the Secretary of State urging the establishment of a gold standard in India. The time had arrived, they said, to put an end to the uncertainty and fluctuations of exchange. This communication led to the appointment of the Fowler Committee. At the time when the Despatch of 3rd March was written the exchange value of the rupee was still somewhat less than 16*d.* The Government of India proposed to raise exchange by reducing the volume of the silver circulation and replacing the silver withdrawn from the circulation by gold. The circulation was to be reduced by melting down rupees.\*

\* "The mere reduction of circulation might be carried out in the same way in which it was effected in 1893, namely, by abstaining from drawing Council bills, until we have an accumulation of, say, twenty crores in excess of our ordinary balances. But this procedure would be both costly, and, as we believe, ineffective; in the first place, the permanent locking-up of twenty crores of rupees would cost us in the interest on that amount, or on the amount of gold borrowed in England during the suspension of drawings, and in the second place, the existence of this accumulation of silver coins would be a perpetual menace to the exchange market, and would entirely prevent any confidence in the future of the rupee. We must not only withdraw the amount from circulation, but we must show by the method we adopt that our intention is that it should cease to exist in the form of coin, and that its place as coin is to be taken by gold. Our proposal is therefore to melt down existing rupees, having first provided a reserve of gold both for the practical purpose of taking the place of the silver, and in order to establish confidence in the issue of our measures." (*East India Currency*, c. 8840, p. 6.)

The Fowler Committee rejected the proposal to melt rupees, but before the Committee made its report the rupee had risen to 16*d.*, and the Government of India themselves, in the altered circumstances, would not have recommended that measure. The main recommendations of the Fowler Committee were that the sovereign and the half-sovereign should be declared legal tender throughout India at 15 rupees per sovereign, and that a gold standard with its "normal accompaniment," a gold currency, should be established in India. The Committee also recommended that "fresh rupees should not be coined until the proportion of gold in the currency is found to exceed the requirements of the public," and that "any profit on the coinage of rupees should be kept in gold as a special reserve, entirely apart from the Paper Currency Reserve and the ordinary Treasury balances."

The reserve was to be used for maintaining the exchange value of the rupee.

The Lindsay scheme for the introduction of a gold standard without a gold currency was rejected by the Fowler Committee.

The Government of India accepted the recommendations of the Committee. The sovereign was declared legal tender, the Gold Standard Reserve was instituted, and active steps were taken to encourage the use of gold as currency. Arrangements were also made for the coinage of gold in India, but the scheme was dropped when it was nearly complete in 1902.

## THE GOLD EXCHANGE STANDARD

Though the Government of India fully intended to carry out the recommendations of the Fowler Committee, the Indian currency system did not develop along the lines recommended by that Committee. The main features of our pre-War currency system were essentially those of Mr. Lindsay's scheme.

The central idea of the gold exchange system is that gold is not required for internal circulation but for the payment of international indebtedness. For maintaining exchange it is, therefore, sufficient if the national currency is convertible into gold at a constant rate for meeting sterling obligations abroad. When Council bills were sold in London, gold was deposited in the reserves kept there and rupees were issued in India. The circulation contracted when bills were sold in India to meet an unfavourable balance of trade. The Gold Standard Reserve, (Mr. Lindsay's "Gold Conversion Fund") was kept in London, as gold is required for the settlement of the balance of India's foreign indebtedness, and London is an important centre for the settlement of international indebtedness.

These are the main features of Mr. Lindsay's scheme. Several objections were raised against the scheme. The Government of India in their Despatch of 3rd March, 1898, gave as one of their main reasons for deciding not to adopt the scheme that it would involve them "in a liability to pay out gold in London in exchange for rupees received in India to an indefinite extent."\* Mr. Lindsay's reply to

\* *Para. 28 of the Despatch.*

the objection was that Government would be involving themselves in a greater liability by undertaking to give gold in India. A second objection to the scheme was that the location of the Gold Standard Reserve in London would excite distrust and suspicion. "A gold reserve," said Sir James Westland in his memorandum on the scheme, "intended to support the introduction and maintenance of a gold standard in any country ought to be kept in the country if it is to produce its full effect in the way of establishing the confidence which is almost indispensable to the success of the measure."\* Mr. Lindsay, however, thought that the foreign capitalist would have greater confidence if the reserve was kept in London. "It is only people who send out capital to India that are concerned in this matter, the people who work with local capital in India will be very much in the same position as they are at present. The token rupees are all they want."†

The chief difference between Mr. Lindsay's plan and the measures proposed by the Government of India was that the former provided for the contraction and expansion of the currency by the withdrawal of rupees from, and the issue of rupees into circulation, while the latter recommended the adoption of the principle of free in-flow and out-flow of gold. If there was no fresh coinage of rupees, the demand for additional currency caused by the growth of trade would be met by the issue of gold coins; if at another time the currency became redundant, the excess would be got rid of by the exportation of gold. Mr. Lindsay's plan, it was also pointed out, invested the Government with some degree of control over the volume of the rupee currency, for new rupees were to be coined from bullion bought at the discretion of the Government. "This is not a feature

\* *East India Currency*, c. 8840, p. 18.

† *Evidence before the Fowler Committee*, Q. 4057.

of the plan," wrote Sir James Westland, "that can commend itself in principle, for the regulation of the sole full legal tender currency of a country should be entirely automatic and not in any degree dependent upon the discretion of the Administration."\*

The chief matters of interest in our currency history in the first decade of the 20th century are the investment of the Gold Standard Reserve in securities in London; the formation in India in 1906 of a rupee reserve as part of the Gold Standard Reserve; the diversion in 1907 of profits on the coinage of rupees for capital expenditure on railways; and the sale of sterling drafts by the Government of India in the exchange crisis of 1907-08.

In 1905, and again in 1906, some difficulty was felt in meeting the demand for rupees in India, and this led to the formation of a special rupee reserve which could be utilised for preventing exchange from rising above 1s. 4d. At first the reserve was held inside the Paper Currency Reserve in the form of silver ingots and then in partly coined rupees, but in 1906 it was decided to hold it in the form of coined rupees only. As the reserve was needed for preventing the rupee from rising to a premium over 1s. 4d., its name was changed to the Gold Standard Reserve, which now consisted of two portions, one held in the form of sterling securities in London, and the other in rupees in India. The rupee branch, like the sterling branch of the Reserve, consisted of the profits on the coinage of rupees.

In 1907 a Railway Committee appointed by the Secretary of State recommended that £1,000,000 out of the

\* *East India Currency*, c. 8840, p. 20.

profits on the coinage of rupees in 1907 should be devoted to improvements for Indian railways. The Secretary of State went further than the Committee and decided that for the future one-half of any profits on the coinage of rupees should be used for capital expenditure on railways until the Gold Standard Reserve reached £20,000,000. It was intended that after that total had been reached, the whole of the profits on silver coinage should be diverted from the Reserve. The Government of India, however, thought that the sterling portion of the Reserve should be allowed to accumulate to £20,000,000 before any sums were diverted from it. In reply to a communication from the Government of India on the subject the Secretary of State said, "The danger which you allege of a fall in exchange I regard as illusory, having regard to the present conditions of trade, the amount of securities in the Gold Standard Reserve and of gold in the Currency Reserve."\* He adhered to his decision and used £1,123,000 of the profits of coinage for railway capital expenditure.

But the danger of a fall in exchange was not illusory. A severe financial crisis in America in the autumn of 1907 and the consequent monetary stringency in the money markets of the world, combined with the failure of the summer monsoon in India in 1907, caused Indian exchange to fall suddenly in November. The Exchange Banks asked Government to sell telegraphic transfers on London at 1s. 4d. per rupee, but the Government, after consulting the Secretary of State, refused. The Government also refused

\* *Report of the Chamberlain Commission, Para. 36.*

to give gold for export from the Paper Currency Reserve in larger quantities than £10,000 to any one individual in one day. The exchange continued to fall and on November 23 it fell to 1s. 3 23/32d. Indian importers began to buy British Postal Orders for £10,000 and other large sums as a means of making sterling payments, and then at the instance of the Secretary of State the Government of India began to give gold for export. The Government also informed the Exchange Banks on 27th December that, should it become necessary, they would offer for tender in India sterling exchange on London. On 26th March, 1908, sterling bills were first sold in India, and they continued to be sold till 11th September, 1908. In all £8,058,000 was withdrawn during this period from the Gold Standard Reserve to meet the bills.

The crisis of 1907-08 showed that strong gold reserves were essential for the maintenance of exchange. During the crisis £4,179,000 was withdrawn by the public from the Paper Currency Reserve, while only £250,000 was exported on private account. Another lesson taught by the crisis was "the desirability of formulating in advance and giving publicity to the policy which it is intended to pursue in a crisis." "It is almost as important," wrote the Chamberlain Commission, "that the general public should have confidence in the determination of the Government effectively to use their resources to maintain the rupee at 1s. 4d. as it is that the Government should have the necessary resources for so doing."\*

\* Para. 52 of the Report of the Chamberlain Commission.

## THE CHAMBERLAIN COMMISSION

The Chamberlain Commission was appointed in April, 1913, to consider, among other matters, "the measures taken by the Indian Government and the Secretary of State for India in Council to maintain the exchange value of the rupee in pursuance of, or supplementary to the recommendations of the Indian Currency Committee of 1898, more particularly with regard to the location, disposition and employment of the Gold Standard and Paper Currency Reserves." The Commission approved of the measures adopted by the Government in order to maintain the exchange value of the rupee, though these measures were "less in pursuance of the recommendations of the Committee of 1898 than supplementary to them." This is shown by the fact that the Government abandoned the attempt to encourage the use of sovereigns in India, and kept the Gold Standard Reserve in London for the support of exchange. The Commission were not in favour of introducing a gold circulation in India. "The establishment of the gold value of the rupee on a stable basis," they wrote, "has been and is of the first importance to India."\* Gold in actual circulation is of little use for the support of exchange. Further, they tried to show that the attempt to encourage the circulation of gold would necessarily weaken the gold reserves of the Government, and thus make it difficult for Government to maintain exchange in a time of crisis. To the objection that without gold in active circulation India's currency system would remain a "managed"

\* Para. 76 of the Report.



system, their reply was that there was no "essential difference between the power to import sovereigns at will and the power to have gold coined into sovereigns in India." They finally concluded that "It would not be to India's advantage to encourage the increased use of gold in the internal circulation." In paragraph 76 of their report, the Commission said:—

"To sum up, our view is that India neither demands nor requires gold coins to any considerable extent for purposes of circulation (as opposed to saving or hoarding), that the most generally suitable media of internal circulation in India are at present rupees and notes, and that the Government should, as opportunity may offer, encourage notes, while providing—and this is the cardinal feature of the whole system—absolute security for the convertibility into sterling of so much of the internal currency as may at any moment be required for the settlement of India's external obligations."

As regards the Gold Standard Reserve the Commission did not fix any limit up to which the Reserve should be accumulated. They recommended that the profits on the coinage of rupees should, for the present, continue to be credited exclusively to the Reserve and that Government should aim at keeping one-half of the total Reserve in actual gold. The rupee branch of the Reserve they considered to be "responsible for much confusion and doubt as to the efficiency of the Reserve" and they recommended its abolition. They did not consider it necessary that the use of the Reserve should be regulated by statute. "But we advise," they said, "that the Government should make a public notification of their intention to sell bills in India on London at the rate of 1s. 3 29/32*d.* whenever they are asked to do so (as was actually done in 1903 and

confirmed in 1909), to the full extent of their resources. We believe that the knowledge that such exchange can be purchased at any time will do much by itself to inspire confidence, and so to reduce the actual demand for drafts on London, and to prevent that feeling of panic which is liable to accompany and to aggravate periods of financial strain. With the Reserve for the support of exchange so strong as it will, we hope, prove, if our recommendations are accepted, we do not think that there is any reason to fear that in undertaking this liability the Government of India would be in any danger of being unable to carry out their obligation."

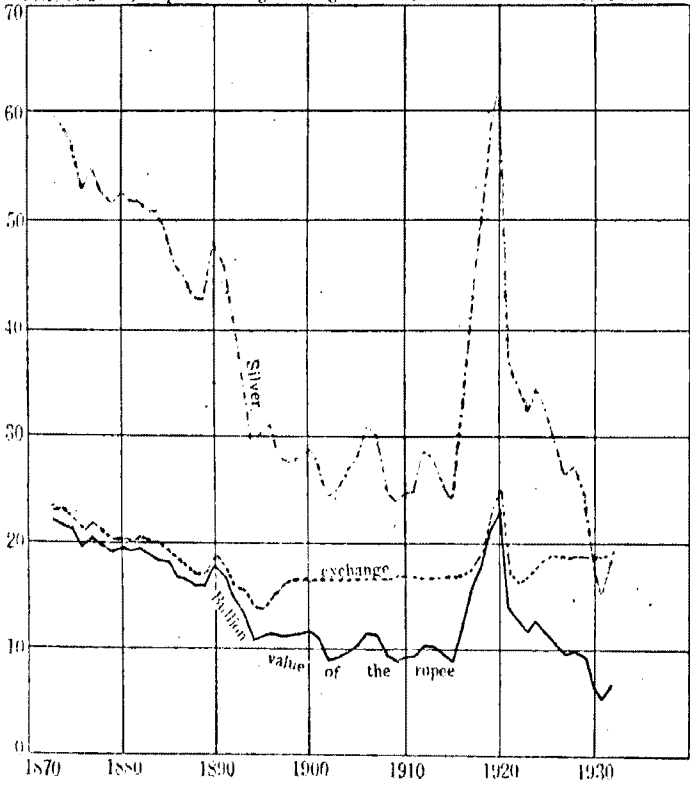
Only partial action could be taken by the Government on the Report of the Chamberlain Commission, as the War broke out shortly after the publication of the Report in 1914. Government issued a notification in 1914 guaranteeing to issue sterling drafts on the Secretary of State in London. The silver branch of the Gold Standard Reserve was also abolished in 1914 by the transfer of 6 crores of rupees held in the silver branch to the Paper Currency Reserve for an equivalent amount of gold.

### 3. INDIAN CURRENCY 1914—1920

Having learnt in the crisis of 1907-08 how to use their gold reserves for the support of exchange, Government were fully prepared to meet the weakening of exchange which was the immediate result of the outbreak of war. Between 6th August, 1914, and 28th January, 1915, Reverse bills were sold to the extent of £3,707,000. Reverse bills were again sold in 1915-16 (£4,893,000) and

PLATE No. 19

Price of Silver, Rupee—Sterling exchange and the Bullion value of the rupee 1873—1932



between November, 1918, and April, 1919 (£5,465,000). Apart from these temporary periods of weakness, our currency troubles during the greater part of the War were due, not to a falling rupee, but to a rupee whose exchange value rose to unexpected and unprecedented heights.

A gold exchange system is an artificial system in the sense that the rate of exchange under this system does not depend upon the intrinsic value of the silver coin. Before 1893, every fall in the price of silver reduced the exchange value of the rupee, but during the whole period between 1899 and 1916, the fluctuations in the price of silver exercised no influence upon the course of the rupee exchange. Exchange rose and fell according to the supply of, and the demand for foreign bills. The exchange value of our rupee was thus completely divorced from its bullion value.

But it should not be supposed that as soon as a country has conferred an artificial gold value upon its silver coin, the market price of silver becomes a matter of indifference. Violent fluctuations in the price of silver in either direction would destroy the system, or make it impossible to work. The essential feature of a gold exchange system is the use, for purposes of internal circulation, of a token coin which is convertible into gold for foreign remittances at a more or less constant rate. When a token coin ceases to be a token coin, on account of the rise in the value of its metallic content, the gold exchange system automatically ceases to exist. It thus appears that the existence of the gold exchange system and its successful operation depend upon steadiness in the value of silver. For the

purposes of the gold exchange system it is comparatively a matter of indifference whether the ratio of silver to gold is high or low, but it is not a matter of indifference whether the ratio is steady or subject to frequent and violent changes.

This aspect of the question was duly considered by the American Commission on International Exchange of 1903. In the arguments submitted by the American Commission to the foreign Commissions there was a whole section devoted to "Considerations regarding the price of silver." "Whether the absolute price of bar silver be high or low," wrote the American Commission, "is a matter of comparatively slight importance, inasmuch as the ratio could be fixed to correspond, provided the price remains steady; but if after a ratio had been once fixed, the price were to increase decidedly (so that the bullion value of coins exceeded their nominal value) the coins would be melted down and the system would be destroyed. On the other hand, if the price of silver were to fall very low, the burden of maintaining the parity would be heavier, inasmuch as a larger gold reserve fund might be required to maintain confidence. It is extremely desirable, therefore, especially for the countries that are somewhat weak financially, that the price of silver bullion should remain steady at a point somewhat near the ratio agreed upon."\*

In India attention had been concentrated on devising means for preventing the rupee from falling below a certain level. The possibility of a rise in the rupee much above its gold parity was never seriously considered by Government or any one else. This is certainly curious in view of the fact that the rise in the price of silver in 1906-07 caused the gold exchange system of several countries to collapse, though it did not affect us.

\* *Stability of International Exchange, Washington, 1903, p. 124.*

The rise in the price of silver in September, 1917, to 55*d.* put an end to our gold exchange system. The rupee ceased to be a token coin—there was profit in melting and exporting it. As the price of silver continued to rise, the maintenance of the old ratio, 16*d.* to the rupee, became impossible. The rise in the cost of production of the rupee compelled the Secretary of State to raise the price of rupees. The minimum rate for Immediate Telegraphic Transfers, which on 28th August, 1917, had been fixed at 1*s.* 5*d.*, was raised to 1*s.* 6*d.* on 12th April, 1918, 1*s.* 8*d.* on 13th May, 1919, 1*s.* 10*d.* on 12th August, 2*s.* on 15th September, 2*s.* 2*d.* on 22nd November and 2*s.* 4*d.* on 12th December, 1919.

A contributory cause of the rise in exchange was the strong demand for rupees due to the heavy balances of trade in India's favour. But even without the assistance of the favourable balances of trade the rise in the price of silver was sufficient to destroy our system. If the rise had occurred, not during the war but before the war, the collapse of the gold exchange system would have been as complete as it was during the war. It should be recognised that the collapse of the gold exchange system was due, not so much to war causes, as to the simple fact that the price of silver rose above the bullion par of the rupee.

When the price of silver rises so that the intrinsic value of the token coins exceeds the face value, the gold exchange system can be re-established either by raising the gold par or by debasing the token coins. The majority report of the Babington Smith Committee, appointed by the Secretary of State in May, 1919, to consider the Indian currency situation,

recommended the raising of the exchange value of the rupee to 2s. (gold). The chief objection to the reduction in the weight or fineness of the rupee was that it would "react gravely on the credit of the Government and possibly lead to serious social and economic consequences."\* The 2s. rate was chosen as the Committee believed that if the exchange value of the rupee was fixed at a figure lower than this, the rupee could not be established as a token coin. The price of silver throughout 1919 was high and in February, 1920, it reached the high water-mark of 89½*d.*, and it seemed probable that for many years to come it would remain at a high level. Recoinage being impossible, a stable gold exchange standard could be ensured only by raising exchange, and raising it enough to make the rupee safe from the melting pot.

Indian press comment on the recommendations of the majority report of the Babington Smith Committee was unfavourable. The effect of a high exchange in stimulating imports was one of the chief grounds of objection to raising the exchange value of the rupee.

In so far as a high exchange encouraged imports, it would favour the British manufacturer at the expense of his Indian rival. "High exchange," said Mr. Ainscough, "places the British manufacturer in a more favourable condition *vis-a-vis* his competitor in India. On the whole, therefore, his material interests would appear to be best served by the fixation of exchange at as high a rate as may be possible under the circumstances."†

\* Para. 33 of the Report.

† P. 38 of Mr. Ainscough's *Report on the Conditions and Prospects of British Trade in India at the close of the War.*

The report of the Indian Currency Committee was well-received by the British press, as may be judged from the following extract from an article on "Trade and the New Rupee Basis" in the *Times Trade Supplement* of February 7, 1920.

"Apart from the possibilities of international action, the hope of arresting sterling depreciation lies in increasing production in the United Kingdom, with consequent large shipments abroad, so that our former position as a creditor country may be ultimately restored. The immediate effect of the new sterling rate of rupee exchange should be that of stimulating our exports to India, while restricting our purchases therefrom. The report of the Committee referred to in detail elsewhere naturally avoids laying great stress on the point, but it is one which appeals to our manufacturers, as is shown by the favourable opinions with which the recommendations have been received in the industrial North."

The Government accepted the recommendations of the majority report of the Babington Smith Committee. The attempt, however, to maintain exchange at 2s. (gold) did not succeed.

The history of our exchange during 1920 may be divided into three periods:—

(a) From the adoption of the report of the Babington Smith Committee in February to June 24 when Government lowered the rate to 1s.  $11\frac{3}{4}$ d. for Telegraphic Transfers and 1s.  $11\frac{1}{8}$ d. for Deferreds.

(b) From June 24 to September 28 when Government withdrew the sale of Reverse bills.



(c) The period of uncontrolled or free exchange after September 28.

(d) The adoption of the report of the Babington Smith Committee raised the rate of exchange from 2s. 4d. to 2s. 10½d. In order to maintain the 2s. (gold) rate, it was decided to fix the rates for Reverse Councils in accordance with the ratio of Rs. 10 to the sovereign, making allowance for the depreciation of sterling on the basis of the latest rate for the dollar sterling exchange. Immediate Telegraphic Transfers were sold on 5th February at 2s. 8½d.; at the following sale the rate was raised to 2s. 10¾d. As the Government rate was higher than the market rate the amounts offered at these and subsequent sales were largely over-subscribed. The Comptroller of Currency in his report for 1919-20 says:—

"When at the commencement of February the rate for Reverse Councils went to 2s. 8½d. the market rate for Telegraphic Transfers on London was quoted at 2s. 7½d. At these rates an overwhelming demand for sterling remittance arose and the Reverse Councils sold were insufficient to bridge the gap between the demand for sterling remittance and the demand for remittance to India."

On February 19, £2,000,000 was offered at a difference of about 3d. over the market rate; the applications were for no less than £122,333,000. In March the difference between the Bank rate for Telegraphic Transfers and the official rate was about 1½d. and applications fell off to £56,295,000. The difference fell to about one penny in April, but by the middle of May it had increased to 4½d. and applications were again received for more than £122,000,000. At the sale on 15th June, for a third time, while £1,000,000 was offered, tenders were received for upwards of £122,000,000, the difference between the Government rate and the market rate being more than 7d.

Having regard to the fall in the market rate for sterling Government, as stated above, lowered the rates to 1s. 11½d. for Telegraphic Transfers, and 1s. 11¼d. for Deferreds, on June 24. They frankly abandoned the attempt to maintain exchange at 2s. (gold), considering it hopeless. According to the Currency Committee the rate for Immediate Telegraphic Transfers on London was to be based on the

sterling equivalent of 11·33016 grains of fine gold as measured by the prevailing dollar-sterling exchange. The equivalent was 2s. 5d. per rupee, while the new Government rate was 1s. 11 $\frac{2}{3}$ d.

(b) The weekly offer of sterling drafts on London continued till the end of September, when the Government withdrew the offer, not without "reserving to themselves the right of resuming these sales should circumstances, in their opinion, at any time subsequently render resumption expedient."

Thus ended the attempt of the Government to stabilise exchange in accordance with the recommendations of the Babington Smith Committee.

From January to September, 1920, Reverse bills to an amount of £55,000,000 were sold, which figure constitutes a record in the annals of our finance. The bills were sold at rates which very often were "absurdly cheap compared with the market value" (*The Times*, London). "The favoured allotments of the bills," in the words of the Indian trade correspondent of the *Manchester Guardian Commercial* "became a very grave scandal."

(c) Exchange fell rapidly in October (1920). The situation was tersely summarised by a Calcutta merchant who, when questioned by a correspondent of an English financial paper, said that there was no exchange. To support exchange Government raised the embargo on the export of wheat from October, 1920, till March, 1921. A total export of 400,000 tons was allowed. There was, in 1919-20, as compared with 1918-19, an increase of 26 per cent in the area under wheat, and of no less than 34 per cent in the yield, which was estimated at 10,092,000 tons. The wheat exports, however, did not exercise any perceptible influence on exchange. On 28th December, 1920, the rate for Telegraphic Transfers was 1s. 5d. per rupee, and it continued to fall until on March 9, 1921, only 15d. could be purchased with a rupee. Then it rose a little, but throughout the remaining eight months, till the end of the year, it remained a little below 1s. 4d. sterling (about 13d. gold).

The entirely unexpected fall in exchange involved our importers in serious losses and many of them refused to meet their obligations. What a fall in exchange means to importers may be shown by an example. At 2s. goods of the value of £1,000 are worth Rs. 10,000. When exchange falls to 1s. 4*d.*, Rs. 15,000 must be paid to take delivery of the same goods—a loss of Rs. 5,000. It is not surprising that many importers tried to back out of their contracts. Faced with bankruptcy, they cancelled the purchases they had made.

The action of our importers in refusing to meet their obligations cannot be defended, but in many cases such refusal was due to real inability to pay. It should also be remembered that Government had accepted the recommendations of the Babington Smith Committee, and attempted to stabilise exchange, as we have seen, first at 2s. gold, and then at 2s. sterling. In these circumstances it was natural for people to think that exchange would not fall below 2s. sterling, and when exchange fell below that rate they thought Government was to blame for it.

The fall in the rupee was accompanied by a fall in the price of silver, and there was a close connection between the two movements. The year 1920 will rank as one of the most eventful years in the history of silver and of the rupee. As we have seen, it saw the rise of the rupee to the highest level ever recorded during the last 75 years, and an equally sensational fall. The price of silver also varied between very wide limits in 1920, 89½*d.* in February and 38¾*d.* in December. The price of silver exercised an important influence, not only on the rupee but on the currencies of

other Eastern countries. For example, the highest quotation for the Hongkong Dollar in London in February, 1920, was 6s. 2*d.* and the lowest in December, 2s. 11*d.*; similarly for the Shanghai Tael, the highest quotation in 1920 was 9s. 3*d.* and the lowest 3s. 10½*d.* The rise in the price of silver re-established the connection between the exchange value and the bullion value of the rupee which had existed before 1893, and when the price of silver fell, the exchange value of the rupee fell with it. The fall in silver is attributed to the cessation of the Chinese demand, the absence of purchases by the Indian Government and the absence of buying by the European mints. During 1920 France and her partners in the Latin Monetary Union melted down and sold practically the whole of their silver currency. A certain section of the British press held France responsible for breaking the Eastern exchanges.

The accompanying chart shows the exchange value and the bullion value of the rupee from 1873 to 1932. It will be seen that the fall in exchange from 1873 to 1895 was in consequence of the fall in the bullion value of the rupee. From 1895 to 1898 exchange rose, and from 1898 to 1915 it remained stable at 16*d.* During the whole of this period the price of silver exercised no influence on the movements of exchange. But the connection between exchange and the bullion value of the rupee was re-established during the War when the price of silver began to rise rapidly. The two curves move in the same direction in the years 1915—1922; then they again separate.

## EXCHANGE AND PRICE OF SILVER, 1873—1932

		Exchange d. per Re.	Silver d. per oz.	Bullion value of the Re. d.
1873	..	22.88	59.25	22.02
4	..	22.88	58.31	21.67
5	..	21.75	56.88	21.14
6	..	20.56	52.75	19.61
7	..	21.38	54.81	20.37
8	..	20.56	52.56	19.53
9	..	19.94	51.25	19.04
1880	..	20.03	52.25	19.42
1	..	19.75	51.69	19.26
2	..	20.33	51.63	19.19
3	..	19.83	50.56	18.79
4	..	19.81	50.63	18.14
5	..	18.83	48.63	18.07
6	..	17.94	45.38	16.86
7	..	17.28	44.63	16.58
8	..	16.53	42.88	15.93
9	..	16.63	42.69	15.86
1890	..	18.53	47.69	17.72
1	..	17.22	45.06	16.74
2	..	15.25	39.81	14.79
3	..	15.08	35.31	13.12
4	..	13.5	28.94	10.75
5	..	13.34	29.88	11.10
6	..	14.44	30.75	11.43
7	..	15.28	27.56	10.24
8	..	16	26.94	10.01
9	..	16.11	27.44	10.2

## EXCHANGE AND PRICE OF SILVER, 1873—1932—(Contd.)

		Exchange d. per Re.	Silver d. per oz.	Bullion value of the Re. d.
1900	..	16.09	28.25	10.5
1	..	16.07	27.19	10.1
2	..	16.06	24.06	8.94
3	..	16.13	24.75	9.2
4	..	16.15	26.38	9.8
5	..	16.15	27.81	10.33
6	..	16.31	30.88	11.46
7	..	16.34	30.19	11.22
8	..	16.16	24.38	9.06
9	..	16.38	23.69	8.8
1910	..	16.31	24.63	9.15
1	..	16.31	24.56	9.13
2	..	16.34	28.03	10.42
3	..	16.38	27.56	10.24
4	..	16.38	25.31	9.41
5	..	16.31	23.69	8.8
6	..	16.50	31.31	11.63
7	..	17.06	40.83	15.19
8	..	18.25	47.56	17.67
9	..	22.09	57.06	21.2
1920	..	24.63	61.44	22.83
1	..	16.63	36.88	13.7
2	..	15.85	34.44	12.8
3	..	16.38	31.94	11.87
4	..	17.63	34	12.63
5	..	18.44	32.13	11.94
6	..	18.25	28.69	10.66
7	..	18.13	26.03	9.67
8	..	18.34	26.75	9.94
9	..	18.34	24.44	9.07

## EXCHANGE AND PRICE OF SILVER, 1873—1932—(Contd.)

		Exchange <i>d.</i> per Re.	Silver <i>d.</i> per oz.	Bullion value of the Re. <i>d.</i>
1930	..	18-06	17-69	6-56
1	..	18-25	14-59	5-42
2	..	18-98	17-84	6-63

*Notes.*—Exchange on London at four months' sight; from 1873 to 1884 at six months' sight. Yearly average. Price of silver in London per standard oz. Yearly average.

(Source : Statistical Abstract for British India.)

The rupee contains 180 grains of silver  $11/13$  fine, or 165 grains of fine silver. When the price of silver in London is 43*d.* per oz. the value of the metallic content of the rupee is 15-979*d.* (making no allowance for cost of reduction to bullion).

## 4. THE GOLD BULLION STANDARD

We have seen that the attempt to stabilise exchange at 2*s.* failed in 1920. Soon after the publication of the Report of the Babington-Smith Committee economic conditions began to change so rapidly as to make the proposals of the Committee regarding exchange stabilisation impracticable. There was in the first place, as we have seen, a rapid and unexpected fall in the price of silver, and in the second place, the beginning of a heavy fall in commodity prices all over the world.

The rate of exchange for Calcutta Telegraphic Transfers on London (average of daily rates) was 2*s.* 0  $\frac{3}{2}$  *d.* in 1920; it fell to 1*s.* 4  $\frac{1}{2}$  *d.* in 1921 and 1*s.* 3  $\frac{1}{2}$  *d.* in 1922. Exchange gradually rose after July, 1922. The average of daily rates for each month of the year 1922 was less than 1*s.* 4*d.*; but in 1923 it never fell below that level, and in December, 1923, it exceeded 1*s.* 5*d.* The average

rate was 1s. 4 $\frac{2}{3}$ d. for the whole year 1923; 1s. 5 $\frac{1}{4}$ d. for 1924 and 1s. 6d. for the first nine months (January to September) of 1925. In August, 1925, a Commission, with Mr. Hilton-Young as President, was appointed to examine and report on the Indian exchange and currency system and practice. This was the second Royal Commission, as the Babington-Smith Committee was the third Committee, which, since 1892, was called upon to make proposals regarding Indian currency reform.\*

The Currency Commission recommended the adoption by India of the gold bullion standard. The gold exchange standard was definitely condemned by the Commission as unsatisfactory. We have the important admission that the gold exchange standard does not work automatically, and that it is not elastic. "The automatic working of the exchange standard," says the Report (para 16), "is thus not adequately provided for in India, *and never has been*" (italics mine). The Report refers to "the absence of contraction on occasions when the currency authority has had to sell sterling exchange." In 1920 the consequences of this were "disastrous." And the Report adds:

"There must ever be danger of such disaster under a system which does not automatically enforce contraction of internal currency concurrently with the depletion of Reserves."

* Currency Committee or Commission	Year of appointment
1. Herschell Committee           ...    ...	1892
2. Fowler Committee           ...    ...	1898
3. Chamberlain Commission   ...    ...	1913
4. Babington-Smith Committee ...    ...	1919
5. Hilton-Young Commission  ...    ...	1925



These remarks would undoubtedly be read with interest by certain official apologists who, like Mr. Findlay Shirras, regard the gold exchange system as an "improved gold standard," as "a system of money which has become and must become increasingly popular," and who were lost in admiration of "the beautiful elasticity of our currency system."\*

The main recommendations of the Currency Commission may be briefly summarised as follows:—

When the gold bullion standard is introduced, the currency will consist of silver rupees and notes, which will be directly convertible into gold bullion. There will be no gold in circulation.

The paper currency will cease to be convertible by law into silver coin (para 69).

The chief feature of the gold bullion standard is the convertibility of token money directly into gold bullion for all purposes. The Currency Commission attached great importance to it. Under the old system paper money was convertible by law only into silver rupees, which are themselves token coins. By making notes convertible by law into gold bars for all purposes, "a more solid right of convertibility is attached to them than they have ever had

\* *Indian Finance and Banking* 1920, p. 37.

"The Indian currency system of to-day is, however, quite as automatic as it was previous to the closing of the Mints to the free coinage of silver." (*Datta's Report on prices*, para 228.)

The Chamberlain Commission of 1914 denied that the gold exchange system gave India "an artificial and managed currency." "It is not in fact possible for the Government of India," says the Report of the Chamberlain Commission (para 66), "to manipulate the currency, and they cannot add to the active circulation of the currency except in response to public demand."

since silver ceased to be a reliable standard of value (para 69). Para 61 of the Report states:

“For the purposes of India this standard [gold bullion standard] fulfils the essential condition, that it should be not stable only, but simple and certain. It provides the token currency with a right of convertibility that is intelligible to the uninstructed, and with a backing that is tangible and visible.”

This recommendation of the Currency Commission has been misunderstood. It has been thought that under the gold bullion standard token money will be freely convertible into gold, not merely for export, but for internal purposes. It was easy to make this mistake; for the “uninstructed” could not be expected to see the “tangible and visible” backing of the token currency, unless token money was freely convertible into gold for internal use.

In *theory* token money, under the gold bullion standard, will be convertible into gold for *all* purposes; in *practice* it will be convertible into gold only for export.

In para 64 of the Report it is explained that gold will not be sold by the currency authority cheaper than the market rate. The wholesale bullion market which exists now is not to be destroyed. If the currency authority were compelled to sell gold at a price exactly corresponding to the par value of the rupee (*i.e.*, cheaper than the market rate which includes the cost of import), the consequences will be serious:—

“Apart from practically destroying the wholesale bullion market, the currency authority would inevitably become involved in the performance of a task which does not properly belong to it. Its

primary duty of maintaining the monetary unit at parity with gold would be made far more difficult . . . ”\*

Now suppose that a large amount of gold was wanted for internal use and the gold reserves of the Bank began to disappear. To meet the loss of reserves owing to an internal drain the Bank would be forced to restrict credit. This, says Schedule I, “would have highly injurious reactions on the internal economy of India, and should consequently be avoided.” Therefore,

“It is required so to frame the Bank’s obligation to sell gold as to make it unprofitable for gold to be bought from it except in circumstances in which it would be profitable to do so for purely monetary purposes.”

“The purely monetary purposes” referred to in Schedule I relate to gold for export, and not to gold given for hoarding or for making ornaments. Gold bullion cannot be used for the purpose of circulation within the country, and it is used for monetary purposes only when it is sent abroad in settlement of foreign obligations.

It is thought that even when the balance of trade is in India’s favour (and consequently, the rate of exchange above 1s. 6d.) the currency may need to be contracted, and the Reserve Bank must sell gold to the public in order to reduce the volume of our token currency. This is not how

\* Schedule I is even more explicit :

“The reserves,” it says, “exist to assure the maintenance at parity with gold of the purchasing power of the monetary unit, *i.e.*, to meet purely monetary needs. It is evident that if they can be drawn upon in the ordinary course to satisfy non-monetary purposes to anything but a minor extent, the Bank’s primary task, *viz.*, to maintain the external value of the currency, will be jeopardised.”

the Currency Commission have argued. In para 115 of the Report they state :

“And if the exchanges are stable, and keep within the upper or lower gold points set by the fixation of the price at which the Reserve Bank undertakes to buy and sell gold, it will not be called upon either to buy or sell gold.”

The Reserve Bank will be called upon to sell gold only when, as the result of an adverse balance of trade, the exchanges turn against India.

It should be clear that so far as the ordinary holder of rupees or notes is concerned, he would not be able to convert them into gold. When he wants gold he must buy gold in the bazar, as at present.

It will be seen that from the point of view of convertibility there is no fundamental difference between the gold exchange system and the gold bullion standard of the Currency Commission. The essential feature of both is that the internal currency consists of token money, which is convertible into gold for the payment of international indebtedness.\*

\* “In applying Ricardo’s proposals to India,” wrote Mr. Lindsay, “little modification is necessary either of the proposals or of Indian currency arrangements. The only change in the proposals will be the substitution of sterling money for gold bars, and rupees for paper money.” (*Ricardo’s Exchange Remedy* by A.M.L., p. 8.)

Dr. Edwin Cannan, in his evidence before the Currency Commission, thus commented on the difference between the gold exchange system and the gold bullion standard :

“I think when you get on to the bare bones of the gold exchange system there is very little difference between the two; some people say that this country [England] is on a gold exchange standard system now.” Evidence Vol. V. P. 162, Q. 13,210.

For the satisfactory working of the gold exchange system it is not essential that notes should be printed on silver. When our paper money ceases to be convertible into silver rupees, we shall have what is regarded as the "ideal" currency system, that is, a currency system in which the internal currency consists of paper, convertible into gold for the settlement of foreign obligations. Para 56 of the Report says:—

"It is argued by many who advocate the introduction of a gold currency, that a token currency of notes inconvertible for internal purpose is the ideal end towards which India should work. The scheme outlined below carries India very far along the road towards that end. . . ."

A Memorandum\* on a gold standard for India was submitted to the Commission by Mr. H. Denning, Controller of Currency. The Memorandum represented the result of discussions between Sir Basil Blackett (Finance Member, Government of India), Mr. McWatters (Secretary to the Government of India, Finance Department) and Mr. Denning, but it was not put forward as an expression of the views of the Government of India.

The main defects of the pre-war currency and exchange system, discussed in the Memorandum, were as follows:—

(a) The currency system was liable to break down, as it actually did during the war, when the price of silver rose above the bullion par of the rupee.

(b) The rupee was linked to sterling only, and the system ceased to be a gold exchange standard as soon as sterling depreciated.

\* *Appendix to the Currency Report, 1925-26, II, 43.*

(c) The Government were under no statutory obligation to sell gold or gold exchange at a fixed rate at a time of exchange weakness.

(d) When Reverse Councils were sold, Government could arrange by borrowing from the Gold Standard Reserve to meet sterling payments on account of the Reverse Councils without affecting the amount of currency in circulation. The circulation, thus, was not automatically reduced, but such decrease depended on the action of Government. This is shown by the following statement:—

Years.	Amount of Reverses sold. £1000.	Rupees received for Reverses sold. Rs. Lakhs.	Amount of contrac- tion effected. Rs. Lakhs.
1907-08-09 ..	8,053	12,16	12,16
1909-10 ..	156	24	<i>Nil</i>
1914-15 ..	8,707	13,16	1,05
1915-16 ...	4,893	7,38	34
1918-19 ..	5,315	7,08	<i>Nil</i>
1919-20-21 ..	55,532	47,14	34,68

(e) The effective regulation of the money market was impossible as the currency and the banking reserves were controlled by different authorities, the former by the Government and the latter (in so far as it was controlled at all) by the Imperial Bank.

It is admitted in the Memorandum that defects (b) and (c) could be completely remedied even under the gold exchange standard by imposing a statutory obligation on the currency authority to buy and sell gold and gold exchange at fixed rates. As regards the other defects, while the

management of the note-issue can be handed over to a Central Bank, so long as the rupee is the principal form of money and unlimited legal tender, a separate reserve must be maintained by Government to provide against a return of rupees from circulation; the entire system must also remain exposed to the danger of a rise in the price of silver. The two defects (*a*) and (*d*) can be remedied only by the adoption of the gold bullion standard or the gold standard with a gold currency in circulation. The Memorandum thus comments on these alternatives:—

“Undoubtedly the ideal to be aimed at is the system now in force in Great Britain, under which the note is the sole legal tender in circulation, and the gold value of sterling is stabilised by the statutory obligation imposed on the Bank of England to buy and sell gold at rates corresponding roughly to the par of exchange. It is impossible, however, to hope that conditions in India will for generations be such that a full legal tender metallic currency will be no longer necessary. If therefore a gold currency is not introduced, defects in the Indian currency and exchange system must remain indefinitely. There is, moreover, reason to suppose that the introduction of a gold currency would hasten the attainment of the ideal system, as the fact that notes were convertible into gold and not merely into an overvalued silver coin would tend to increase confidence in the note-issue and to decrease the demand for metallic currency. The conclusion is that the only way of remedying all the defects in the system within a reasonable period is by establishing a gold standard with a gold currency in circulation.”

A practical scheme for the introduction of the gold currency standard by stages was outlined in the Memorandum. The estimated amount of gold required for the purpose was £103 millions; of this amount £15 millions was required at the time of the initiation of the first stage,

a further £35 millions within a year, and the remainder over a period of ten years.

The scheme was rejected by the Currency Commission.

The Government accepted the main recommendations of the Currency Commission, and in 1927 the exchange value of the rupee was fixed at 18*d.* gold. The arguments for and against the 18*d.* gold rate, the abandonment of the gold standard and the linking of the rupee to sterling on 21st September, 1931, are discussed in *India in the Crisis*.

The question of a gold currency is no longer a practical one. But it is a fact that India would prefer an automatic system of currency, based on a circulation of gold coins, to the bullion standard of the Hilton-Young Commission. A genuine demand for gold for currency purposes existed in India before the War. After the sovereign became legal tender (1899) the import and absorption of sovereigns into circulation increased rapidly, and official inquiries showed that the sovereigns were used as money.

The attitude of the people of India towards gold is different from that of their Government. This is shown not only by the Government view of gold exports but by Government currency and exchange policy between 1901 and 1920.

The gold exchange standard was recommended for India by Mr. Lindsay chiefly on the ground that under this system the demand for gold is reduced to a minimum. On page 12 of his pamphlet entitled *Ricardo's Exchange Remedy* (1892), Mr. Lindsay thus explains the advantages of the gold exchange system.



*"In this way a gold standard might be established in India without risk and considerable profit to the State and the Bank of England, and with advantage to the London money market. There would be no increase in the demand for gold, and little decrease, if any, in the demand for silver."*

The main object of the sale of Council Bills by the Secretary of State for India in excess of the Home Charges was to reduce the movement of gold from England to India.\* Again in 1920, one of the reasons for fixing the

\* Mr. O. T. Barrow, who gave evidence before the Chamberlain Commission as the representative of the Government of India, frankly told the Commission that it was "desirable to check the excessive importation of gold into India." If gold was allowed to come to India, it would be used for currency or for hoarding. In either case, said Mr. Barrow, "if it went into the country and stayed there, it would mean a further drain of gold from England. It must mean a further drain, whichever it is."

Another witness, Mr. W. B. Hunter (of the Presidency Bank of Madras), who gave evidence before the same Commission, thus replied to Sir James Begbie's questions regarding the Council Bill system:—

Q.—You also favour the Council Bill system with the object of reducing the movement of gold coin from Europe to India?—This is so.

Q.—Your object is to prevent gold coin coming into India?—To prevent unnecessary gold coin being withdrawn from London at times of pressure, as I hold that a tight money market reacts on the Indian export trade.

Q.—Your object is to prevent disturbance of the London money market?—That is my chief object.

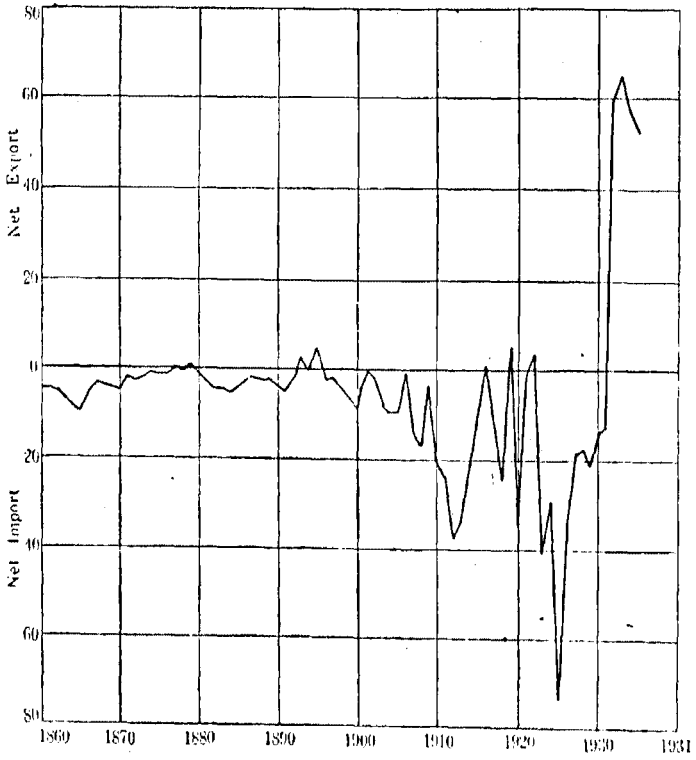
Q.—You propose to achieve that by sale of bills in London to the extent that would be sufficient for that object?—Yes.

Mr. Lindsay before the Fowler Committee of 1898:

Q.—3593. Do you think this [gold currency for India] would, under the circumstances, lead to an injurious appreciation of the standard of value?—I think, myself, that the two uses of gold combined, for hoarding and for internal circulation, would be so enormous that it would create a serious disturbance in the London money market.

PLATE No. 20  
crores

Gold, 1859-60 to 1931-35



exchange value of the rupee at 2s. (gold) was to lessen India's demand for gold.\*

## NET IMPORTS OF GOLD, 1855-56 TO 1934-35

Year.†		Lakhs.	Year.†		Lakhs.
1856	..	.. 2,51	1863	..	.. 6,85
7	..	.. 2,09	4	..	.. 8,90
8	..	.. 2,78	5	..	.. 9,84
9	..	.. 4,43	6	..	.. 5,72
1860	..	.. 4,28	7	..	.. 3,84
1	..	.. 4,23	8	..	.. 4,61
2	..	.. 5,18	9	..	.. 5,16

\* "The fear is thought to exist that under free conditions India's absorption of gold would diminish the chances open to other countries of obtaining gold to restore the value of their insufficiently backed paper issues. The amount of gold going to India would depend on the extent to which silver purchases by the Indian Government displace private imports of gold as a means of balancing Indian trade; a higher price limit would secure a larger supply of silver, thus diminishing the gold taken by India. It follows that the fear of undue gold absorption would, be *pro tanto*, met by the proposal to fix a high rate of exchange, which is recommended . . . below as a protection of the masses in India from the effect of high world prices arising out of the War. The volume of the currency would still be automatic, but the limits of the Government's control over the proportions of its constituent elements as between silver and gold would be extended, *pro tanto*, by fixing a higher rather than a lower limit to the Government's buying price of silver." (*Memorandum submitted to the Indian Currency Committee of 1920*, by Mr. F. H. Lucas, Financial Secretary, India Office.)

† Year ended March.

## NET IMPORTS OF GOLD, 1855-56 TO 1934-35—(Contd.)

Year.*		Lakhs.	Year.*		Lakhs.
1870	..	5,59	1910	..	21,68
1	..	2,29	1	..	23,98
2	..	3,56	2	..	37,76
3	..	2,54	3	..	34,00
4	..	1,38	4	..	23,33
5	..	1,87	5	..	7,65
6	..	1,55	6	..	-1,11
7	..	21	7	..	13,24
8	..	47	8	..	25,18
9	..	-90	9	..	-5,56
1880	..	1,75	1920	..	35,33
1	..	3,65	1	..	2,11
2	..	4,85	2	..	-2,06
3	..	4,93	3	..	41,19
4	..	5,46	4	..	29,19
5	..	4,67	5	..	73,93
6	..	2,76	6	..	34,85
7	..	2,18	7	..	19,40
8	..	2,99	8	..	18,10
9	..	2,81	9	..	21,20
1890	..	4,61	1930	..	14,22
1	..	5,64	1	..	12,75
2	..	2,41	2	..	-57,98
3	..	-2,81	3	..	-65,52
4	..	64	4	..	-57,05
5	..	-4,97	5	..	-52,54
6	..	2,53			
7	..	2,29			
8	..	4,91			
9	..	6,50			
1900	..	9,44			
1	..	84			
2	..	1,94			
3	..	8,76			
4	..	9,93			
5	..	9,70			
6	..	46			
7	..	14,85			
8	..	17,37			
9	..	4,35			

\* Year ended March.

## CHAPTER IX

### BANKING

The Indian money market consists of indigenous as well as foreign elements. The village money-lender, the private banker in towns and shroffs in the Presidency towns form the foundation of the Indian credit system. On this foundation there has been erected a superstructure of credit, a banking organisation, such as exists in a much more developed and complicated form in the West. Both the elements, Indian and foreign, perform useful functions, but the indigenous banker plays the more important part in providing the agriculturist and the craftsman with the credit which they need, and also in the financing of the internal trade of the country.

Before the constitution of the Reserve Bank, the Imperial Bank of India did duty as a kind of Central bank. The Imperial Bank was founded in 1921 by amalgamating the three presidency banks of Calcutta, Bombay and Madras. The Imperial Bank is not a State bank, but its connection with the Government of India was a close one.

The Imperial Bank kept the whole of Government balances on which it did not pay any interest. Before the foundation of the Imperial Bank Government used to keep a substantial portion of its balances in Reserve Treasuries at Calcutta, Bombay and Madras. This Independent Treasury System was held to be in the main responsible for the stringency of money in the busy season, but its abolition did not give much relief to the money

market. By the terms of its Charter the Imperial Bank is allowed to draw, accept, discount, buy and sell bills of exchange and other negotiable instruments in India and Ceylon only. The Bank is also prevented from making any loan or advance for a longer period than six months, and except on the security of two names.

The establishment of the Reserve Bank alters the position of the Imperial Bank and its relations with the Government.

An agreement has been concluded between the Reserve Bank and the Imperial Bank. By this agreement, the Imperial Bank shall be the sole agent of the Reserve Bank at all places in British India where there is a branch of the Imperial Bank which was in existence at the commencement of the Reserve Bank of India Act (1st April, 1935), and there is no branch of the Banking Department of the Reserve Bank. The Imperial Bank will receive a commission from the Reserve Bank for performing at these places, on behalf of the Reserve Bank, the functions which it was performing on behalf of the Governor-General in Council before 1st April, 1935. Finally, for maintaining branches not less in number than those existing before 1st April, 1935, the Imperial Bank will receive from the Reserve Bank a payment of 9 lakhs per annum during the first five years of the agreement, 6 lakhs per annum during the next five years, and 4 lakhs per annum during the next five years.

The agreement shall remain in force for 15 years, and thereafter until terminated after five years' notice on either side.

The main business of the Exchange banks is to finance India's import and export trade. They viewed the proposal to amalgamate the three Presidency Banks into the Imperial Bank of India with a certain amount of misgiving, as they thought that the new Bank might attack their monopoly, *i.e.*, the exchange business. In a speech delivered in April, 1920, the Chairman of the Chartered Bank of India (Exchange Bank) said that the Exchange banks were not hostile to the proposed amalgamation, "always provided that the present intention of not competing with the Exchange banks in their ordinary business of exchange is fully and honourably adhered to." The Exchange banks have preserved their monopoly—the Imperial Bank is not allowed to compete with them in their special business and the Indian Joint-Stock banks, with only a few exceptions, have no foreign branches, and do not enjoy the same facilities as the Exchange banks for undertaking exchange business.

The Reserve Bank is authorised to purchase, sell and discount bills of exchange (including treasury bills) drawn in the United Kingdom and maturing within 90 days from the date of purchase but ordinarily only through a scheduled bank.

The Exchange banks may be divided into two groups: banks doing a considerable portion of their business in India, and Banks which are merely agencies of large banking corporations doing business all over Asia. Their total number is 18. In addition to the exchange business they do ordinary banking business, and thus compete with the Imperial Bank and the Indian Joint-Stock banks.

But they take very little part in the financing of the internal trade.

Our foreign trade is financed as follows. The Exchange banks in India collect on maturity the bills drawn on Indian importers for goods purchased by them. These bills are sent to the Exchange banks either direct by the foreign drawer or by a bank which has purchased the bill from the foreign drawer. The Exchange banks also supply knowledge to the foreign exporter about the financial position of the purchasing firms in India.

With the proceeds of the import bills received by them for collection and the deposits they obtain the Exchange banks purchase the exporters' bills offered to them. But the balance of trade in merchandise is generally in India's favour. The funds that the Exchange banks have in India are generally insufficient for purchasing the exporters' bills, and they have to supplement their resources in other ways. Till recently the Exchange banks did so by purchasing the Secretary of State's Council bills; at present they add to their funds by selling sterling to Government. They also import sovereigns, and gold and silver bullion.

The village Mahajan, Mahajans in towns and shroffs in the Presidency towns, the Joint-Stock banks, and the Imperial Bank all take a share in the financing of the internal trade. The importance of the part played by the Mahajan in the moving of crops from the village to the local market called the *mandi*, and from local markets to large towns and the ports cannot be exaggerated. He finances (*a*) agricultural operations, which



is financing industry and (b) trade, which is a commercial function. The village Mahajan, who is the centre of the whole system, as the Indian village is the centre of Indian economic life, is not only a money-lender, but a dealer in grain and other goods. He possesses his own capital, but has also business connections with bigger Mahajans in the larger towns, who deal with Joint-Stock banks.

*Hundis* are used in the internal trade of India. The *hundi* is an internal bill of exchange. A considerable portion of the business of Indian banks consists in making advances against *hundis*. The shroffs in the Presidency towns purchase *hundis* on their own account, and have recourse to banks for discounting *hundis* only when they have exhausted their resources. They purchase *hundis* from smaller shroffs, and these from other shroffs in the smaller towns or villages.

Even before 1921 the connection between the Presidency Banks and up-country trade was very close, and the opening of 100 new branches, within five years, which was one of the conditions imposed upon the Imperial Bank when it was constituted in 1921, was meant to render this connection closer still. By the rates which the Imperial Bank charged on the discount of *hundis*, and the extent to which it showed itself willing to buy *hundis*, it materially affected the supply of credit in the money market in and outside the Presidency towns.

The connection between the rates of discount charged by shroffs and the official *hundi* rate of the Imperial Bank was not always a close one. Sometimes in the busy season the shroff's rate was higher than the Bank rate; in

the slack season, the shroff's rate was lower than the Bank rate. The undercutting of the Bank by the private banker is possible because he has considerable financial resources of his own, which are employed exclusively in financing the internal trade of the country. When the Imperial Bank found that it was getting very little business in *hundis*, and much of its cash was lying idle, it lowered its *hundi* rate. On the other hand, when it was very hard pressed for money, it refused to buy new *hundis*.

The growth of Indian Joint-Stock banks has been rapid. In 1870 the number of reporting banks was 2, with capital and reserve of  $11\frac{1}{2}$  lakhs and deposits amounting to about 14 lakhs. In 1900 the reporting banks had capital and reserve of  $1\frac{1}{4}$  crores and deposits amounting to 8 crores. Thirteen years later the number of banks increased to 18, capital and reserve to about  $2\frac{1}{3}$  crores and deposits to over  $22\frac{1}{2}$  crores. The progress of the Joint-Stock banks in more recent years is shown by the following table:

INDIAN JOINT-STOCK BANKS (WITH CAPITAL AND RESERVE OF RS. 5 LAKHS AND OVER). POSITION ON 31ST DECEMBER OF EACH YEAR

	1913.	1920.	1927.	1932.
Reporting banks, No. ..	18	25	29	34
Paid-up capital. Crores ..	2.3	8.4	6.9	7.8
Reserve and rest „ ..	1.3	2.5	4.2	4.4
TOTAL „ ..	3.6	10.9	11.1	12.2
Deposits „ ..	22.6	71.1	60.8	72.3
Cash balances „ ..	4.0	16.3	7.7	9.8

On 31st December, 1932, there were also working 49 smaller Joint-Stock banks with capital and reserve between Rs. 1 lakh and Rs. 5 lakhs. The total capital and reserve of these smaller banks amounted to 1·2 crores, deposits about 3·8 crores and cash balances 65 lakhs.

Combining the figures for the Imperial Bank, Exchange and Joint-Stock Banks, we find that on the same date the total capital and reserves amounted to 256 crores\* and deposits to 225 crores.

The following table shows the proportion per cent of cash to liabilities on deposits of the several classes of banks on 31st December of each year:—

	Imperial Bank (1)	EXCHANGE BANKS (2).		INDIAN JOINT-STOCK BANKS (3).	
		Class A.	Class B.	Class A.	Class B.
1913	36	19	17	18	16
4	46	28	26	21	22
5	34	19	41	22	22
6	35	25	35	24	17
7	45	40	160	25	21
8	29	20	44	23	24
9	31	35	67	21	24
1920	30	30	58	23	18
1925	21	13	15	19	20
1932	28	12	15	13	17

(1) Before 1921 Presidency Banks.

(2) Exchange banks of Class A are those doing a considerable portion of their business in India; Class B are banks which are merely agencies of large banking

\*Includes 233 crores, capital and reserve of Exchange banks. The figure of deposits includes deposits of Exchange banks held in India only.

corporations doing a major portion of their business abroad.

- (3) Indian Joint-Stock banks of Class A are those having a capital and reserve of 5 lakhs and over; Class B have capital and reserve between Re. 1 lakh and Rs. 5 lakhs.

The percentage of cash to deposits seems to be unduly low. Attention was drawn to it by J. M. Keynes before the War, and he predicted trouble. The crisis in banking which occurred in 1931 was very severe. Between 1913 and 1917 no less than 87 banks failed with a paid-up capital of  $1\frac{3}{4}$  crores. The largest number of failures occurred in 1914 (42 banks with a paid-up capital of over 1 crore).

The crisis was due to lack of experience and mismanagement, and partly to the attempt to finance industries with short term deposits. One may hope that the Joint-Stock banks are now wiser than before.

In spite of the rapid growth of banking, considering the size and population of the country, banking facilities can only be described as very inadequate. The official annual publication known as "*Statement Exhibiting the Moral and Material Progress and Condition of India*" for the year 1924-25 thus commented on banking conditions in the country.

"That the number of banks at present in India is inadequate for her needs, is clear from the fact that there are at present only 100 head offices with between 300 or 400 branch banks throughout the whole country. In some 20 per cent of the towns, possessing a population of more than 50,000 inhabitants, there are no banks at all; while in the case of towns with a population of 10,000 and over, the proportion without banking facilities rises to 75 per cent."

The position in 1932 was as shown below:—

THE NUMBER OF HEAD OFFICES AND BRANCHES OF BANKS, INCLUDING AGENCIES IN INDIA

	Head Office.	Branches.
Imperial Bank .. ..	3	161
Exchange Banks .. ..	..	83
Indian Joint-Stock Banks ..	171	551

According to the list given in *Statistical Tables relating to Banks in India (1932)*, the number of towns enjoying banking facilities is 400. India has 914 towns with a population of over 10,000, and 987 towns with a population of 5,000 to 10,000.

The use of cheques is increasing rapidly. Cheques cleared from clearing houses amounted to 650 crores in 1913 and 1577 crores in 1932. The effect of the trade depression on banking operations is shown by the fall in the amount of cheques cleared between 1929 and 1931:

	Cheques cleared from clearing Houses—Crores.		
1929 .. ..	..	..	20,38
1930 .. ..	..	..	18,04
1931 .. ..	..	..	15,62
1932 .. ..	..	..	15,77

Indian joint-stock banking is making satisfactory progress, but Directors of Indian banks have still to learn that banks exist primarily to assist agriculture, trade and industry, and not to finance the Directors and their concerns.

## A CENTRAL BANK FOR INDIA

A Bill to establish a central bank in India, called the Reserve Bank, was introduced in the Legislative Assembly in January, 1927. It was described by Sir Basil Blackett as "one of the greatest measures of financial liberalism ever brought forward by the Government of India."

The establishment of a Central Bank in India was recommended by the Currency Commission of 1925. They pointed out the inherent weaknesses of a system in which the control of currency and credit was in the hands of two distinct authorities, the credit situation being controlled by the Imperial Bank of India and the currency situation by the Government. The currency and banking reserves of the country were also separately managed. The unification of the control of currency and credit could only be brought about by the creation of a central bank enjoying the sole right of note-issue, and independent of the State. The Currency Commission recommended that the central bank should be a share-holders' bank, with a fully paid-up capital of Rs. 5 crores. In making their recommendations regarding the management of the central bank they kept in view the Resolutions passed both by the International Financial Conference of Brussels (1920) and that of Genoa (1922) to the effect that "Banks, and especially Banks of Issue, should be free from political pressure, and should be conducted solely on lines of prudent finance." The Central Board was to be composed of 14 members, of whom 9 were to be elected by shareholders, a maximum of 3 to be nominated by the Governor-General in Council, in addition to a Managing Governor and a Deputy Managing

Governor. The Government was also to be given the power of nominating an official member to the Board with the right and duty to attend and advise the Board, but not with the right to vote. It was thought that in the special circumstances of India, *i.e.*, the wide experience of Government in the management of the currency and the great importance of Government's banking and remittance business, it was desirable that Government should nominate a small minority of members on the Central Board. This constitution left the Reserve Bank free from interference by the Executive in the day-to-day conduct of its business and in banking policy.

The Currency Commission distinctly laid it down that no person should be appointed President or Vice-President of a Local Board or should be recommended as a member of the Central Board, who is a member of the Governor-General's Council, the Council of State, the Legislative Assembly, or of any of the Provincial Governments or Legislative Councils.

Differences arose in the Legislative Assembly on two points. In the first place the Assembly, by a majority, decided that the Central bank should be a State Bank; secondly, the Assembly insisted on the inclusion of representatives of Central and Provincial Legislatures in the Board of Directors.

Indian opinion preferred a State bank, that is a bank with capital subscribed by the Government, in place of a bank with private share-capital. The advantages of a share-holders' bank are recognised: the board of management is elected by the share-holders, and this provides a

ready-made constituency for the selection of a representative directorate; further, members of the board have themselves contributed to the capital of the bank, and they are accountable to the share-holders for money which they have contributed. Such a bank may also be completely independent of the State. But the fear of non-officials was that in the special circumstances of India, a Central Bank directed by a body responsible only to a number of private share-holders, would tend to be controlled by vested interests, and that its utility to the public might even be endangered by a conflict of interests within the management of the Bank between Indian and external capital.

As the differences between the official and non-official points of view proved irreconcilable, Government announced on 8th September, 1927, that they did not intend to proceed with the Bill. Later, on February 6, 1928, discussion on the Bill was resumed, but the rejection by the Assembly of Clause VIII, relating to the constitution of the Board of Directors, ended the discussion.

A new Act constituting the Reserve Bank of India received the assent of the Governor-General on 6th March, 1934. The object is "to regulate the issue of bank notes and the keeping of reserve with a view to securing monetary stability in British India and generally to operate the currency and credit system of the country to its advantage." The Act leaves the question of the monetary standard best suited to India to be settled later; it only makes "temporary provision on the basis of the existing monetary system."



## CONSTITUTION

The Reserve Bank is a share-holders' bank. The share capital of the Bank is 5 crores, divided into fully paid-up shares of Rs. 100 each. The nominal value of the shares originally assigned to the various Registers is as follows: Bombay 140 lakhs, Calcutta 145 lakhs, Delhi 115 lakhs, Madras 70 lakhs, and Rangoon 30 lakhs. British subjects ordinarily resident in India but domiciled in the United Kingdom or in the British Dominions, and companies incorporated in the United Kingdom or the British Dominions having a branch in British India, may become share-holders of the Reserve Bank, provided the Dominion concerned does not discriminate in any way against Indians.

The Central Board consists of a Governor and two Deputy Governors appointed by the Governor-General in Council, 4 Directors nominated by the Governor-General in Council, 8 Directors elected on behalf of the share-holders on the various Registers, and one Government official nominated by the Governor-General in Council. In each of the five areas there will be a Local Board consisting of 5 members elected from amongst themselves by the share-holders on the register for that area and 3 members nominated by the Central Board from amongst the same share-holders.\*

\* Excepting the Governor, Deputy Governor or the Director nominated by the Governor-General in Council, no person may be a Director or a member of a Local Board who is a salaried Government official or a salaried official of a State in India, is an officer or employee of any bank, or is a Director of any bank other than a bank which is a society registered under the Co-operative Societies Act of 1912.

## THE BUSINESS WHICH THE BANK MAY TRANSACT

The Bank may purchase, sell and rediscount bills of exchange and promissory notes (a) drawn and payable in India maturing within 90 days and arising out of *bona fide* commercial or trade transactions, (b) drawn and payable in India, maturing within 9 months, drawn or issued for the purpose of financing seasonal agricultural operations or the marketing of crops, and (c) drawn and payable in India, issued or drawn for the purpose of holding or trading in securities of the Government of India, or a Local Government, or specified securities of States. In each case one of the signatures on the bill must be that of a scheduled bank.

The Bank may make to States in India, local authorities and provincial co-operative banks loans and advances against specified securities, which include promissory notes of any scheduled bank, or a provincial co-operative bank, supported by documents of title to goods which have been pledged to any such bank as security for a cash credit or overdraft granted for *bona fide* commercial or trade transactions, or for the purpose of financing seasonal agricultural operations, or the marketing of crops.

The Bank may purchase and sell Government securities of the United Kingdom maturing within 10 years from the date of purchase, and the securities of the Government of India or of a Local Government of any maturity. The amount of such securities held at any time in the Banking Department will be governed by definite rules.

The Bank will act as agent for the Secretary of State in Council, the Governor-General in Council, or any Local

Government or Local authority or State in India, in the transaction of financial business, which has been defined. In addition, it will receive money from them on deposit (without interest) and also from banks and any other persons.

#### BUSINESS WHICH THE BANK MAY NOT TRANSACT

The Bank may not (1) engage in trade or otherwise have a direct interest in any commercial, industrial or other undertaking, (2) purchase its own shares or the shares of any other bank or company or grant loans upon the security of any such shares, (3) advance money on mortgage of immovable property, (4) make loans or advances, (5) draw or accept bills payable otherwise than on demand, and (6) allow interest on deposits or current accounts.

#### CENTRAL BANKING FUNCTIONS

The Government of India and Local Governments will entrust the Bank with all their money, remittance, exchange and banking transactions in India and, in particular, shall deposit, free of interest all their cash balances with the Bank.

The Bank will be entrusted with the management of the public debt and with the issue of new loans.

The Bank will eventually take over the note-issue from the Government of India and have the sole right to issue notes.

As in the case of the Bank of England, the Issue Department of the Bank shall be separated and be wholly dis-

tinct from the Banking Department. The notes shall be a liability of the Issue Department alone. The notes issued (lowest denomination Rs. 5) will be legal tender.

Of the total amount of assets of the Issue Department, 40 per cent shall consist of gold coin, gold bullion or sterling securities. The remainder of the assets (60 per cent) shall be held in rupee coin, Government of India rupee securities of any maturity, and such bills of exchange and promissory notes payable in British India as are eligible for purchase by the Bank. But the amount held in Government of India rupee securities shall not at any time exceed one-fourth of the total amount of the assets or 50 crores of rupees, whichever amount is greater, or, with the previous sanction of the Governor-General, such amount plus a sum of ten crores of rupees.

Of the assets in the form of gold or gold coin, 85 per cent shall be held in British India.

The reserve requirements may be suspended (for periods not exceeding 30 days in the first instance, which may be extended by 15 days) on the payment of a tax by the Bank upon the amount by which the holding of gold coin, gold bullion and sterling securities is reduced below the prescribed minimum. The tax shall be payable at the bank rate for the time being in force with an addition of one per cent per annum when such holding exceeds  $32\frac{1}{2}$  per cent of the total amount of the assets, and of a further  $1\frac{1}{2}$  per cent per annum in respect of every further decrease of  $2\frac{1}{2}$  per cent or part of such decrease.

## MAINTENANCE OF EXCHANGE

India is at present under the Sterling Exchange Standard. The Bank will maintain the 18*d.* sterling rate by buying and selling sterling in amounts not less than 10,000 pounds. Its selling price will be 1*s.* 5 49/64*d.* per rupee, and buying price 1*s.* 6 3/16*d.* per rupee. So long as the Bank is prepared to sell sterling at 17 49/64*d.*, the rate of exchange cannot fall below the lower specie point (17 3/4*d.* per rupee); similarly exchange cannot rise above the upper specie point (18 1/4*d.*) if the Bank is prepared to buy all sterling at 18 3/16*d.* per rupee.

## RELATIONS WITH OTHER BANKS

The expression "Scheduled banks" has been used above. These are banks mentioned in a schedule attached to the Reserve Bank Act. The number of the banks is 50 (or 49 now, the People's Bank of Northern India having gone into liquidation). Seventeen out of the 50 scheduled banks are foreign.

Every scheduled bank shall maintain with the Reserve Bank a balance the amount of which shall not at the close of business on any day be less than 5 per cent of the demand liabilities and 2 per cent of the time liabilities of such bank in India. (The liabilities in this connection shall not include the paid-up capital or the reserve, or any credit balance in the profit and loss account of the bank, or the amount of any loan taken from the Reserve Bank.) Weekly returns shall be submitted by every scheduled bank to the Governor-General in Council and the Reserve Bank showing, among other things, its demand and time liabilities.

ties, its balance at the Reserve Bank, and the amount of advances made and of bills discounted by it. The Reserve Bank will also submit a weekly return of the Issue and of the Banking Department to the Governor-General in Council.

It is thought that the percentages for minimum reserve balances are somewhat high for India, but they are lower than the percentages recommended by the Currency Commission, 10 and 3 per cent respectively for demand and time liabilities.

To make the control of credit by the Reserve Bank effective it was essential that the requirements regarding the maintenance of the minimum reserve balance with the Reserve Bank should apply to as large a number of banks as possible, and in this respect Schedule 1 is satisfactory.

As a compensation for the obligation imposed upon scheduled banks to maintain compulsory deposits free of interest in the Reserve Bank, the facilities which the Reserve Bank provides in the way of re-discount of bills of exchange and promissory notes will be restricted to the scheduled banks.

The Bank will ordinarily only re-discount bills of exchange and promissory notes, but the power of direct discount, or open market operations, has not been withheld from it. However, to prevent indiscriminate competition with the commercial banks, it has been provided that this power shall be exercised only when, in the opinion of the Board, such action is necessary or expedient in the interests of Indian trade or commerce.

## QUESTION OF ELASTICITY

There was a provision in the old Paper Currency Act for the issue of emergency currency against internal bills of exchange or *hundis*. This device imparted a certain measure of elasticity to the currency system. Its working however, was not unattended with difficulties, and in 1924, in spite of the loan of Rs. 12 crores to the Imperial Bank under the provision mentioned above, the Government had to assist the market by expanding the note-issue to the extent of a further Rs.12 crores against British Treasury bills, earmarked to the Paper Currency Reserve in London. The chief difficulty in connection with the issue of emergency currency against commercial bills is that the internal trade of India is, for the most part, financed by a system of cash credits, and the Imperial Bank has found it difficult to secure an adequate volume of bills as cover against the seasonal increase, with the result that the Government have been compelled to meet the demand for additional currency by regulating their holding of sterling securities in the Paper Currency Reserve. On more than one occasion the Imperial Bank has had to put pressure on its clients to convert cash credits into *hundis* in order that it might have self-liquidating *hundis* to put up as a cover against the loan from the Paper Currency Reserve. These *hundis* or bills, although they represented a real demand for finance for trade, did not represent any definite goods or commodities, being in fact manufactured bills substituted for cash credits.

The provisions of the new Reserve Bank Act, relating to the issue of emergency currency, have been so framed as to meet these difficulties.

In the first place, the Bank is authorised to transact the purchase, sale and re-discount of internal bills of exchange and promissory notes drawn or issued for the purpose of financing seasonal agricultural operations or the marketing of crops. These bills or promissory notes (as we have seen) must bear two or more good signatures, one of which shall be that of a scheduled bank or a provincial co-operative bank, and they must mature within nine months from the date of purchase or re-discount.

In the second place, in view of the prevalent system of financing the internal trade by cash credits and the difficulty of securing an adequate volume of *hundis* for the purpose, the Bank would be authorised to make loans and advances repayable on demand, or within 90 days, against the security of promissory notes of any scheduled bank or a provincial co-operative bank on certain conditions.

Finally elasticity is imparted to the whole system by the provisions of the Act relating to the suspension of the reserve requirements.

### SCARCITY OF BILLS

Indian Joint-Stock Banks hold comparatively a small amount of bills. As compared with their holding of bills their investments (mostly in Government securities) are large. The Central Banking Enquiry Committee found that six Indian Joint-Stock Banks in 1928 held bills of 1,23 lakhs, while their 'Investments' amounted to 20 crores. The explanation partly lies in the attractive yield of Government securities. Further, (a) Government securities



are more helpful in maintaining a liquid position, or obtaining cash, than bills held by joint-stock banks; (b) rediscounting of bills is considered a sign of weakness; (c) the Imperial Bank may not approve of the bills submitted for rediscount—it is prepared to discount only approved bills, or bills approved by it; and (d) the Imperial Bank is itself a competing commercial bank and other banks do not wish it to know all about their bill-holding. The last objection would not apply to the Reserve Bank.

To facilitate the use of bills the Central Banking Enquiry Committee, suggested (1) a lowering of the stamp duty on bills, (2) the stocking for sale by Post Offices of bill forms printed in English and the vernacular, (3) validating of the noting of dishonour and protest by recognized associations of banks, shroffs or merchants, and (4) standardization of customs governing the *hundis*.\*

Of special interest is the Agricultural Credit Department of the Reserve Bank. The functions of this Department shall be (1) to maintain an expert staff to study all questions of agricultural credit, and (2) to co-ordinate the operations of the Reserve Bank in connection with agricultural credit and its relations with provincial co-operative banks and any other banks or organisations engaged in the business of agricultural credit.

\* Sections 592-3 of the Report.

## CHAPTER X

### CO-OPERATION

The establishment of agricultural banks was recommended by the Famine Commission of 1901. The small cultivator all over the country was financed by the Mahajan, who charged exorbitant rates of interest. Far from being a help to agriculture, the *sowcar* had become, as the Famine Commission pointed out, in some places, an incubus upon it.

Even before the Famine Commission of 1901 reported, the subject of co-operation, as a means of providing finance to the small cultivator on reasonable terms, had attracted the attention of some Local Governments. The first step towards the investigation of the possibilities of establishing co-operative credit societies in India was taken in Madras. An indigenous institution called *Nidhis* existed in that Presidency, which were organised on co-operative lines, and had a paid-up capital of 75 lakhs, with some 36,000 members. The *Nidhis* were on the whole working successfully, and they suggested the establishment of co-operative credit societies in India. The Madras Government deputed one of their officers, Mr. (later Sir) Fred. Nicholson to make a study of co-operation, and in 1899 forwarded his monumental report on the subject to the Government of India. The Government of the United Provinces, similarly, had deputed Mr. Dupernex to make enquiries into the

subject in relation to Indian conditions, and his book entitled "*Peoples' Banks for Northern India*" appeared about the same time.

The proposal was then referred in its more general form by the Government of India to Local Governments for preliminary consideration and suggestions. The opinions of Local Governments were considered in June, 1901, by a Committee under the chairmanship of the Finance Member, Sir Edward Law. The Committee reported favourably in 1903, and a draft Bill attached to their report. The proposals of the Committee were referred to Local Governments for criticism, and when their replies had been received, the Government of India took legislative action to create co-operative credit societies.

New legislation was necessary as the old Companies Act of 1832, with its numerous sections and elaborate provisions, was unsuited to the new type of societies intended to be established. Three things, chiefly, had to be done: (1) the new societies had to be excluded from the operation of the general law, and provisions framed adapted to their constitution and objects; (2) it was desirable to confer upon them special privileges and facilities; and (3) it was necessary to take precautions with the object of preventing speculators and capitalists from getting control of them.

The object of establishing co-operative societies was defined as "the encouragement of individual thrift and of mutual co-operation among the members, with a view to the utilisation of their combined credit, by the aid of their intimate knowledge of one another's needs and capacities, and of the pressure of local public opinion."

A two-fold classification of societies into urban and rural was adopted. In the case of both classes it was provided that the members must be small men; that they must be residents of the same neighbourhood; that new members shall be admitted by election only; that loans must be made only to members; and that money shall not be lent on mortgage. Further, the interest in a society held by a single member was limited, so as to prevent an individual from obtaining control of the society; and in order to prevent speculation, shares were made transferable only subject to certain restrictions. The Act passed in 1904 also provided a simple form of registration, and to deal with fraud, or bogus co-operative societies which might be established under the Act, power of compulsory dissolution, subject to appeal to the Local Government, was reserved.

Other features of the Act of 1904 were as follows: unlimited liability was insisted upon in the case of rural societies; it was laid down that profits were not to be directly divided among the members, and that any surplus that might accrue, should either be carried to a reserve fund or be applied to reducing the rate of interest upon loans; the society was forbidden to borrow money without sanction; and pawn-broking was prohibited, but the society was allowed to receive agricultural produce as security, or in payment of a loan.

Limitation of liability and the distribution of profits, subject to the creation of a sufficient reserve fund, were allowed in the case of urban societies.

The privileges conferred upon the societies by the Act of 1904 were as follows: (1) shares and other interest of

members in the capital of a society were exempted from attachment for private debts; (2) societies were relieved from the necessity of letters of administration or a succession certificate; (3) they were given a *lien* upon certain forms of property when created or acquired by means of a loan from them until the loan was repaid; and (4) an entry in the books of a society was made *prima facie* evidence in a suit to recover money due to it. The societies and their operations were also exempted from income-tax, stamp-duties and registration fees, and finally provision was made for compulsory inspection and audit of the societies by a Government officer.

The operation of the Act was restricted to credit only. The chief object of the measure, as we have seen, was to relieve agricultural indebtedness.

The Act of 1904 was amended in 1912, and the amended Act is still in force throughout the country, except in Bombay and Burma, where it was replaced by local legislation in 1925 and 1927 respectively. The amendment of the Act of 1904 was necessary for the following reasons:

(1) The Act of 1904 did not apply to co-operative societies established for production, distribution or other objects, except the provision of credit. The establishment of credit societies had led to the founding of other classes of co-operative societies also, and it was desirable that the privileges extended by the Act to co-operative credit societies should be extended to these other societies.

(2) In the Act of 1904 societies were classified according as they were "urban" or "rural," and the liability of rural societies was unlimited. The distinction was found artificial, and in practice inconvenient. In the Act of 1912 societies were divided into those with limited and with unlimited liability, but the principle was

retained that agricultural credit societies must, as a general rule, be with unlimited liability.

(3) The Act of 1904 did not contemplate that societies with unlimited liability should distribute profits. Such societies, however, had come into existence in several Provinces, and were doing useful work. It was proposed to legalise their existence and to permit an unlimited society, with the sanction of the Local Government, to distribute profits.

(4) The Act of 1904 was framed to meet the requirements of primary credit societies only; it made no provision for the higher finance of the movement. Unions and central banks are co-operative credit societies the members of which are other co-operative credit societies which they finance. They had naturally come into existence soon after the initiation of the movement, and it was necessary to recognise their existence.

The Act of 1912 incorporated these features.

The early history of the co-operative movement in the Punjab is interesting.

A few societies, organised on the co-operative principle, existed in the Punjab before the Act of 1904 was passed. Mr. (later Sir Edward) Maclagan and Captain Crosthwaite founded three societies in the Multan district in 1898, but they were short-lived. The experiment in the Bhakkar sub-division of Mianwali was more successful. Five societies were founded here by Captain Crosthwaite in 1900, and they were working satisfactorily in 1904. The first report on the working of the co-operative societies in the Punjab deals with the period of 5 months; from 26th October, 1901, when Mr. Wilberforce took over charge as Registrar, to 31st March, 1905. Mr. Wilberforce visited various districts of the Province with the object of explaining to the people the principles of the new movement, to select the types of societies to be founded, and to found the societies. He found that the people knew nothing about co-operation. "The vast majority of the people," he says, "had not

even heard of the Act, and I did not meet one who had read it. They had merely heard a rumour that Government was going to relieve their indebtedness." It had been decided that societies should be founded in 5 districts which were selected as specimen districts of each of the 5 Divisions of the Punjab. The districts selected were Karnal, Hoshiarpur, Montgomery, Mianwali and Rawalpindi. Rawalpindi and Montgomery had to be left out as the proposal to start co-operative societies there did not receive encouragement from the local officers.\*

Prospects of success did not seem very bright in the Karnal district where 4 societies were founded. The societies, says Mr. Wilberforce, "are regarded as Government banks, and the experience of persons taking advances from Government has not always been happy, especially in Districts like Karnal, where the people have been accustomed for centuries to being plundered by petty Government officials. At Shamgarh two members have ventured to borrow small sums. Some of the depositors have also borrowed money to show that there is no danger of being plundered."†

The movement met with a certain amount of opposition on the part of the money-lenders. They spread a rumour that those joining

\* The local officers concerned were rebuked for discouraging the movement. The "Remarks" on the first report on co-operation in the Punjab contain the following: "As regards the districts of Rawalpindi and Montgomery, the Registrar seems not to have attempted operations because the Deputy Commissioners concerned discouraged him, and in view of their attitude, no other course was open to him. But His Honour is unable to approve of the action of these officers, who have practically vetoed the selection of districts made by Sir Charles Rivaz, and have pre-judged the experiment because they did not feel sanguine as to its success. Sir Denzil Ibbetson expects active assistance from his District Officers who, if they know their districts as they should do, will have little difficulty in selecting the most promising starting points. They may have their own private opinions about the probability of success, and no one can feel quite sure of the result. But the intention of Government is that this experiment shall have a fair trial, with all the advantages which the co-operation of its officers can give it, and the latter must regulate their conduct accordingly."

† Report for 1904-05, p. 2.

a society would be sued at once on either a real or fictitious claim, and treated with the greatest severity allowed by law against judgment debtors.

The Tahsildars of the Karnal district were to assist Mr. Wilberforce in persuading the cultivators to start societies. An interesting example of how the Tahsildars interpreted their instructions, and of the methods of persuasion employed by them, may be given here. The Tahsildars thought that it was a Government order that societies should be started everywhere. The Tahsildar of Kaithal therefore called the zamindars and lambardars of Kaithal together and told them that the Registrar was arriving shortly, and that before his arrival they must apply for registration. The forms of application were then distributed "on which he ordered the amount of contribution (apparently by way of gift) of each applicant to be entered." However, in all only 5 applications were received. In one case Mr. Wilberforce registered a society, as the people, after understanding the scheme, approved of it. "In the other three cases the coerced contributors were practically all in debt, and naturally saw no advantage in borrowing Rs. 50 or Rs. 100 at 27 per cent from a money-lender to finance a society in which they took no interest and of which they had no knowledge."\*

The movement promised more success in Hoshiarpur, where 3 societies were founded. Mr. Wilberforce found the people ready to listen to any scheme for their improvement. Unlike the people of Karnal they were full of enterprise. Another factor which was favourable to success was the existence of a large amount of capital which could be attracted by well-managed societies. This represented the money remitted and brought home from Australia, Africa and various parts of India.

The *Una tahsil* of this district furnished a brilliant example of spontaneous co-operative effort which deserves to be remembered in the history of co-operative credit in

\* *Report, 1904-05, p. 3.*



the Punjab. This is the Rajput society of Panjavar, a village of average size, situated on the inner slopes of the Siwaliks.

The society was formed in 1892. It was never fostered by the Government, and its existence was unknown for nearly 10 years. The founder of the society was Mian Hira Singh, the lambardar of the village. The cause of the formation of the society may be briefly explained. The undivided common land belonging to the village consisted of about 1,500 acres, of which about 900 acres of sandy, stony soil, which had been recently thrown up on the Panjavar side by the Sohan, was in danger of being washed away, and the rest was exposed to attack by *chos* (mountain torrents). Under the guidance of Hira Singh it was decided by the landowners, 55 in number, who joined the society, to hand over the whole of the undivided land to an elected committee, which was to apply the income<sup>1</sup> from the land (1) in managing and improving the common land, (2) in taking over the mortgages held by outsiders on behalf of the mortgagors, (3) in making ordinary advances, and generally for the improvement of the village.

The Registrar was able to report in 1905 that by taking appropriate measures (planting of grass and trees) the society had saved the land thrown up by the Sohan from danger, and arrested the attacks of *chos* to a great extent. In addition, the society had taken over all the land mortgaged to outsiders at a cost of over Rs. 10,000, and had lent about Rs. 3,000 on short loans at 6 per cent. In view of the success attained by the society the Registrar concluded that the Panjavar type of society was the best for villages

possessing undivided common land, and he endeavoured to start societies of this type in the Hoshiarpur district.

He sought to promote two other types—one which he called the “money-deposit type,” and the other the “Mianwali type.” The money-deposit type had no share capital, but operated with fixed deposits (bearing interest), obtained as far as possible entirely from members, and made advances to members at a higher rate of interest than that allowed to depositors. This type of society was meant for the prosperous villages of the central Punjab.

The Mianwali type was recommended for poor communities. Reference has been made above to five societies founded in the Mianwali district by Captain Crosthwaite. The capital of these societies was raised by voluntary grain subscriptions after the *rabi* harvest. The value of these subscriptions was credited to the member's account, and was not returnable for 10 years. The grain subscribed was partly kept for seed advances at the next sowing and partly sold in order to provide funds for money advances. In the beginning advances were given only for seed and purchases of cattle. Interest was charged at rates varying from 5 to 16 per cent and was generally payable in grain. The society's profit consisted of interest, and in cases of advances for sowing, of the difference in the price of grain at harvest and at sowing time.

The Registrar, however, did not take long to realise that both the money-deposit and the Mianwali types of society were not suited to the Punjab, and were not likely to become popular. The Mianwali type offered no inducement for saving, as it allowed no interest on deposits. In

the money deposit type the element of true co-operation was lacking—the society financed the poorer members with money borrowed from the wealthier members, or at their risk. It was more a philanthropic institution than a co-operative credit society.

“The type of society now coming into favour in the Punjab,” wrote Mr. Wilberforce in his report for 1906-07, “is one adapted from the system popularised in Italy by Signor Luzzati.” In this type, adopted with certain modifications in the Punjab, the members became share-holders by payment of 10 compulsory annual instalments. No dividends were to be declared for 10 years, when three-quarters of the profits were to be divided among the share-holders, the remaining fourth being transferred to the reserve fund.

This type of society, the Registrar points out, was devised not by any Government official, but by the zamindars of the Gurdaspur District. He regarded the share-capital society as possessing special advantages from the point of view of the Punjab agriculturist. The Punjab agriculturist was thrifty enough—encouraging thrift among the Punjabi peasants the Registrar likened to “bringing coal to Newcastle”—but he had to learn to make a proper use of his thrift.\* The dividend which a member of this type of society would receive after 10 years was like a pension, for the sake of which he might forego his petty extravagances. At the same time an institution is created which finances him on reasonable terms.

\* *Report for 1906-07*, p. 3.

In 1906-07, 95 societies working in the Punjab were of the share-capital type, 63 were working only with fixed deposits, and 16 on Mianwali lines.

The progress of the movement was rapid. In the review of the report on co-operation in the Punjab for 1913-14 it was noted with satisfaction by the Government that the Punjab possessed a larger number of societies than any other Province in India, and that the Punjab agricultural societies had collected larger sums as share-capital and deposits than all other societies of the same class in India. In 1913-14 the number of agricultural societies in the Punjab was 2,780, the number of members over 1 lakh, and the amount of working capital about 1 crore.

The development of co-operative societies in the Punjab has been on the lines foreseen in 1906-07. Share-capital preponderates, while deposits from members are comparatively small. In 1932-33 the paid-up share-capital of agricultural credit societies amounted to about 109 lakhs as compared with about 35 lakhs of deposits from members. In the same year, the number of agricultural credit societies was 16,268 and the total working capital over 8 crores.

The growth of the co-operative movement in British India since 1906-07 is shown by the following statement:

	Average 1906-07 to 1909-10.	Average 1915-16 to 1919-20.	1930-31.	1932-33.
Number of societies	1,926	28,477	106,166	105,262
Members of primary societies in 1,000	.. 162	1,129	4,308	4,283
Working capital in lakhs	.. 68	15,18	91,91	95,84

It is seen that between 1915-16 and 1930-31 the number of societies and that of members of primary societies increased about 4 times, and the working capital about 6 times. Since 1930-31 the movement is at a standstill.

Co-operation has so far only touched the fringe of the problem of indebtedness:

PROPORTION OF MEMBERS OF AGRICULTURAL SOCIETIES TO FAMILIES  
IN RURAL AREAS\*

			All societies per cent.	Credit societies per cent.
Ajmer-Mewara	..	..	15.4	15.0
Assam	..	..	2.9	2.9
Bengal	..	..	4.4	3.8
Bihar and Orissa	..	..	3.2	3.1
Bombay	..	..	10.0	8.7
Burma	..	..	3.9	3.7
Central Provinces and Berar	..	..	2.4	2.3
Coorg	..	..	36.2	36.2
Delhi	..	..	11.5	11.5
Madras	..	..	8.3	7.9
N.-W. F. Province	..	..	0.2	0.2
Punjab	..	..	10.9	10.2
United Provinces	..	..	1.8	1.8

Among the major Provinces the largest proportion of the rural population affected by the co-operative movement is in the Punjab, but even in the Punjab 89 per cent of the rural population is not touched by the movement. This proportion for the other Provinces is: Bombay 91.3; Madras 92.1; Bengal 96.2; Burma 96.3; Central Provinces and Berar 97.7 and the United Provinces 98.2. Although

\* Report of the Agricultural Commission, p. 447.

co-operation has achieved much, much still remains to be done.

The following statement shows the number of societies, the number of members, and amount of working capital in 1932-33 in different Provinces:

Population in brackets in millions.	No. of societies.		Numbers of Pri- mary societies.		Working capital.		Annas per head of population.
	Total.	Per lakh in- habitants.	Total, 1000.	Per 1000 in- habitants.	Total, lakhs.	in	
Madras (46.7)	13,870	29.7	898	19.2	17.30	59	
Bombay (21.9)	5,880	26.8	581	26.5	15.81	115	
Bengal (50.1)	23,650	47.2	774	15.4	17.10	54	
Bihar & Orissa (37.7) ..	9,054	24.0	260	6.8	5.71	24	
U. P. (48.4)	5,900	12.2	149	3.0	2.26	7	
Punjab (23.6)	21,085	89.3	688	29.1	18.73	127	
Barma (13.1)	2,336	17.8	73	5.5	2.46	30	
C. P. & Berar (15.5) ..	3,898	25.1	73	4.7	5.39	55	
Assam (8.6)	1,405	16.3	66	7.7	83	15	
N.-W. F. P. (2.4)	382	15.9	12	4.9	16	11	
Coorg (0.2)	252	126.0	15	75.1	13	102	
Delhi (0.6)	283	47.2	9	15.4	27	71	
Total British India (269.5)	88,705	32.9	3,626	13.4	86.74	51	

Ignoring Coorg, the Punjab leads, whether one considers the number of societies per 100,000 inhabitants, or the number of members per 1,000 inhabitants, or working capital per head of the population. But even in the Punjab in 1932-33 the proportion of the population affected by the

co-operative movement was inappreciable—about 3 per cent.

The population of rural Punjab (British territory) in 1931 was 20·5 millions. If we assume that this number represents about 4·4 million families, the proportion of members of agricultural societies in the Punjab in 1932-33 (574,000) to rural families was about 13 per cent.

Of the 105,262 societies in 1932-33, 607 were Central (including Provincial and Central Banks and Banking Unions), 988 Supervising and Guaranteeing Unions (including re-insurance societies), 10,918 non-agricultural societies, and 92,749 agricultural societies (including cattle insurance societies).

Supervising and guaranteeing unions flourish in two Provinces, Madras (405) and Burma (325). The Punjab has no such Unions. The Guaranteeing Union guarantees loans given on its recommendation to member societies. In Madras all societies within a radius of 7 miles are affiliated to a supervising union.

The following information is available about the operations of agricultural societies in British India in 1932-33. 78,000 societies, with 2,578,000 members, made loans to individuals amounting to 383 lakhs, and received (loans and deposits repaid) 467 lakhs from individuals. Loans due from individuals amounted to about 25 crores, of which 11½ crores represented loans over-due. Loans over-due means loans due for payment which have not been paid and for which extension has not been granted. The figure of overdues seems unduly high.

Loans are made by agricultural credit societies for all objects, the most important of them in the Punjab, in the order of their importance, being: debt, cattle, land revenue, trade, ceremonies, land purchase, building, seed, grain, house-hold, land-redemption, fodder and wells. Even loans for litigation are not barred.

The number of cattle insurance societies in India in 1932-33 was 246 (2 in Bombay and 244 in Burma). The number of animals insured was 438, of which 25 were lost.

There are all kinds of non-agricultural societies—societies of small traders and business men, of artisans, menials and labourers, college co-operative stores and big societies like the Lahore Model Town Society, and the North-Western Railway Society, which has a working capital of 34 lakhs and a membership of over 15,000. As regards production and labour societies in the Punjab, the less said the better—such is the Registrar's comment.<sup>1</sup> Industrial societies of artisans have to contend against many difficulties. The Registrar notes that weavers, particularly those working in artificial silk, "are finding it impossible to stand up against machine-produced goods from Japan and elsewhere."<sup>2</sup> There are also non-agricultural thrift and better living societies, the chief object of the latter being the reduction of expenditure on ceremonies. Depression has aided this propaganda. "The villager," says the Registrar, "had some reason on his side who met the better living propagandist with the question: 'Where were you when

<sup>1</sup> Punjab Report for 1932-33, p. 41.

<sup>2</sup> *Ibid.*, p. 46.



our pockets were full'? What is the use of this sermon now when we are broke?"<sup>3</sup>

Co-operators in the Punjab are not lacking in the sense of humour—the Registrar prefers the word 'casuistry.' An old man, a co-operator, married again, the first marriage having been barren, and spent money on the occasion beyond the permitted scale. His society waived the imposition of penalty on the ground that "the expenditure was, in a sense, productive."<sup>4</sup>

Among agricultural societies in the Punjab we may specially mention stock-breeding, milk-recording, better-farming, silt-clearance and consolidation of holdings societies.

### CONSOLIDATION OF HOLDINGS

Consolidation is a remedy against scattered holdings. 62,000 acres were consolidated in the Punjab in 1932-33 (60,000 acres in 1931-32 and 73,000 acres in 1930-31). The number of blocks of land was reduced from 91,500 to 15,400, and the average size of block increased from 0.67 to 4.02 acres. For this work the staff employed (paid by Government) was 8 Inspectors and 104 Sub-Inspectors. The cost to Government was Re. 1-13-1 per acre and 1.13 lakhs in all. This is money well spent, even from the point of view of the Government. The cultivated area increases as the result of consolidation and there is thus more land revenue for the Government.

<sup>3</sup> *Ibid.*

<sup>4</sup> *Ibid.*, p. 51.

The number of new wells sunk following on consolidation operations in the Punjab since the work started is 1,741.

In some districts part of the cost of consolidation operations is borne by the owners concerned.

The advantages of consolidation are recognised; the Registrar states that there is now a brisk demand for consolidation even in villages where no propaganda has been carried on.

At present consolidation is on a voluntary basis, but the question of legislation in this connection (to coerce a minute recalcitrant minority) is being examined.

#### LAND MORTGAGE BANKS

The deposits which the ordinary credit society receives are withdrawable at short notice; the loans made to it are also for short periods. It follows that the ordinary credit society cannot engage in business in which its small resources would be tied up for a long time, or lend money on security which is not easily realisable. Such is the nature of land mortgage business.

It is also obvious that if credit societies refuse to make advances to their members on the security of their land, they will be driven to the money-lender for long-term loans of large amount. Hence the need for a new type of financing agency—the Land Mortgage Bank. }

The first Land Mortgage Bank was established in the Jhang District of the Punjab in 1920, and was for several years the only institution of its kind in India. At present there are 12 co-operative land mortgage banks in the Punjab, 10 in Madras, 3 in Bombay, 2 in Bengal and 5 in Assam.

Our mortgage banks were described by the Central Banking Enquiry Committee (1929) as 'quasi-co-operative.' The purely co-operative type of mortgage bank has no capital, keeps the rate of interest low, and does not aim at profit. "Each member pays a small entrance fee to meet the necessary expenses, initial cost of land valuations and other incidental charges. Credit is created by the issue of mortgage bonds bearing interest and made payable to bearer."<sup>5</sup> The non-co-operative type of mortgage banks, of which a good example is *Credit Foncier de France*, work for profit and declare dividends. The purely co-operative type is represented by the Prussian Farm Mortgage Mutual Credit Associations.

The Central Banking Enquiry Committee made a number of useful recommendations about mortgage banks. They are summarised below:

1. The objects of such banks should be: (a) the redemption of land and houses of agriculturists, and the liquidation of old debts, (b) the improvement of land and methods of cultivation and the building of houses of agriculturists, and (c) the purchase of land in special cases.

2. Loans might be granted for stated periods of 5, 10, 15 or 20 years. The amount of individual loans should be limited to a maximum of Rs. 5,000, and should in no case exceed 50 per cent of the value of the mortgaged security.

3. The repayment of loans should be by a system of equated payments, the whole loan being thus repaid at the end of a period of years.

<sup>5</sup> Report, Central Banking Enquiry Committee, p. 154.

4. The working capital should be derived from two sources, *viz.*, share capital and debentures. The foreign experts whom the Committee consulted suggested that the proportion of debenture to share capital should be 5:1, but the Committee left it to the discretion of co-operators in each Province to raise debentures to the extent they considered necessary. The Committee, however, insisted that the value of the debentures outstanding should in no case exceed the outstanding amount under mortgages given by the borrowers and over which the debenture holder had a floating charge.

5. The debentures should be issued by a central institution, called the Provincial Land Mortgage Corporation, from which the district mortgage banks should be entitled to obtain the necessary finance. This Corporation is to be entirely distinct from the Provincial Co-operative Bank.

6. The Committee definitely recommended that a land mortgage bank should have the power of foreclosure and sale without recourse to civil courts, subject to the right of the aggrieved party to question this action of the bank in the civil courts.

7. The Committee noted that the Land Alienation Act (where it existed) tended to the replacement of the non-agriculturist by the agriculturist money-lender, which necessitated the protection of the small peasant proprietor against the bigger agriculturists; led to the restriction of loans by the non-agriculturist money-lender and enhancement of his rates; and was a source of trouble in so far as it impeded the free transfer of land: "Moreover, the

double object of preventing the free mortgage and sale of agricultural land and the provision of credit for the economic benefit of the agriculturist through co-operative land mortgage banks, cannot easily be achieved."<sup>6</sup> The land mortgage banks must have the right to take possession of land through foreclosure on default of the payment of the instalment of the loan and to sell it. But the sale may be to agricultural classes according to the provisions of the prevailing legislation.

8. Finally, the Committee recommended the development of well-organised joint-stock land mortgage banks for the benefit of land owners who cannot be adequately served by co-operative mortgage banks.

The working capital of the 12 mortgage banks in the Punjab amounts to 20½ lakhs, of which share capital is less than 1¼ lakhs. About 17 lakhs of the total is a loan from the Punjab Provincial Co-operative Bank, and a little over a lakh a loan by the Punjab Co-operative Union. Government has lent Rs. 31,000.

The business of the banks is at a standstill, "their only activities being the collection of their dues."<sup>7</sup> The chief cause of this unsatisfactory state of affairs is the heavy fall of agricultural prices. The burden of the loans taken by agriculturists has increased 3 or 4 times their original value; the borrower is genuinely unable to meet his obligations. The property held by the mortgage banks as security is no longer sufficient to cover the loans; where there have been foreclosures and the taking over of the

<sup>6</sup> *Ibid.*, p. 176.

<sup>7</sup> Punjab Co-operative Report, 1932-33, p. 33.

debtor's lands, it has been found that the total sum to be derived from them was not enough to cover interest charges, the principle remaining unpaid. "Unless," says the Registrar, "the rise in values comes soon, the Banks may have to face considerable losses."<sup>8</sup> There is more than one reason for wishing that the rise in values may come soon, but it is doubtful if any substantial rise in values is coming soon, or at all.

<sup>8</sup> *Ibid.*, p. 40.

## RAILWAYS, IRRIGATION AND WATER-LOGGING

The chief matters of interest in connection with railway administration and policy in recent years are (1) the transfer of the East India and the Great Indian Peninsula Railways to State management, (2) the separation of railway finance from the general finances of the country, and (3) the adoption of a policy of Indianisation of railway services.

The question of the future management of Indian railways was considered by the Acworth Committee of 1920-21 but, unfortunately, the recommendations of the Committee on the subject were not unanimous. The President and four of the members recommended State management, and the other five members management by Companies domiciled in India. In February, 1923, however, when the question of the future management of the East India and Great Indian Peninsula Railways was debated in the Legislative Assembly, the non-official Indian members were able to carry a resolution recommending the placing of the two lines under State management at the close of their contracts. This has been done, but the policy of State management of railways has not been accepted by Government. The Government view is thus explained in the Railway Administration Report for 1922-23: "The Government of India, however, expressed themselves as being so convinced by the almost universal failure of this

method [State management] in other countries that they proposed, while accepting the necessity for taking over the management of the East India and Great Indian Peninsula Railways, to continue their efforts to devise a satisfactory form of Company domiciled in India to take these Railways over eventually on the basis of real Company management" (para 14).

Real Company management is, however, impossible in India. A Company can effectively manage a concern when the money invested is its own and when it enjoys undivided responsibility for management. In the case of the more important lines, however, the greater part of the capital was found by the Government. The Government is the real owner, and it cannot hand over its property to a Company to be managed as the Company pleases.

Company management under Indian conditions means a division of responsibility which does not make for efficiency. It may be possible to show that Company management has succeeded in other countries and that State management has failed, but there is general agreement in India with the view expressed by the Government of India in a Despatch to the Secretary of State, that there is really nothing to choose between a Company managed line in this country and one under State management."\*

Further, Indian public opinion is overwhelmingly in favour of State management, and Indian opinion on such a question is entitled to weight.

The dissenting members of the Acworth Committee

\* *Acworth Report*, para 230.



mention, as one of the grounds which lead Indian opinion to desire State management, the belief that the employment of Indians in the higher grades of railway service will be better secured under State than Company management. This is not the strongest argument in favour of State management, but still it is an argument which cannot be ignored. On the 1st of April, 1924, the percentage of Indians employed on the East India, Great Indian Peninsula and North-Western Railways was as follows:

Percentage of Indians to the total number of	E. I. R.	G. I. P. R.	N. W. R. (Government.)
Officers ..	15.6	11.3	21.2
Subordinates ..	11.4	20.0	36.0

When we remember that it is with money secured on Indian taxation that Indian railways have been almost entirely built, it is scandalous that for purposes of higher appointments the railways should be treated as practically a monopoly of Europeans; the desire to place Indian railways under State management so that Indians should have better opportunities of employment in the higher grades of railway service is a perfectly legitimate desire.

It has been pointed out above that the Government have not accepted the principle of State management of Indian railways. When, however, the question of separating railway finance from general finances was discussed in the Assembly in September, 1924, the following agreement was reached between the Government and the Assembly:

“Government undertook that the arrangements for separation should hold good only so long as the East India Railway and the

Great Indian Peninsula Railway, and the existing State managed railways, remain under State management; that no negotiations for the transfer of any of the railways to Company management should be concluded until facilities had been given for the discussion of the whole matter in the Assembly; and that, further, if any of the above railways were transferred to Company management, the Assembly should be at liberty to terminate the arrangements for separation.”\*

The separation of the railway budget from the general budget was unanimously recommended by the Railway Committee. “We do not think,” they said, “that the Indian railways can be modernised, improved and enlarged so as to give to India the service of which it is in crying need at the moment, nor that the railways can yield to the Indian public the financial return which they are entitled to expect from so valuable a property, until the whole financial methods are radically reformed. And the essence of this reform is contained in two things:—(1) the complete separation of the railway budget from the general budget of the country, and its reconstruction in a form which frees a great commercial business from the trammels of system which assumes that the concern goes out of business on each 31st March and recommences *de novo* on the 1st of April; and (2) the emancipation of railway management from the control of the Finance Department.”

Under the old system the net receipts from the State railways (worked by State and by Companies) formed part of the general revenues of the country, out of which allotments, varying from year to year, were made for capital expenditure. The Mackay Committee of 1907 emphasized the need for adopting a steady annual rate of capital ex-

\* *Railway Administration Report, 1924-25, para 5.*

penditure which could be maintained even in times of difficulty, and they suggested Rs. 18·75 crores as a standard. But the following figures show that actual capital expenditure generally was much below the standard recommended by the Mackay Committee:—

Lakhs.	Capital Programme.	Lakhs of Rupees.
1903-09	.. ..	15,00
1909-10	.. ..	15,00
1910-11	.. ..	16,30
1911-12	.. ..	14,25
1912-13	.. ..	13,50
1913-14	.. ..	18,00
1914-15	.. ..	18,00
1915-16	.. ..	12,00
1916-17	.. ..	4,50
1917-18	.. ..	5,40
1918-19	.. ..	6,30
1919-20	.. ..	26,55
1920-21	.. ..	21,98
1921-22	.. ..	17·82

The stoppage of railway development during the War was inevitable, but even in pre-War years the allotments were below the standard recommended by the Mackay Committee. The consequences to the railways of this policy were serious. "There are scores of bridges with girders

unfit to carry train-loads up to modern requirements; there are many miles of rails, hundreds of engines, and thousands of wagons whose rightful date for renewal is long over-past."\*

The main objection to the old system was that the whole of the excess of railway revenue over expenditure in years in which expenditure was low was utilised for the general purposes of the Government, and no reserve was kept for the railways.

The Acworth Committee unanimously recommended that the whole of railway receipts, after paying the working expenses and interest on capital borrowed by the State for railway purposes, should be at the disposal of the railways, to be devoted to new capital requirements (whether directly, or as security for new debt incurred) or to reserves, or to be utilised in the form either of reduction of rates or improvement of service.

With effect from the year 1924-25 the railway budget was separated from the general budget. Under the convention adopted by the Assembly in September, 1924, the railways make a fixed contribution to the general revenues equal to 1 per cent on the capital at charge of commercial lines *plus* one-fifth of the surplus profits of the penultimate year. In addition to these payments the railway revenues have to pay one-third of the excess over 3 crores of any surplus remaining to the railways after the payment of the fixed contribution as explained above.

The interest on the capital at charge of, and the loss in working strategic lines is borne by the general revenues.

\* *Acworth Report*, para 68.

## GOVERNMENT AND INDIAN RAILWAYS

Of the important railway lines, five are owned and worked by the State; five are owned by the State but worked on its behalf by Companies enjoying a guarantee of interest from the Government;\* two important lines† and many others are owned by private Companies, some of which are worked by the Companies, while others are worked by the State or by the Companies which work State-owned systems; several minor lines are the property of District Boards, or enjoy a guarantee of interest by such Boards.

Over all lines in British India, however, the Government of India exercise general powers of control; they have also a financial interest in all Railway Companies in British India, and a preponderating interest in most of the important railways.

Railway construction started in 1849 when a contract was made with the East India Railway Company for the construction of an experimental line of 100 miles from Calcutta to Mirzapore or Rajmahal, the East India Company guaranteeing a return of 5 per cent on the capital invested; a similar contract was made in the same year with the Great Indian Peninsula Railway for a line from Bombay to Kalvan. The question was considered whether railways

\* The North-Western, Eastern Bengal, East India (amalgamated with the Oudh and Rohilkhand Railway from the 1st July, 1925) and Great Indian Peninsula and Burma Railways are owned and worked by the State. The Bengal Nagpur, Assam-Bengal, Bombay Baroda and Central India, Madras and Southern Mahratta, and South Indian Railways are owned by the State but worked on its behalf by Companies.

† The Bengal and North-Western and Rohilkhand and Kumaon Railways.

should be constructed by the State directly, but Lord Dalhousie held the view that railway construction was not one of the functions of government, and in 1854 the policy of entrusting the work to Companies enjoying a guarantee of interest was adopted. Contracts were made with several Companies between 1854 and 1860 by which the East India Company (or the Secretary of State), besides providing land, guaranteed interest on the capital at  $4\frac{1}{2}$  to 5 per cent (according to the prevailing market rate of interest); it was also agreed that half of any surplus profits earned was to be used towards repaying the Government any sums by which it had made good the guarantee of interest; the remainder was to belong to the shareholders. The railways were to be held by the Companies on leases terminating at the end of 99 years, but the Government reserved to itself the right of purchasing the lines after 25 or 50 years.

The guarantee system did not prove very economical, and in 1862 an attempt was made to promote railway construction by means of subsidies, instead of a guarantee of interest. The system was further developed in 1864. The subsidy took the form of an annual payment for 20 years at a rate not exceeding £100 per mile of line, with an addition in respect of bridges costing more than £10,000. The subsidies, however, failed to attract capital; the two unguaranteed companies that had been formed in 1862 were later given a guarantee of interest. It was recognised in 1869 that unguaranteed Companies could not be expected to play any important part in the development of Indian railways.

Two changes were now made in the Government policy in regard to railway construction. (1) It was arranged with some of the most important of the guaranteed Companies that half of the surplus profits for each half-year should be the property of the Government. This was a more profitable arrangement from the point of view of the Government than the old provision regarding the division of surplus profits. (2) The Government decided to construct railways itself. For several years after 1869 no fresh contracts with guaranteed companies were made except for small extensions.

By the end of 1879 India had 8,303 miles of railway, of which 6,128 miles had been constructed by Companies at an approximate cost of £97,872,000 and 2,175 miles by the State at a cost of £23,695,226.

In 1880 the Strachey (Famine) Commission urged the necessity of a rapid extension of the railway system. In view of the difficulty of borrowing large sums directly by the State for the purpose, the Commission recommended a re-trial of the guarantee system under conditions more favourable to the State. Several Companies were formed after 1880 with a guarantee of interest, but in each case the terms of guarantee given to the Companies were more favourable to the Government than in the case of the first guaranteed Companies. For example, the Government guaranteed 4 per cent interest to the Indian Midland and Bengal-Nagpur Railway Companies, but the Secretary of State was entitled to three-quarters of the surplus profits in excess of all interest charges.

The Government has freely exercised the right that it had reserved to itself of terminating the contracts of the railway Companies. In some cases the lines purchased have been transferred to State management (the Eastern Bengal, the Oudh and Rohilkhund, and Sind Punjab and Delhi lines for example). In other cases the lines were acquired and placed under the management of other Companies with which they were amalgamated (the Madras and the Indian Midland lines); in still other cases the old Company management was allowed to continue but more favourable terms were secured for the State by the reduction of the amount of the Company's capital, reduction of the rate of guaranteed interest and modification of the clauses relating to the division of the surplus profits. This method was adopted also in the case of East India and the Great Indian Peninsula Railways, besides other lines, but these two lines, on the termination of their contracts in December, 1924, and June, 1925, were transferred to State management.\*

\* The relations between the Government and the guaranteed Companies now working railways may be summarised as follows :—

The lines that they work are the property of the State.

The greater part of the capital is the property of the Government, either through having been originally supplied by it or through the acquisition by the Government of the greater part of the Companies' interests on the termination of old contracts.

When funds are required for further capital expenditure, the Government has the option either of providing them or of calling on the Company to provide them. The Company receives guaranteed interest at a fixed rate on its capital; and similar payments out of the earnings are made to the Government. If, after these have been made, surplus profits remain, they are divided between the Government and the Company in the various proportions provided for by the contracts. The Company's share is in all cases only a small fraction of the Government's share.



The total mileage open to traffic at present is about 43,000.

All the contracts, except one, which is for a fixed term of 25 years, are terminable at the option of the Secretary of State, at specified dates; and on termination the Company's capital is payable at par (except in the case of the East India Railway Company, which is for special reasons to receive a terminable annuity instead of a cash payment).

The Administrative control exercised by the Government over the Companies is as follows :—

The Company is bound to keep the line in good repair, in good working condition, and fully supplied with rolling-stock, plant, and machinery; to keep the rolling stock in good repair and in good working condition; and to maintain a sufficient staff for the purposes of the line; all to the satisfaction of the Secretary of State.

The Secretary of State may require the Company to carry out any alteration or improvement in the line, or in the working, that he may think necessary for the safety of the public or for the effectual working of the line.

The Secretary of State may require the Company to enter into agreements, on reasonable terms and conditions, with the administration of adjoining railways for the exercise of running powers, for the supply to one another of surplus rolling-stock, for the interchange of traffic and rolling-stock and the settlement of through rates, and for additions and alterations to, or the redistribution of existing accommodation in junctions or other stations in view to their convenient mutual use.

The train services to be such as the Secretary of State may require. In order to secure a general control over the rates quoted by Companies the Secretary of State has retained power to settle the classification of goods and to authorise maximum and minimum rates within which the companies shall be entitled to charge the public for the conveyance of passengers and goods of each class.

The Company has to keep such accounts as the Secretary of State may require, and these are subject to audit by the Secretary of State.

In all other matters relating to the line, the Company is made subject to the supervision and control of the Secretary of State, who may appoint such persons as he may think proper for the purpose of inspecting the line, auditing the accounts, or otherwise exercising the power of supervision and control reserved to him. In particular, the Secretary of State has the right to appoint a Government Director to the Board of the Company, with a power of veto on all proceedings of the Board. All the monies received by the Company in respect of the undertaking, whether on capital or revenue account, have to be paid over to the Secretary of State. (Appendix A. to Railway Administration Report.)

## ORGANISATION FOR GOVERNMENT CONTROL

The formation of a Railway Board was recommended in 1903 by Sir Thomas Robertson who had been appointed by the Secretary of State in Council as Special Commissioner for Indian Railways to enquire into and report on the administration and working of Indian railways. The Railway Board came into existence in 1905. It was made subordinate and directly responsible to the Government of India in the Department of Commerce and Industry.

On the recommendation of the Mackay Committee on Railway Finance of 1907, the Board was made independent of the Department of Commerce and Industry, though it remained under the administrative charge of the Member, Commerce and Industry Department, as the Railway member.

The Acworth Committee recommended the creation of a new Department of Communications responsible for railways, ports and inland navigation, road transport and post and telegraphs under a member of Council in charge of Communications, assisted by a technical staff consisting, on the railway side, of a Chief Commissioner and four Commissioners. The recommendations of the Acworth Committee were not accepted in their entirety by the Government, but the old Railway Board has been reorganised. The present Railway Board consists of a Chief Commissioner as President, a Financial Commissioner, one Member, 4 Directors, 5 Deputy Directors, 1 Secretary and 1 Assistant Secretary.

The guiding principles in the development of our railway system have been two; humanistic and Imperialistic.

The railway is an important means of famine protection. The heavy mortality in famines in the pre-railway days was principally due to the difficulty of moving grain to the famine-stricken areas. The difficulty has been largely overcome by means of the railway. We have also seen that it was at the instance of the Famine Commission of 1880, which estimated that at least 5,000 miles were still necessary to protect the country from famine, that a more energetic policy in regard to railway construction was adopted.

In the second place, railways have helped in (a) the consolidation of political power and (b) the development of the export of raw produce and the import of manufactured goods.

(a) The most economical method of building up the railway system, as Captain Guenther Voigt points out, would have been to begin from the east or the west coast and to expand the railway net inwards. The lines already built would have helped to carry railway material, and the cost of railway construction would thus have been reduced. But railway construction was started simultaneously from several points, and all considerations of costs were ignored. The object was to link up the three Presidencies, with a view to facilitating the movements of troops from one part of the country to another. The Mutiny had shown that in a country that was practically roadless the rapid construction of lines connecting distant points was of the greatest

political importance. This aim was steadily pursued, and by 1872 trains were running between Lahore-Calcutta, Lahore-Bombay, Bombay-Allahabad-Calcutta, and Lahore-Bombay-Madras.

(b) It has been shown in a preceding chapter that till recently no attention was paid by the Government to the development of Indian manufacturing industries. We have also seen that even at the present time our exports consist mostly of raw products and imports of manufactured goods. Railway policy has stimulated this development. The Indian Industrial Commission drew attention to the favourable rates for raw produce moving to the ports and imported manufactured articles moving up-country from the ports. The effect of such railway rates has been to discourage Indian manufacturing industries. As an example the Industrial Commission quoted the case of hides: the port rates were 50 per cent less than the internal rates, which discouraged Indian tanning. "It would be easy to support the statements made above," the Commission added, "by numerous instances; but the facts are generally admitted."\*

The result of railway policy has been the congestion of industries in port towns. The Commission, with the object of encouraging the diffusion and decentralisation of industries, recommended the adoption of the principle in railway rating that "internal traffic should be rated as nearly as possible on an equality with traffic of the same class over similar distances to and from the ports."†

\* Report, para 271.

† Report, para 272.

Complaints were made not only to the Industrial Commission but to the Acworth Committee and the Fiscal Commission that Indian industries had to pay unfair rates both on their raw materials transported from other parts of India and on their manufactured articles despatched to the various markets. As may be expected the railway authorities believe that the complaints are largely unfounded. The Fiscal Commission thought otherwise.\*

Our railway system has not developed naturally, like the English system, according to the requirements of internal trade and industry. According to Captain Guenther Voigt, the colonial relation between India and England furnishes the key to Indian railway policy in the past as well as the present.†

The effect of the trade depression on railway finance has been discussed in *India in the Crisis*. Attention may, however, be drawn here to the reduced scale of capital expenditure in the years of depression. Between 1923-24 and 1933-34 the capital at charge on all railways in which the State has a financial interest increased from 629 crores to 795 crores, or by 166 crores. In the first six prosperous years the capital at charge grew at an average rate of 25 crores per annum; during the four years of depression, 1929-30 to 1933-34, the average fell to 4 crores per annum. The real increase, however, was greater than this. When allowance is made for various factors, the average increase in capital during the four years of depression is found to

\* *Report of Fiscal Commission*, para 127.

† *Staat und Eisenbahnwesen in British-Indien*, concluding remarks (Julius Springer, Berlin, 1926).

be about 7 crores per annum, which is less than one-third of the average for the first six years.

The railways obtained the services of Mr. Pope, of a British Railway, to ascertain whether further economies were possible on the Indian railways. As a result of Mr. Pope's visit, small organisations have been created on the more important railways to conduct detailed investigations known as 'job analysis.' These investigations cost money, but are the means of effecting economies much greater than the cost. In addition, Mr. Pope suggested directions in which railway earnings might be increased, *viz.*, improved publicity work; increased efforts of salesmanship; closer study of exports, imports and markets; and more elasticity in the quotation of rates and fares.

The following table shows the number of passengers carried by the railways and earnings from passengers:

Passengers carried.	Class.	1913-14 (1000).	1923-30 (1000).	1933-34 (1000).
I	..	715	804	421
II	..	3,253	9,125	5,050
Inter	..	12,000	17,900	10,557
III	..	390,412	606,468	473,585
TOTAL	..	406,380	641,497	489,613

Earnings.	Class.	Lakhs.	Lakhs.	Lakhs.
I	..	69	1,04	76
II	..	89	1,84	1,12
Inter	..	1,03	1,59	1,12
III	..	18,37	34,11	26,79
TOTAL	..	20,98	38,58	30,09

Between 1929-30 and 1933-34 earnings from passengers fell by 22 per cent and the number of passengers carried by 24 per cent. It will be noticed that third class passengers contribute most heavily to railway earnings from passengers, their share being 89 per cent of the total in 1933-34. They deserve better of the railways.

#### IRRIGATION AND WATER-LOGGING

In the year 1911-12 the net area sown with crops in British India amounted to 216 million acres, of which 40·7 million acres were irrigated (18·8 per cent of total). In the year 1929-30 the irrigated area had risen to 51 million acres, out of a total of 228 million acres sown with crops (22·4 per cent). The area irrigated fluctuates from year to year. It amounted to 49 million acres in 1920-21, 43 million acres in 1927-28, and about 49 million acres in 1931-32.

The means of irrigation are canals (both Government and private), tanks and wells. Of all Provinces, the Punjab has the largest irrigated area, 14·3 million acres in 1931-32 out of 31 million acres sown. Of the irrigated area in the Punjab, about 10 million acres were irrigated by Government canals, 400,000 acres by private canals, about 3·8 million acres by wells, and only 33,000 acres by tanks. A large area is irrigated by wells than by canals in the United Provinces. Tanks are of importance in Madras and Bihar and Orissa. Taking British India as a whole, the area irrigated by different means of irrigation in 1931-32 was as follows:

			Million acres
Government canals	..	..	21.6
Private canals	..	..	3.6
Tanks	..	..	6.4
Wells	..	..	11.5
Other sources	..	..	5.6

The reader is supposed to be familiar with the principal irrigation works in India, and particularly in the Punjab. The most wonderful of these is the Triple Canals System, which irrigates the Lower Bari Doab, lying between the Ravi and Sutlej rivers. It was completed in 1917 and commands an area of 4 million acres.

The Sutlej Valley Project will command an area of 5 million acres, of which about 3 million acres are in the Bahawalpur State. The Project has already cost about 21 crores (of which 12 crores was contributed by the Bahawalpur State). The revenue accounts of the Project were opened in 1926-27. The area actually irrigated in 1932-33 was a little over 1.2 million acres each in British territory and the Bahawalpur State. The Thal Project has evidently been abandoned. One learns from the *Punjab Administration Report* for 1932-33 that in that year the Haveli Project "was printed and remained under the consideration of Government." The Haveli Project will bring 375,000 acres of waste-land under cultivation. The financial aspects of the Bhakra Dam Project are also being examined.

Tube wells as a means of irrigation have been tried in the United Provinces and the Punjab. Irrigation from



tube wells has been found to be expensive—it pays only when valuable crops like sugar-cane, potatoes, and tobacco are grown by intensive methods of cultivation.

While there cannot be any dispute about the benefits of canal irrigation, its rapid development in the Punjab has given rise to one of the most serious problems that the Province has ever been confronted with—water-logging.

The consequences of water-logging are so terrible, whether viewed from the standpoint of the fertility of land and agricultural production, or that of the general health of the population, that the subject is well worth our attention.

There is no agreement as to the precise definition of water-logging, but for our purposes we may define the term as the rise in the level of sub-soil water which renders land unfit for cultivation.

The approach of the danger is marked by certain well-known stages. At first, for one or two years, *barani* crops are unusually successful and there is a spontaneous growth of a rich crop of *maina*. In the third year patches *kallar* (salts) begin to appear on the affected fields, and seed does not germinate on these patches. Yields begin to diminish and the patches extend until they cover the whole field. Depressions in close proximity to the canal remain permanently damp and have water of a rusty colour. The spring level rises and comes close up to the surface of the land. Houses in the *abadi* begin to crumble to dust and eventually collapse. An abnoxious odour is emitted by *abadies*, and drinking water tastes raw.

Water-logging is due to the rise in the spring level. When it has risen so much that it is only within a short distance of the ground surface, water is drawn up by capillary attraction, as a piece of blotting paper, whose edge is dipped in water, sucks up water. The affected land then is covered with *kallar* and finally it is turned into a swamp.

If a well is sunk in any place, water is found at a certain depth. It may be nearer the surface in one place and at a greater distance in another. Suppose water is found at a distance 20 feet from the ground surface. In technical language it will be said that the spring level or the water-table is 20 feet below the surface. Now if the water were pumped out, the well would be found to be full again after a certain time.

More exactly, the spring level may be defined as the level up to which the underground soil is completely saturated with water. The terms spring level and water-table are often used interchangeably, but the "spring level" refers to a particular locality, say a village, while the water-table refers to a wider area.

The sources of sub-soil water in a tract are mainly three:—

(1) Percolation from the rivers and hills bounding the tract.

(2) Rainfall.

(3) Percolation of canal water, which may be subdivided into percolation (a) from main canals and branches, (b) from distributaries, (c) from water-courses and (d) of water put on the land.

Percolation of water from rivers can never cause water-logging. The level of water in a river is much below the ground surface and the spring level cannot rise above the river level (canal irrigation is flow irrigation, or by gravity, and the level of water in the canal must be higher than the ground level).

Secondly, water-logging is not caused by rainfall. In the first place, when light rain falls on thirsty soil, the soil, as it were, drinks it up. In such a case no water percolates to the water-table.

Suppose now there is a heavy and continuous down-pour for several days. A considerable part of it would be immediately carried away by surface drainage; a part would be lost by evaporation and part by transpiration through vegetation. The remainder, a very small proportion of the total rainfall, will percolate to the water-table and cause it to rise, but temporarily. After the rains are over, in the dry period which follows, the water added to the sub-soil reservoir will be carried away by the sub-soil flow, and the water-table will be reduced to its previous normal level.

Of course when, on account of the canals, the spring level has already risen in a tract to within a short distance of the ground surface, rainfall may raise the spring level further, and water-logging may appear.

The action of canals on the water-table is both direct and indirect. Indirectly, when a canal has been so constructed that it intersects all the drainage lines of a tract, like the old Western Jumna Canal, by obstructing the surface drainage it will cause rain or flood water to be

held up, and some of this water must, passing through the sub-soil, be added to the water-table. This also applies to irrigation channels and zamindars' embankments which obstruct the natural drainage of a tract.

As for the direct action of canals, if nothing intervened between the bed of a canal and the spring level, water percolating from the canal would fall vertically until it reached the spring level. But the whole space between the spring level and the canal bed is filled with soil. The soil nearest the sides and the bed of the canal first gets moist, and percolation goes on spreading on all sides until the spring level is reached. The spring level then begins to rise. The water added to the spring level would tend to flow away, but when the inflow of water owing to percolation exceeds the sub-soil outflow, the spring level continues to rise until equilibrium is restored by its rising above the ground level. When this happens, the whole of the area surrounding a canal becomes water-logged.

It has been estimated that of the water taken in at the head works of the Punjab canals, about one-third is lost in the main canals and branches. Of the remaining water, that is water in the distributaries and water courses, and that supplied to the fields for actual irrigation, also one-third percolates to the soil to raise the spring level.

In certain tracts, such as the Upper Bari Doab, we are told that equilibrium has been reached as regards the inflow and the sub-soil outflow of water and the spring-level there is not rising. "In others," says Mr. Wilsdon, "there are no signs that such an equilibrium will be attained before the water-table reaches the surface of the soil, whereby much

valuable agricultural land will become lost to cultivation." Mr. Wilsdon refers to the steady rise of the water-table in these tracts and says: "We are thus faced with the immediate problem of saving valuable land and cities threatened within a few years, as well as the ominous trend in the water-table."\*

It should be noted that any rise in the water-table is not disadvantageous. In fact, among the indirect benefits of irrigation, mentioned by the Irrigation Commission of 1901—03, was "the effect of irrigation and of large water storage works in increasing the humidity of the air, and in raising the level of the underground water supply." The rise in the level of sub-soil water is advantageous as it makes well-sinking and the working of wells easier. It is also good for the crops as it increases the moisture of the soil. An expert witness stated before the Agricultural Commission that if the sub-soil water can be kept at a certain depth below the ground level, 15, 18 or 20 feet, that water-table is a gold mine.† The water-table ceases to be a gold mine and becomes a curse only when it rises to within a short distance from the ground surface, say 3 or 4 feet. It then becomes a grave source of danger to public health as well as to cultivation. In the interests of health the water-table must not be allowed to rise to a distance of 3 to 15 feet from the ground surface.

Water-logging is an old problem and it has a history.

The worst instance of water-logging is perhaps that related in the District Gazetteer of Karnal (1892) on the

\* Agl. Com. Evidence, Vol. VIII, p. 410.

† Agl. Com. VIII, p. 457.

Western Jumna Canal about a hundred years ago. It produced such horrible results that one hopes that the lessons taught by this history will never be forgotten.

The Western Jumna Canal is an old canal. It was constructed by Firoze Shah Tughlak in the 14th century. Water was taken from the right or western bank of the Jumna and carried over a distance of about 150 miles to irrigate the King's favourite hunting ground at Hissar. The canal silted up during the reigns of Firoze Shah's successors, but it was repaired during Akbar's reign by the Governor of Delhi for the irrigation of his private estates. The canal stopped again about the year 1647. It was repaired under the direction of Ali Mardan Khan, the celebrated engineer of Shah Jahan, and a new channel excavated to carry water into the city of Delhi. During the decline of the Moghul Empire the canal again gradually silted up until it ceased to flow. One does not know when the next repairs were carried out, but in 1820, 155 acres were irrigated from the canal and the irrigated area increased rapidly to 33,000 acres in 1825 and 321,000 acres in 1840.

A famine visited Karnal in 1833-34 and caused heavy loss of life. The famine gave a great impetus to canal irrigation. The demand for water increased and the area irrigated was limited only by the means of supply. The failure of the rains in 1836-37 increased the demand for canal irrigation still more. Strenuous efforts were made by irrigation officers to increase the supply, and every facility was offered to such villages as would make use of the water. In most cases the old imperial water-cuts still existed, which the village people were allowed to clear out and use; or they made themselves a channel straight from the nearest point on the canal from which water would flow to their fields. The Government constructed new large distributaries and deepened, enlarged and extended the old ones. The main channels were also deepened and their banks raised till the water in them touched the crown of the arches in the bridges. Most of these extensions were made hurriedly

under the pressure of urgent need. The system of embankments of the canal had been constructed with so little reference to the natural drainage that it intersected all the drainage lines of the tract and threw back the surface water over the surrounding country. The carrying capacity of the canal, whose alignment was faulty, and of the channels, says the District Gazetteer for Karnal, "has been so increased that in most parts the surface level of the water, and in some places the bed of the canal, is above the surrounding country, and the water is thus forced into the sub-soil by hydraulic pressure."

In addition to this forcing of water into the sub-soil by hydraulic pressure, there was over-irrigation. One may say that most canal-irrigated tracts suffer from over-irrigation, on account of the wasteful methods of irrigation practised by the cultivator. Canal irrigation is not like well irrigation. Every drop of well water costs time and effort. Not a single drop of well water is wasted as it means so much labour for men as well as cattle. But in the case of canal water the same reasons for economy do not exist. A second important point may next be noted. The well water is itself drawn from the sub-soil water. When it is used for irrigating a field, a certain amount of it is lost by evaporation and transpiration through vegetation, and to that extent the sub-soil supply is reduced. The canal water is not drawn from the sub-soil supply, and excepting that part which is lost like well-water, all the canal water that is used for irrigation represents an addition to the sub-soil supply.

What was the combined result of a faulty alignment of the canal, a wrong system of embankments and over-irrigation? "The result is," says the District Gazetteer "that the whole country is water-logged by the canal water being forced into it from below, while the cultivator drenches it from above." And when heavy rain came, it fell upon a country already saturated with water. For miles and miles the whole country was covered with water.

Not only was cultivable land thus turned into swamps; *kallar* soon appeared. It has been explained above that when sub-soil water has risen to within a short distance of the surface it is drawn

up to the surface. On evaporation it leaves the salts it contains deposited, and this process repeated for several years covers the soil with a layer of alkaline salts, lying like fresh fallen snow, often 3 to 4 inches thick. The soil is now useless for cultivation. Such grass as is able to spring up in the salt-impregnated land gives the cattle diarrhœa, enfeebles and eventually kills them. The whole country exhales from its putrifying vegetation a malaria which destroys the vitality of the cultivators and kills them by fever and spleen disease.

In 1841 an epidemic of fever ravaged the whole of the Delhi territory and the mortality was so great that in many places the crops died for want of persons to look after them. Two years later another and even more terrible epidemic devastated the country. This led to the appointment of a committee by the Government of India to investigate the matter, and a further enquiry was made in 1867 by Surgeon-Major Adam Taylor. Both enquiries conclusively proved that the effects of water-logging on the health of the people in the canal tract had been disastrous. Another enquiry had been made by Mr. Sherer in 1856. He showed that the water level had been raised by the canal from some 60 feet to, in many places, two or three feet from the surface, and that the fertility of soil had been very greatly diminished. In his report he spoke of "the miserable disease engendered by the tainted water and malarious exhalations of the soil: of the spectacle of sick women and diseased children crouching among the ruins of their houses (for in many cases the rafters had been sold); of haggard cultivators wading in the swamps and watching their sickly crops, or attempting to pasture their bony cattle on the unwholesome grass."\*

We learn from the District Gazetteer that an estimate for remodelling the canal amounting to 72 lakhs was sanctioned in 1871 and this was increased to 102 lakhs in 1881. In 1885 a full supply was carried in the new main channel. With the remodelling of the

\* Karnal District Gazetteer, 1892, Appendix.



alignment of the canal, and the draining of the depressions in the ground surface by a well designed system of drains, water-logging ceased.

The spring level was only some 7 or 8 feet below the surface in the civil station and other environs of Amritsar City in 1913. "Twenty years ago," says the author of the Settlement Report of the Amritsar District, 1910—14, "the last Settlement Officer estimated that the water level had risen about 10 feet in the Amritsar Tehsil between 1865 and 1892 owing to infiltration from the canal and to a smaller extent in the other two Tehsils." The rise steadily continued after 1892, which Mr. Craik estimated at not less than 6 feet in 1914 where canal irrigation was most profuse. Widespread floods had occurred in the Amritsar District after the very heavy rainfall of August and September, 1908, followed by a severe epidemic of malaria, in which mortality "reached the appalling figure of a plague epidemic." The connection between water-logging and the epidemic was obvious, and efforts were made to improve sanitation by deepening and widening natural drainage channels, and the provision in some localities of artificial drains. In 1911-12 again conditions in and around Amritsar became very insanitary, due to the steady rise in the sub-soil water level. The proposal to curtail irrigation was considered, but the Settlement Officer was doubtful if such curtailment would have the desired effect of lowering the water-table, and he was certain that it would provoke great resentment among the peasantry. Canal irrigation, as is well known, costs much less per acre than well irrigation, and in all parts of the district the number of

wells has steadily decreased with the expansion of canal irrigation. Finally in 1912 it was decided to replace canal irrigation on about 9,000 acres in the affected tract by water pumped from tube-wells. The Amritsar pumping scheme consists of 15 tube-wells sunk in a line nearly 4 miles long with a pumping capacity of 30 cubic feet per second. The scheme cost 5 lakhs. Financially it has been a loss, but the water-table has gone down and the sanitary condition of Amritsar has improved.

The foregoing historical account of water-logging is interesting for two reasons: first, it serves to illustrate the effects of water-logging, and second, it suggests the remedies.

We have seen that when a canal is so constructed that it obstructs the natural drainage of a tract, a remodelling of the canal may be necessary. This means the construction of a new channel, as was done in the case of the Western Jumna Canal at a cost of over a crore of rupees. Fortunately, we are told, the later canals leave little to be desired in this respect.

The question of improving the natural drainage of the country has been engaging the attention of the Government for a long time. A Drainage Board was constituted in 1918. The Board dealt only with water-logging in rural areas and concentrated its attention on certain specific schemes in the Amritsar, Lahore and Karnal districts. From the 1st April, 1926, the Punjab Drainage Board was reconstituted under the name of the Rural Sanitary Board. It is concerned with measures intended for the benefit of rural as distinct from urban areas, the latter being in charge of the Urban Sanitary Board.

To prevent percolation from a canal to the water-table the banks and the bottom of the canal are sometimes water-proofed. The Gang Canal, which takes out from the Sutlej at Ferozepore and carries water for irrigation to the Bikaner State, is lined for its entire length of about 82 miles with concrete. The lining of a canal is very expensive. Apart from the cost of construction, the lining of the Gang Canal cost about a crore. The expense of lining all the Punjab canals and distributaries would be enormous.

The lining of a canal is not simple. This may be judged from the statement of an irrigation engineer before the Agricultural Commission. "There is one area," he said, "where water-logging threatens to be most severe. There is a feeder canal called the Upper Chenab which takes water from the Chenab to the Lower Bari Doab. It runs constantly, and is a big 200 feet canal with a depth of 10 to 11 feet. How are you going to line such a channel as that?"

Lining, again, is only a partial remedy. We have seen that of the water actually put on the land for irrigating a field, about one-third goes down to the water-table. Lining will not prevent the rise of the water-table due to percolation from the fields and cultivators' channels.

Apart from the opening out of closed and obstructed drainages, the only two remedies against water-logging which have been found to be effective are (1) replacing canal irrigation by irrigation from wells and (2) by pumping from sub-soil. It is thought that as soon as the spring level in a tract tends to rise within 10 feet of the natural surface, the restriction of canal irrigation in the manner

stated is necessary to check the further rise of the spring level.

It is a matter for regret that the area irrigated from wells in the Punjab has decreased steadily on account of the extension of canal irrigation to tracts formerly dependent on wells. It amounted to 4.6 million acres in 1868-69, 3.9 million acres in 1920-21 and 3.8 million acres in 1931-32. The explanation lies in the fact that the cost of irrigation from canals is very small as compared with that from wells. The figures given by the Agricultural Commission are Rs. 3.8 per acre for canal irrigation and no less than Rs. 22 per acre for irrigation from a well. In view of the great difference in cost, it is not surprising that wells have been superseded by canals as the source of water supply in the areas served by the canals.

Incidentally it may be mentioned that the difficulties connected with the construction of wells by private enterprise are very great where the holdings are very small in size and where there is much fragmentation of holdings.

It will be easily understood that the restriction of canal irrigation by turning some perennial canals into Kharif canals is resisted by the zamindar. An example is given by R. B. Wazir Chand Chopra, Superintending Engineer, in his interesting note printed in Vol. VIII of the Evidence given before the Agricultural Commission. In the case of the upper reach of the Hafizabad Distributary, where irrigation was once abandoned on account of water-logging, and where some improvement had taken place as the result of the construction of seepage drains, the restoration of irrigation was contemplated for Kharif crops only,

but, as a matter of fact, perennial irrigation was sanctioned in the end.

It is obvious that where water-logging is threatened, canal irrigation must be restricted. It means hardship for the cultivator on account of the much greater cost of well irrigation, but water-logging means disaster.

We have seen that pumping from sub-soil has been successfully tried in Amritsar. The chief hope of success in dealing with water-logging lies in the development of schemes of pumping sub-soil water by means of tube-wells. This water can, of course, be utilised for irrigation in the place of canal water. The cost, however, will be greater. It is estimated that the cost of water pumped from the sub-soil will be about Rs. 10 per acre. In order that the pumping installation may pay (in Amritsar it is working at a loss) the consumer may have to pay a rate of Rs. 12 to Rs. 15 per acre compared to the present canal rate of less than Rs. 5 per acre.

In this connection the progress of the Mandi Hydro-Electric Project (opened in March, 1933) will be watched with great interest. The Mandi scheme utilises the waters of the river Uhl, which joins the river Beas at a point about 5 miles east of Mandi, for generating electric power. When the whole scheme is in operation, power could be supplied to over 47 towns, extending from Delhi and Rohtak in the south to Sialkot and Lyallpur in the north, at a very cheap rate. The development of the scheme is of considerable importance from the point of view of remedial measures which are to be adopted for dealing with water-logging. By providing a cheap source of power for the

working of tube-wells, the Mandi scheme may make an important contribution to the solution of our problem.

Finally, we may consider the means of preventing over-irrigation, or the enormous waste of canal water by the cultivator. We have seen that over-irrigation must tend to increase the sub-soil water supply. It has been estimated that the amount of excess water applied to crops such as wheat in Northern India is from 30 to 50 per cent. In the Punjab water is charged for by the area of the crop matured, and the rate per acre differs for different crops. When water is sold per acre, and not by volume, the cultivator has no incentive to be economical in the use of the water. The Agricultural Commission were also of opinion that wastage is also caused by the uncertainty of supply. In the case of well irrigation, the source of supply, the well, is always at hand. The supply is certain, which renders it unnecessary for the cultivator to apply water to his crops in excessive quantities at any time, quite apart from the question of labour involved in working a well, which effectually prevents waste of well water. "With canal irrigation," to quote the Agricultural Commission, "the cultivator often does not know definitely when the next watering will be possible; he therefore applies water in large quantities in the hope that this will tide him over the period of unknown length during which it is not available" (*Report*, p. 335). The result is not merely an enormous waste of water, but damage to crops and the land.

It is certain that if water were charged for by volume, the cultivator would very soon develop more economical habits in its use. But irrigation engineers generally doubt

if the sale of water by volume to small cultivators is practicable. However, improvements have been made in the existing area system of distribution by means of which considerable economy of supply has been effected.

#### EXTENT OF WATER-LOGGED AREA

The *Punjab Irrigation Report* for 1926-27 stated that the area actually thrown out of cultivation by the rise of sub-soil water to the ground surface was about 125,000 acres, and the *Punjab Administration Report* for the same year estimated that there was danger of expansion of water-logging to the extent of 700,000 acres more. "The area affected has been steadily growing in past years," said the *Punjab Administration Report* for 1930-31. Since then no great change has taken place. In certain districts (e.g., Lahore and Sheikhpura) alkaline area (*thur*) has increased, while in other cases there has been a reclamation of *sem* or swamped areas. The problem is considered "serious"<sup>1</sup> in eleven Districts. It is "most acute"<sup>2</sup> in the area lying between the Jhelum and Ravi rivers.

The Water-logging Board has recommended the adoption of a five-year drainage programme for the construction of a comprehensive net-work of main drains in the Chaj and Rechna Doabs for carrying off rain water. Precautions are being taken to prevent rain water from reaching the sub-soil in critical areas.

<sup>1</sup> The Punjab Administration Report for 1931-32, p. 20.

<sup>2</sup> The Punjab Administration Report for 1932-33, p. 83.

## CHAPTER XII

### RECENT LABOUR LEGISLATION

Problems connected with Indian labour were examined by the Indian Labour Commission, appointed in 1929. The recommendations of the Labour Commission, which covered a wide field may be divided into three groups:— (1) conditions of employment and work, (2) the standard of life of the worker, and (3) general questions relating mainly to the industrial worker, namely, workmen's compensation, trade unions and trade disputes.

As regards hours of work the Commission suggested a weekly limit of 54 with a daily limit of 10 for adults, and 5 for children of from 12—15, instead of the then prevailing 60 and 11 for the former and 6 for the latter. Detailed recommendations were made regarding rest-intervals, spread-over of hours and exemption of factories from the provisions of the Factories Act relating to hours of work.

Working conditions in factories were subjected to a careful examination and recommendations made for improving the welfare and safety of the workers under the headings: Health, Safety, Welfare and Administration. Special stress was laid on amenities for working mothers.

As regards seasonal factories (cotton ginning and pressing factories, tea factories, rice mills and jute presses) the Commission recommended the establishment of standards "which may not be identical with those of perennial factories, but which will be enforced with as much vigour as is applicable to the latter."



The Commission drew pointed attention to certain gross abuses of child labour in seasonal factories, *i.e.*, unhealthy conditions of work, corporal punishment in some places, long hours and low pay (2 annas for 10 or 12 hours of work). The recommendations of the Commission regarding the pledging of the labour of persons under 15 years were meant to apply to all, and not merely to unregulated factories (*i.e.*, factories using power but employing less than 20 persons, or factories using no power but employing substantial numbers of workers).

Weekly hours of labour in mines were fixed by law at 60 above ground and 54 below. Under existing regulations women are to be entirely excluded from underground work after July 1st, 1939. The Commission recommended reduction in hours of work above ground to 54; that recruitment of women for underground work be discontinued; and that children under 14 be excluded from work in or about mines.

The Report of the Commission vividly describes the deplorable housing conditions in industrial areas. The Commission urged the need for town-planning Acts in Bombay and Bengal, and asked the Government to lay down minimum standards regarding cubic space, ventilation and lighting, drainage and sanitation, and to insist on the adoption of model bye-laws issued by them (Government). The Government were also to subsidise in various ways employers' building schemes approved by them. The Commission also recommended the strengthening of the Provincial Public Health Departments and the enactment of comprehensive public health measures. Particular attention

was to be devoted to anti-malarial measures and to maternity welfare; the enactment of maternity benefit schemes was suggested.

The Commission recommended the extension of the Workmen's Compensation Act of 1923, and the improvement of scales of compensation.

In regard to trade unions the Commission recommended that registration of unions should be encouraged and their recognition made easy. The Trade Unions Act was to be re-examined in not less than three years time.

The Commission recommended collaboration between the employer and the Trade Union (where such exists) in the formation and working of Works Committees. Also there should be a larger body of representatives of workers and employers of the industry in the centre concerned. The establishment of some permanent statutory machinery to deal with trade disputes was to be considered before the expiry of the Trade Disputes Act of 1929 in 1934. Meanwhile Government were to utilise their power to establish Boards or Courts where considered necessary or useful. Every provincial Government was to have an officer or officers to undertake the work of conciliation and bringing about private agreement.

The Commission also recommended that in the framework of the future political constitution provision should be made for an Industrial Council which would enable representatives of employers to confer regularly on labour measures and policy. Labour representatives should be elected by registered Trade Unions or, failing these

nominated by Government. The functions of this Council were thus defined:

- (1) to examine proposals for labour legislation referred to it and also to initiate such proposals;
- (2) to promote co-operation and understanding among those concerned with labour policy;
- (3) to advise the central and provincial Governments on the framing of rules and regulations;
- (4) to advise regarding the collection of labour statistics and the co-ordination and development of economic research.

#### GOVERNMENT ACTION ON THE REPORT

Special reports show the action taken by the Government of India and provincial Governments on these recommendations.

Many of the recommendations which involved central legislation have been given effect to in the Factories Act of 1934. This Act repeals the Indian Factories Act of 1911 and the amendments of the Act in 1922, 1923, 1926 and 1931.

*Working Hours of Adults.*—The weekly limit is 54 hours for perennial factories and 60 hours for seasonal factories.<sup>1</sup>

<sup>1</sup> There is no change in the definition of a factory. As before it is a place where power is used in manufacturing processes and not less than 20 persons are employed daily.

Sunday will be a holiday except in cases specially provided for in section 35.

*Daily hours.*—The limit is 10 for perennial and 11 hours for seasonal factories.

There will be a rest interval of one hour after six hours of work, or of  $\frac{1}{2}$  hour after 5 hours work, or two rest intervals of  $\frac{1}{2}$  hour before any one works for more than  $8\frac{1}{2}$  hours.

*Spread-over.*—The periods of work of an adult worker in a factory shall be so arranged that along with his intervals for rest they shall not spread over more than 13 hours in any day.

The Local Government may make rules for adult workers providing for the exemption of workers engaged on urgent repairs, or in work which, for technical reasons, must be carried on continuously, etc., from the rules mentioned above. But no exemption from the provisions of section 36 (daily hours) may be granted in respect of any woman; no woman is allowed to work in a factory except between 6 a.m. and 7 p.m.

Special provision has been made for night shifts, and for extra pay for over-time (ordinarily  $1\frac{1}{2}$  times the ordinary rate of pay).

*Adolescents and Children.*—No child (defined as a person under 15) who has not completed his 12th year shall be allowed to work in any factory; non-adult workers (children and adolescents) shall carry tokens giving reference to certificates of fitness.

No child shall be allowed to work in a factory for more than 5 hours any day, and the hours shall not be

spread over more than  $7\frac{1}{2}$  hours. No child shall be allowed to work except between 6 a.m. and 7 p.m.

Adult labour may not be exacted from an adolescent (defined as a person who is below 17 but has completed his 15th year), unless he has been granted a certificate of fitness to work in a factory as an adult.

Chapter III of the Factories Act of 1934, which is concerned with health and safety, contains provisions relating to cleanliness, ventilation, artificial humidification, cooling, over-crowding, lighting, water, latrines and urinals, precautions against fire and means of escape, safety of buildings and machinery, tests of stability of building or machinery, etc., notice of certain accidents and other matters. The recommendations of the Labour Commission have been carried out.

The Commission had recommended the application of certain section of the Factories Act to unregulated factories. The extension of regulations to unregulated factories raised questions of difficulty "especially at a time when financial considerations make it impossible to contemplate any substantial increase in the strength of the inspecting staff."<sup>2</sup> Government legislative action has been limited to recommendations involving the alteration of the law applicable to factories already subject to regulation. But effect has been given to the recommendation of the Commission that a bond pledging the labour of a person under 15 years exempted for or on account of any consideration should be considered void. The Children (Pledging of Labour) Act

<sup>2</sup> *Second Report showing the action taken by the Government on the Report of the Labour Commission*, p. 8.

was passed in 1933. An agreement to pledge the labour of a child shall be void, but an agreement made without detriment to a child, and not made in consideration of any benefit other than reasonable wages to be paid for the child's services (terminable at a week's notice) is not an "agreement to pledge the labour of a child."

### MINES

A Bill to amend the Indian Mines Act of 1923 was introduced in the Legislative Assembly in January, 1935. It provides for a weekly day of rest, and limits hours of work above ground to 54 a week and 10 in any day. The periods of work along with intervals for rest shall not be spread over more than 11 hours.

The following are the provisions of the bill relating to hours of employment below ground:

(1) The periods of work of a person employed to work below ground in a mine shall be reckoned from the time he leaves the surface to the time he returns to the surface and shall not in any day spread over more than 9 hours.

(2) No such person shall be allowed to remain below ground except during his periods of work.

Work above ground shall not be carried on in any mine for a period exceeding 11 hours in any day, except by a system of relays so arranged that not more than one relay of persons employed in work of the same kind shall be at work in the mine at the same time.

The Labour Commission said that they would "like to see the possibilities of 10 and 9 hour shifts explored, as

well as the more usual 8 hour shift."<sup>3</sup> The bill reduces the daily limit to 11 hours. It was thought that a daily limit of less than 12 was objectionable from the point of view of the workers, who would be unable to maintain the current level of earnings. But the Labour Commission found that some of the larger collieries were working 8 hour shifts, and other collieries 10 hour shifts. "It is significant," wrote the Commission "that at such collieries the attendance and the level of earnings tend to be higher than prevail at collieries working longer hours, and it is not suggested that earnings at such collieries are below the general level."<sup>4</sup>

Some other recommendations regarding mines are under consideration, one of them relating to underground piece-workers. The Commission recommended that underground piece-workers should be credited for purposes of payment with a minimum output for each shift worked, not exceeding the normal daily output of a man of average skill and industry, and that this standard output should be fixed by Mining Boards.

#### PAYMENT OF WAGES

In organised industry in India the monthly payment of wages is the rule. The Labour Commission favoured the adoption of the system of weekly payments, but were not prepared to advocate its general enforcement by Government. They, however, recommended the prevention of

<sup>3</sup> *Report of the Labour Commission*, p. 126.

<sup>4</sup> *Ibid.*, p. 126.

delayed payments. As the Government of India stated to the Commission it was no uncommon thing, and the rule in certain industries, for monthly wages to be systematically withheld until a fortnight after the close of the month to which they related. The Commission's recommendation was that the law should insist on the payment of wages within 7 days from the expiry of the period in which they have been earned in the ordinary case.

The Commission also noted certain abuses in connection with deductions from wages. They found fining common in perennial factories and on railways. Other deductions were on account of medical attendance, education, reading rooms, interest on advances of the labourers' own wages, charities, religious purposes selected by the employer, and various other benefits or causes. A common practice in the textile mills was the handing over to the weaver of cloth from his own loom spoilt in the course of manufacture, and the deduction from his wages of the wholesale selling price. In some mills two days' pay was deducted for one day's absence.

The Commission considered legislation to regulate deductions from wages 'both necessary and desirable.'<sup>5</sup> In the case of children they recommended the abolition of fines by law. A Bill to regulate the payment of wages to certain classes of persons employed in industry was introduced in the Legislative Assembly on the 13th February, 1935.

The Act will apply to factory employees, and, with the exception of section 5, to railway employees.

<sup>5</sup> *Ibid.*, p. 218



Section 5 provides for the payment of wages before the expiry of the 7th day from the last day of the wage-period in which the wages have been earned in the ordinary case.

The Act will recognise 11 kinds of deductions which may be made from wages and no other.\* No child (person below 15 years) can be fined. In the case of adults, stringent rules have been framed to regulate fines. Among other things, the total fine imposed on an individual in a month must not exceed an amount equal to half an anna in the rupee of the wages earned by him in that month. Fines and realisations must be recorded in a prescribed form. A deduction for damage or loss must not exceed the amount of the damage or loss caused to the employer by the neglect or default of the workman. Deductions for house accommodation or other services should not exceed the value of the service rendered, provided the house accommodation or other service has been accepted.

Claims arising out of deductions from wages or delay in payment of wages will be heard and decided by a suitable person appointed by the Local Government.

\* By way of fine; for damage to or loss of goods entrusted to the worker; housing accommodation, or other specified services; recovery from the first wage payment of advances of money given before employment began; advance payment of wages already earned or in adjustment or over-payment of wages; other advances of wages made subject to rules framed by the Local Government; income-tax payable by the worker; deductions made under any order of Court or other competent authority; on account of any recognised Provident Fund; on account of payment to approved co-operative credit societies.

## WORKMEN'S COMPENSATION

The Labour Commission recommended that the old Act of 1923 should now be extended to cover as completely as possible the workers in organised industry whether their occupations were hazardous or not, and that there should be a gradual extension to workers in less organised employments; the Commission also mentioned particular classes which were to be included. In pursuance of these recommendations the Indian Legislature has passed the Workmen's Compensation (Amendment) Act of 1933. The classes mentioned by the Commission have been included.\*

The compensation payable in certain cases is given in schedule IV attached to the Act. In the event of death of an adult workman the amount of compensation payable rises from Rs. 500 when the monthly wage is not more than Rs. 10, to Rs. 4,000 when the monthly wage exceeds Rs. 200. For the same limits of wages, the amount of compensation for permanent total disablement of an adult workman varies between Rs. 700 and Rs. 5,600. In the case of temporary disablement half monthly payments are made: half his monthly wages to the injured workman

\* Workmen employed in factories using power and employing not less than 10 persons, and in factories not using power employing not less than 50 persons; workmen in all mines, except open quarries in which less than 50 persons are employed and no explosive are used; workers employed in docks and in oilfields; certain classes of seamen; workers on tea, coffee or rubber plantations employing not less than 50 persons—no distinction has been made between Government and non-Government plantations; workmen engaged in building work; workmen engaged in connection with the generation and distribution of electrical energy; workmen engaged in the construction, maintenance or demolition of canals, sewers, public roads, dams, embankments, etc.

earning not more than Rs. 10 a month, and rising from Rs. 6 to Rs. 30 in the case of others. The compensation in the case of a minor is as follows: death, Rs. 200; permanent total disablement, Rs. 1,200; temporary disablement, one-half of his monthly wages subject to a maximum of Rs. 30.

In the case of temporary disablement the half monthly payments begin after the expiry of a waiting period of 7 days from the date of the disablement and continue during the disablement, or during a period of 5 years, whichever period is shorter.

The Trade Disputes Act of 1923, as amended in 1932, continues in force. The principal features of the Act are described below:

The Act is divided into three main parts. The first part relates to the establishment of tribunals for the investigation and settlement of trade disputes. If any such dispute exists or is apprehended, the Local Government or the Governor-General in Council may refer the dispute to a Court of Inquiry or a Board of Conciliation appointed for the purpose. On a Board of Conciliation, when it does not consist of independent persons, the parties to the dispute will be equally represented.

Neither party to a dispute would be under any obligation to accept the findings of a Court or the advice of a Board of Conciliation, but the decision of the Court or the Board will be published, and public opinion counts in such matters.

The second part of the Act relates to public utility services. A public utility services is defined as any railway which the Governor-General in Council may so declare for

the purposes of the Act; any postal, telegraph or telephone service; any undertaking or business which supplies light or water to the public; and any system of public conservancy or sanitation. Clause 15 of the Act makes it a penal offence for workers employed on monthly wages in public utility services to strike without previous notice.

The clauses relating to illegal strikes and lockouts follow closely the provisions of the British Trade Disputes and Trade Unions Act of 1927. They apply when both of the following two conditions are satisfied: (1) a strike or lockout must have other objects than the mere furtherance of a trade dispute within the industry concerned, and (2) a strike or lockout must be designed to coerce the Government either directly or by inflicting hardship on the community.

In addition to central legislation already enacted or contemplated, in certain cases provincial Governments are considering legislation on the lines recommended by the Labour Commission. Reference may be made to Bengal Workmen's Protection (against money-lenders) Bill, Bombay Money-lenders' Bill, a Bill introduced in the Bombay Legislative Council in 1933 to amend the Bombay Maternity Benefit Act of 1929, the Bombay Trade Disputes Conciliation Bill of 1934, and the Madras Bidi Factories Bill (non-official). The Labour Commission described *bidi* factories as "small, airless boxes, often without any windows, where the workers are crowded so thickly on the ground that there is barely room to squeeze between them." The statement of Objects and Reasons attached to the Bidi Bill points out that *bidi* making has in recent years grown into a large-scale industry, localized in the city of Madras.

and in certain Moffussil centres. In each of these centres tens of thousands of workers are reported to be employed in *bidi* factories, the number of labourers employed in any one factory ranging from 10 to 700. The Factories Act does not apply to *bidi* factories as no power is used in the process of manufacture. About 50 per cent of the total number of workers are persons below the age of 16. The sanitary conditions are bad, and hours of work range between 12 to 16 per day. The employees do not get regular intervals for meals or weekly holidays.

The Government of India have, for financial reasons, been unable to accept the recommendations of the Labour Commission regarding unregulated factories, but, as the case of the Madras *bidi* factories shows, such legislation is urgently needed.

#### THE STANDARD OF LIVING

An inquiry into working class budgets was carried out by the Bombay Labour Office in 1921-22. 2,473 working class family budgets, and 603 single men's budgets—a total of 3,076 budgets, were collected. About half the budgets referred to cotton mill workers, the remainder being budgets of municipal workers, dock labourers, and railway and engineering workers. The average working class family consisted of 4·2 persons, *viz.*, 1·1 men, 1·1 women, and 2·0 children under 14, exclusive of 6 dependents living away from the family. The average earnings of the family per mensem of all the 2,473 families were Rs. 52-4-6. If we include average earnings in the 603 single men's budgets (Rs. 43-10-3 per mensem) the

average earnings of men for the total of 3,076 budgets drop to Rs. 42-9-6 per mensem. The income of 75 per cent of the families for which budgets were collected ranged between Rs. 40 and Rs. 70 per mensem. How was the income spent? The percentage expenditure on the main groups was as follows:—

Food	..	..	..	56.8 per cent.
Fuel and lighting	..	..	..	7.4 ..
Clothing	..	..	..	9.6 ..
House-rent	..	..	..	7.7 ..
Miscellaneous	..	..	..	18.5 ..
				—————
				100.0 ..

Thus more than half the total family income was spent on food. The percentage of expenditure on food was found to decrease as the income increased, thus confirming Engel's Law. When these results are compared with the results of similar enquiries in other countries it is found that the proportionate expenditure on food in countries with a high standard of living, as the United States, the United Kingdom and Australia, is lower than in India.

The quantity of food consumed by the industrial workers in Bombay was insufficient. "The general conclusion," says the report, "is that industrial workers consume the maximum of cereals allowed by the Famine Code, but less than the diet prescribed in the Bombay Jail Manual." The following table shows the daily consumption of cereals and other articles of food per adult male in lbs. as arrived

at from 2,473 budgets of working class families in Bombay, and the jail allowance:—

Articles.	2,473 FAMILY BUDGETS.		BOMBAY JAILS.	
	lbs.		Hard labour, lbs.	Light labour, lbs.
Cereals .. ..	1.29		1.50	1.38
Pulses .. ..	.09		.27	.21
Beef and Mutton ..	.03		.04	.04
Salt .. ..	.04		.03	.03
Oils .. ..	.02		.03	.03
Others* .. ..	.07		..	..
TOTAL .. ..	1.54†		1.87‡	1.69

It is a remarkable fact that workers in one of the leading Indian industries did not get more cereals to eat than the famine allowance for diggers and that they actually get less than the jail allowance for prisoners. "The standard of comfort," says the report, "is not high. The necessaries for efficiency are not as great as they ought to be."

As regards fuel and lighting, working class families do not use gas or electricity; kerosine and wood represent the whole expenditure under this head. The expenditure on clothing was found to be particularly low in the lowest

\* Includes sugar, tea, milk and *ghee* (clarified butter).

† Exclusive of sweetmeats, condiments, spices, vegetables, fruits, fish, refreshments, and other food for which no estimates were available.

‡ Exclusive of onions, condiments, vegetables and tamarind.

income class (below Rs. 30 per mensem), and it is a cause of indebtedness. As regards housing, 97 per cent of the working class families whose budgets were tabulated were living in overcrowded single rooms.

The working class families, except the highest income class, spent practically nothing on education. At least 4 per cent of the total expenditure was accounted for by drink—the percentage was higher in the case of some classes. The consumption of liquor by the industrial population had increased, and this was probably connected with the conditions under which the industrial workers lived; 47 per cent of the working class families were found to be in debt. The annual rate of interest paid was one anna in the rupee per mensem, or 75 per cent per annum.

#### THE LABOUR COMMISSION'S INVESTIGATIONS

The Labour Commission collected statistics bearing on the income and expenditure of working classes in different parts of the country. They considered the material "inadequate as a basis of any complete treatment of the worker's ills," but the material is still valuable. It may be doubted if any great rise has occurred in the income or standard of living of the industrial worker since the Labour Commission reported.

*Cotton Mills.*—There are considerable variations in wages. In Bombay the average earnings of two-loom weavers in 19 selected mills varied between Rs. 1-9-1 and Rs. 2-1-6 per day. The variations were greater in Ahmedabad. The average monthly earnings of Bombay operatives and the percentage and average earnings of



operatives who worked without any absence are shown below:

Group	Average monthly earnings of all workers.	Workers who worked without any absence :	
		Percentage.	Average monthly earnings.
	Rs. as. p.		Rs. as. p.
Men	.. 37 10 2	53	44 3 6
Women	.. 17 12 4	33	20 4 6
Children	.. 5 10 4	36	6 13 10

These figures are lower for Ahmedabad and much lower still for Sholapur.

In the Madras Presidency wages for weavers in cotton mills were officially reported to be about a rupee, and for male spinners about 10 annas a day; the monthly wages of male weavers in the United Provinces were reported to be Rs. 33, and of male spinners Rs. 25. Punjab, Delhi and Bengal showed higher rates.

*Jute.*—Wages in the jute mills of Bengal in different departments, varied between Rs. 4-5-3 (batching) and Rs. 9-8-0 (sacking weaving), for 60 hours' work.

*Engineering and Metal Industries.*—Wages were highest in Bombay, and lowest in Madras, Bengal, Bihar and Orissa and the United Provinces. Masons in Bombay may earn (monthly) Rs. 50—70, carpenters and blacksmiths Rs. 60—75, and fitters and turners Rs. 65—80. In the provinces named, where wages are lowest, the average monthly earnings of masons were about Rs. 30, of carpenters about Rs. 35, and of blacksmiths, fitters and turners about Rs. 40. Wages in C. P., Burma, the Punjab and Delhi were somewhere between the two extremes.

*Seasonal Factories.*—In the Punjab the rates reported were 8 annas a day for men and 6 annas a day for women. Rates in Madras and the United Provinces were about the same. In the Bombay Presidency the rates were higher and showed considerable variations in different districts.

*Mines.*—The Commission estimated the average monthly earnings of a coal-cutter at about Rs. 10 to 15. In numerous quarries the daily wage varied between 5 annas and 8 annas for men and 4 annas to 5 annas for women.

*Dock Labourers.*—The Bombay Port Trust put the average monthly earnings, including payment for overtime, of dock labourers in its employ at about Rs. 32. In Calcutta the average monthly earnings of stevedore labour were estimated to be about Rs. 20.

*Unskilled labourers.*—The Commission found that while the unskilled labourer in towns earned “appreciably more than the agricultural labourer,”<sup>6</sup> his earnings were usually low. In the industrial centres of Burma and Bombay the rate for men was above 12 annas; it was less than this in Delhi and the Punjab. In Bengal, Bihar and Orissa and parts of the Central Provinces the daily rates were roughly 8 annas for men, 6 annas for women and 4 annas for children.

*Family Income.*—The Labour Commission’s analysis of family income is based on two investigations made into family budgets in Sholapur and Ahmedabad by the Bombay Labour Office in 1925 and 1926. The average monthly expenditure was Rs. 37-13-11 in Sholapur and

<sup>6</sup> *Ibid.*, p. 203.

Rs. 39-5-8 in Ahmedabad. Food, fuel and lighting, clothing and house rent accounted for over 82 per cent of the total expenditure in Sholapur and for 85 per cent in Ahmedabad. "These facts," write the Commission, "are best left to speak for themselves, and it is unnecessary to emphasize the general poverty they disclose."<sup>7</sup> The Commission emphasized the need for improvement in this respect, for poverty of the worker reacts on his efficiency: "Thus poverty leads to bad conditions, bad conditions to inefficiency, and inefficiency to poverty. We believe in attempting to break the vicious circle at as many points as possible. There must be an endeavour to enhance efficiency, to heighten earnings and to improve the conditions of life."<sup>8</sup>

The vicious circle, however, cannot be broken by prescribing minimum wages in all industries. The Commission (as we have seen) recommended the guaranteed payment of a standard minimum output in the case of underground workers in coal mines. Even this is not equivalent to a minimum wage, as the rate of payment has been left unregulated.

*Indebtedness.*—The Commission estimated that in most industrial centres the proportion of families or individuals who were in debt was not less than two-thirds of the whole. They believed that in the great majority of cases the amount of debt exceeded three months' wages, and was often far in excess of that amount. The rates of interest were high, in some cases even 150 per cent or more

<sup>7</sup> *Ibid.*, p. 207.

<sup>8</sup> *Ibid.*, p. 208.

per annum! The Commission were impressed by the number of cases in which an industrious worker was obliged to curtail his expenditure on necessities to meet interest charges "without the faintest prospect of being able to reduct the principal."<sup>9</sup> They made a number of recommendations regarding the attachment of wages and salaries and imprisonment for debt, which are being examined by the central and provincial Governments. Their recommendation for the reduction of the period of limitation for debts and the period within which a decree may be kept alive has however not been accepted by Government. The Government have decided that "no change in the existing law is called for."<sup>10</sup>

*Wages in Assam.*—On tea plantations, the cash earnings of the worker are supplemented by certain concessions: free housing, medical facilities, firewood, free grazing for cattle, and land for cultivation. But the Commission found that few gardens could offer a holding of any size to the majority of the workers; the remaining concessions were of still less importance. The Commission emphasized the importance of cash wages, but the cash wages were low. The average monthly earnings in the Assam Valley (1929-30) were Rs. 13-8-7 for men, Rs. 11-1-7 for women and Rs. 7-8-6 for children, calculated on the assumption that the worker was not absent on a single working day.

There are powerful organisations of employees in Assam, and wages are, in effect, determined by the joint

<sup>9</sup> *Ibid.*, p. 226.

<sup>10</sup> *Second Report*, loc. cit., p. 16.

action of the employers. There are no unions of tea coolies, who are illiterate, speak many different languages, come from different parts of India, and live and work in the comparative isolation of plantation life. "Workers in such a position," concluded the Labour Commission, "stand in special need of protection," and they recommended the introduction of wage-fixing machinery in Assam.

Any impartial reader of the Labour Commission's Report would agree with this conclusion. But Sir Victor Sassoon, a member of the Commission, expressed his dissent in a separate note.\*

Both in their written statements, and in the evidence tendered by them the representatives of the tea-industry opposed statutory minimum wages. The Indian Tea Association wrote: "As so few labourers work the full number of days it is considered that the statutory establishment of a minimum wage is unnecessary and would be difficult to enforce."<sup>11</sup> The Darjeeling Planters' Association described the proposal as "unnecessary and inadvisable."<sup>12</sup> The Indian Tea Planters' Association, Jalpaiguri, considered it absolutely unnecessary.<sup>13</sup> Mr. J. Insch,

\* "If the Assam tea-industry could have been classed as 'sweated' industry, this exceptional treatment might have been justifiable: but, as facts are, it seems to me that the proposed imposition of Minimum Wage Boards would be an act of injustice to a trade in which the worker, according to the Local Government, "can already earn enough to keep him in health and reasonable comfort." (P. 485 of the Report).

<sup>11</sup> *Assam Evidence*, p. 75.

<sup>12</sup> *Ibid.*, p. 85.

<sup>13</sup> *Ibid.*, p. 93.

Chairman of the Indian Tea Association, Calcutta, in his oral evidence said that they had already so fixed their price-rates as to yield an ordinarily diligent coolie not less than a given amount per hour. The Commission failed to understand why, if most of the members of the Tea Association were already doing it, as a body they objected to the fixation of a minimum rate which would bring the worst gardens up to the level of the others.<sup>14</sup> It was pointed out to the Chairman that there was no possibility of collective bargaining as between the tea garden coolies and a body of managing agents as Mr. Insch's Association (*i.e.*, the coolies' employers). Mr. Insch replied that the Tea Association was not primarily concerned in the matter—"so any bargaining will be as between the coolies and the managers."

Q. F. 2947. "What I am asking is whether you as an Association consider that there is any real possibility of collective bargaining between even your managers and the tea garden coolies in their present state of education?"

The incredible reply of the Chairman of the Indian Tea Association was "I think so"!

If practicable, the Labour Commission considered the establishment of statutory wage-fixing machinery in the Assam plantations desirable, and they had good reasons to believe that if proper methods were adopted, a practicable scheme could be devised.

<sup>14</sup> *Ibid.*, Question F. 3943-47.

It is extremely doubtful if such a scheme would ever be devised—none has been devised so far.\*

### INDUSTRIAL DISPUTES IN INDIA

The following statement gives relevant information about industrial disputes in India from 1921 to 1933:<sup>15</sup>

	No. of dis- putes in progress.	No. of work people involved in 1000.	No. of working days lost in 1000.
1921	396	600	6,984
1922	278	435	3,972
1923	213	301	5,052
1924	133	312	8,731
1925	134	270	12,578
1926	128	187	1,097
1927	129	132	2,020
1928	203	507	31,647
1929	141	532	12,166
1930	148	196	2,262
1931	166	203	2,408
1932	118	128	1,922
1933	146	165	2,169

\* We learn that an officer was deputed to Ceylon to acquire experience of the working of wage-fixing machinery there. His report has been received and considered by the Assam Government. "The existing wage-statistics, however, do not supply adequate material regarding the rates of remuneration owing to the lack of correlation between the earnings of the worker and his hours of work. The Government of Assam, therefore, propose to prescribe new forms of wage returns under section 37(2) of the Tea Districts Emigrant Labour Act, 1932; (which came into force from 1st October, 1933). This will be done in consultation with the Controller of Emigrant Labour after he has acquired some practical knowledge of conditions on tea estates in different parts of the Province." (Second Report, loc. cit., p. 106.)

<sup>15</sup> *Bombay Labour Gazette*, May 1934, p. 630.

The four years of depression were, comparatively speaking, years of industrial peace. The total number of disputes between 1930 and 1934 was 578, involving 692,000 work people. The number of disputes in the four most peaceful years 1923—27, was less, 524, but the work people involved in these disputes were 901,000.

As compared with our 146 disputes in 1933, the number of industrial disputes in United States averaged 130 per month in 1933. The United States has, of course, more industries, and more dissatisfied workmen. But the depression has been a period of progress and development for Indian manufacturing industries on the whole. It has not the same meaning for American or European industries.

Of the 146 disputes in India in 1933, 82 occurred in Bombay, 29 in Bengal and 10 in Assam. 87 occurred in cotton and woollen mills, 11 in jute mills, and 3 were railway disputes. As regards causes, 95 disputes were concerned with wages, 19 with questions of personnel, 5 with questions of leave and hours, and 2 with loans, while 25 were due to 'other' causes. The chief trouble, always, and everywhere, is about wages.

### TRADE UNIONS

Mr. N. M. Joshi, of the Servants of India Society, moved a Resolution in the Legislative Assembly in March, 1921, recommending the enactment of legislation for the registration and protection of Trade Unions. The Trade Union Act was finally passed in March, 1925, and came into



force on 1st June, 1927. A Trade Union has been defined in the Act (which is still in force) as "any combination, whether temporary or permanent, formed primarily for the purpose of regulating the relations between workmen and workmen, or between employers and employers, or for imposing restrictive conditions on the conduct of any trade or business." The definition includes any federation of two or more Trade Unions.

The registration of Trade Unions is not compulsory, but any seven or more members of a Trade Union may, under certain conditions, apply for the registration of the Trade Union under the Act.

The two chief features of the Act are the principle of immunity in respect both of civil and criminal proceedings against a Trade Union, and the constitution of a separate fund for political purposes. Only registered Trade Unions will benefit by the legislative recognition of the principle of immunity.

From the political fund payments may be made "for the promotion of the civic and political interests" of the members of a Trade Union. This includes payment of any expenses incurred, either directly or indirectly, in connection with the election of candidates as members of legislative bodies or their maintenance, and the holding of political meeting of any kind, or the distribution of political literature or political documents of any kind.

It is also provided that not less than one-half of the total number of officers of every registered Trade Union shall be persons actually engaged or employed in an

industry with which the Trade Union is connected. The object of this provision is to prevent a Trade Union from passing under the control of outsiders.

The revision of the Act of 1926, in accordance with the recommendation of the Labour Commission, must be now under consideration. It is to be hoped that the conditions attached to registration will be made easier.

The Commission recommended that all unions should be able to secure free of charge the conduct of their audit by Government officials. Local Governments were generally opposed to the adoption of this recommendation on account (among other things) of financial stringency, but effect has been given to it in Madras, C. P., the Punjab and presumably also Delhi. There were two other important recommendations of the Labour Commission, *viz.*, that a registered trade union should not be precluded from initiating and conducting co-operative credit or supply societies, and that ordinarily not less than two-thirds of the officers of a registered trade union (and not one-half as at present) should be actually engaged or employed in an industry with which the union is concerned. The Government view the latter recommendation with favour; on the other recommendation they have decided to take no action, holding that members of a trade union can, under the existing law, form themselves into a co-operative society with a *separate* constitution.

In the year ended 31st March, 1933, there were 170 registered trade unions in India. Of these 147 submitted the returns required under the Act. The following statement shows the distribution of unions by provinces:

## YEAR ENDING 31ST MARCH 1933.

	No. of Regd. unions.	No. of Unions making returns of membership.	Member- ships of unions making returns.
Ajmer-Merwara	2	1	34
Bengal ..	31	29	71,860
Bihar & Orissa ..	4	3	2,397
Bombay ..	44	36	64,169
Burma ..	1	1	115
C. P. ..	11	11	7,305
Delhi ..	10	8	11,749
Madras ..	34	32	48,054
Punjab ..	27	21	21,863
U. P. ..	6	5	9,823
TOTAL ...	170	147	237,369

Railways have the largest number of unions, namely, 28, with a membership of 122,667. Next in importance from the point of view of membership are seamen's union (7) with a membership of 52,361. It is remarkable that the most important group of Indian industries, Textile, has only 21,485 organised workers (21 unions).<sup>16</sup>

The Labour Commission emphasized the need for the development of trade unions: "It is in the power to combine that labour has the only effective safeguard against exploitation and the only lasting security against inhuman conditions." The difficulties of industrial labour are

<sup>16</sup> The figure is so low as to be incredible. *Bombay Labour Gazette*, August 1934, p. 895.

many: (1) the migratory character of the bulk of Indian labour, (2) poverty of the worker, (3) differences of language, (4) social and communal differences, and (5) ignorance, greed and utter incompetence of many so-called labour leaders, who are very often prepared to sacrifice the interests of labour for selfish ends. In the Punjab interest-ed parties have split up unions on the communal issue. Economic interests of workers of different communities are essentially the same, but not the interests of communal leaders.

Perhaps the greatest obstacles to the growth of the movement, in some provinces at any rate, is religion.

## CHAPTER XIII

### MISCELLANEOUS NOTES

#### I. THE STATE IN RELATION TO AGRICULTURE

The Lancashire cotton trade "has frequently exercised considerable influence in shaping the agricultural policy of the Government of India."<sup>1</sup> In 1869 the Manchester Cotton Supply Association suggested the establishment of a separate Department of Agriculture in each Province.

A beginning was made with the opening of a central department—the Department of Revenue, Agriculture and Commerce of the Government of India. This Department functioned from 1871 to 1879.

The Report of the Famine Commission of 1880 eventually led to the establishment of provincial departments of Agriculture, their duties being agricultural enquiry, agricultural improvement and famine relief.

In 1889 Dr. J. A. Voelcker came to India to advise upon the application of agricultural Chemistry to Indian conditions. His report may still be read with interest and profit. There followed some appointments to the scientific staff of the Imperial Department of Agriculture in 1892.

The recommendations of the Famine Commission of 1901 led to the establishment of co-operative credit societies and a great expansion of the Imperial and Provincial Departments of Agriculture after 1905.

<sup>1</sup> *Report of the Agricultural Commission, 1928, p. 15.*

## THE REORGANISATION OF 1905

An Imperial Research Institute was founded at Pusa, but the Institute failed to become "a focus of agricultural activity for all India." The Agricultural Commission found that "the thread of connection between Pusa and the Provinces is becoming more and more attenuated."<sup>2</sup>

Other institutes and organisations controlled by the Government are the Institute of Animal Husbandry and Dairying at Bangalore, cattle-breeding and dairy farms at Karnal, Bangalore and Wellington, the creamery at Anand, the Sugarcane Breeding Station at Coimbatore, and the Imperial Institute of Veterinary Research at Muktesar.

The Report of the Indian Cotton Committee of 1917-18 led to the formation of the Indian Central Cotton Committee in 1921 with a legal status. The Committee is concerned with the improvement of cotton marketing and the prevention of mal-practices. At the same time it carries on agricultural and technological research, serves as a bureau of information, and advises upon the development of cotton growing in the different provinces. The Institute of Plant Industry, Indore, was established in 1924.

The Government of India decided in 1905 to spend 20 lakhs (increased to 24 lakhs later) annually for the development of agricultural research, experiment, demonstration and education in the provinces. Agricultural colleges exist in all provinces. The total provincial expenditure on agriculture amounts to over 2 crores annually.

<sup>2</sup> *Ibid.* p. 45.

Following the recommendations of the Agricultural Commission, the Imperial Council of Agricultural Research has been established. In the budget of the Central Government for 1929-30 a provision of 16.4 lakhs was made for agricultural research, of which 15 lakhs represented the initial grant to a total Endowment Fund of 25 lakhs (50 lakhs suggested by the Agricultural Commission). The Endowment Fund is supplemented by annual grants from central revenues. The work of the Imperial Council of Agricultural Research is to promote and co-ordinate research throughout India and to link it with research in other parts of the world.

Indian agriculture needs a fundamental reorganisation. Our experience during the world crisis suggests that the problem of Indian agriculture is too difficult to be solved by agricultural research or improvement. No real progress is possible without radical changes in the system of landholding and in methods of cultivation. Further, Indian agriculture cannot be modernised unless means are found to divert surplus labour in the villages to manufacturing industries.

## 2. SOIL-DETERIORATION

Is the fertility of the soils of India declining?

In answer to their enquiry the Agricultural Commission were informed that in Bengal, Bombay and Burma there was no evidence of any decline in the yield of staple crops, while in Madras, the United Provinces and the Punjab the tendency was towards a slight increase in return.

According to the Agricultural Adviser to the Government of India, Indian soils reached their state of maximum impoverishment many years ago. The Commission took the view that a stabilised condition had been reached, natural gains balancing the plant food materials removed by crops and other losses: "A balance has been established, and no further deterioration is likely to take place under existing conditions of cultivation."\*

Dr. Voelcker, who wrote the first Report on Indian agriculture (1892), took a different view.†

\* Report, p. 76.

† "It must be accepted as an axiom in agriculture" he says, "that what is taken off the land in crops must in some way be put back into the soil, or else the soil will suffer exhaustion. It is an equally accepted fact that the production of heavier crops means that more manure must be applied to the land. A country which exports both crops and manure must be declining in fertility. Now what is the state of things as regards India? On the one hand there is a large export of oil-seeds, cotton and other products, besides an increasing one of wheat, all of which remove a considerable amount of the soil-constituents. What is returned in their place? Only the straw or the stalks and leaves; and it is not even correct to say that these are returned, for, after all, it is only a portion, and frequently a very small portion, that does find its way back to the soil. Part is necessarily used up in the bodies of the cattle, part is wasted by imperfect conserving and storing of manure, part must unavoidably be lost, however great the care that may be taken; thus it comes about that it is only a fraction that contributes finally to making up the loss the soil has sustained.

"Were, on the contrary, all grains to be consumed by the people, and all nightsoil to be used in agriculture; were all refuse of oil-seeds (after pressing out the oil) to be utilised for manure; were all straw to be consumed by cattle, and the droppings, solid and liquid together, to be carefully preserved; lastly, were all stocks and leaves to be buried again in the land; then the balance might be more nearly preserved. But as things are, the exports of oil-seeds, grain, etc. (that of bones I will discuss later) simply means so much of the soil-constituents *carried off*, for which no adequate recompense is made.

"The consequence must be that the soil becomes gradually poorer, though the effect may not as yet be visible to the eye; for even if the soil be



## 3. ANIMAL HUSBANDRY

The following table, borrowed from the *Report of the Agricultural Commission*, shows the number of bullocks, cultivated area and the number of cultivators in different provinces:

Province.	Per 100 acres of net sown area.		Average.	
	Bullocks.	Cultivators (Male workers).	Area cultivated per yoke. Acres.	Area of holding Acres.
	No.	No.		
Bombay (including Sind)	10	8.1	20.0	12.4
Burma ..	11	11.5	17.9	8.7
C. P. & Berar	15	7.6	13.3	13.2
Madras ..	15	17.3	13.0	5.8
Punjab ..	16	11.2	12.9	9.0
Bihar & Orissa	27	26.8	7.4	3.7
Assam ..	27	27.5	7.3	3.6
U. P. ..	29	29.1	6.9	3.4
Bengal ..	36	35.2	5.6	2.8

still producing the same crops, the *potential fertility* (by which I mean the reserve of constituents for the production of future crops) must be suffering loss, and the capabilities of the soil must be less than under a system of equal giving and taking." *Report on the Improvement of Indian Agriculture*, by Dr. Voelcker, pp. 39-40.

The table shows that the number of bullocks varies directly with the number of cultivators and inversely with the size of the holdings. Bengal has the largest number of bullocks. The size of the holding is smallest in Bengal, and Bengal has also the largest number of cultivators per 100 acres. It may be added that the bullocks of Bengal are easily the worst in India.

In Europe, the Commission said, Holland possesses the largest number of cattle in relation to the size of the country, but as compared with British India's 67 cattle per 100 acres of net area sown, Holland has only 38 per 100 acres of cultivated land. Egypt has only 25. But it has to be remembered that horses in Holland and donkeys in Egypt are largely used in agriculture. "Full grown Dutch cattle may, on the average, weigh twice as much as Indian, and Dutch cows may give anything from five to ten times as much milk as Indian cows."<sup>3</sup>

The Agricultural Commission thought that "India is attempting to maintain an excessive number of cattle."<sup>4</sup> A vicious circle exists here. In order to secure useful bullocks cultivators breed more and more cattle, but, as numbers increase, the quality deteriorates.

How may quality be improved? The Agricultural Commission suggested two ways: (1) the number of bullocks required for cultivation must be reduced through checking the sub-division and fragmentation of holdings, increasing the efficiency of the cultivator's tillage imple-

<sup>3</sup> *Ibid.*, p. 188.

<sup>4</sup> *Ibid.*, p. 191.

ments, and by the adoption of measures aiming at an increase in the strength of the bullocks themselves; and (2) dry cows and cows in calf should receive better treatment than they do at present.

“India must endeavour to effect a reduction in the numbers and an increase in the efficiency of its plough cattle.”<sup>6</sup> But the demand for plough bullocks must grow with the growing sub-division of land and increase in the number of cultivators. When more plough bullocks are demanded, more and more cattle must be bred.

The Commission recommended that efforts should be concentrated on growing more grass in the existing grazing areas, since no large additions to them are possible.

As regards milk supply, the Commission recommended that the breeder of dairy cattle should aim at a cow producing 8,000 lbs. of milk annually (about 11 seers daily). Municipal authorities may provide cow-sheds outside municipal limits and assist in promoting schemes for large scale milk-production and in establishing depôts for the collection, pasteurising and cooling of milk.

#### RECENT STATISTICS

The first general quinquennial census of live-stock was taken in 1919-20, the second in 1924-25 and the third in 1929-30. The Agricultural Commission used the figures of the second census. The figures for live-stock

<sup>6</sup> *Ibid.*, p. 196.

for 1929-30 are compared below with the population of the last census (1931), and the area of 1929-30:

	Bullocks in 1000.	Net area sown in 1000 acres.	Male cultivators (principal occupa- tion, in thousands).
Assam ..	1,684	5,578	1,681
Bengal ..	8,389	23,370	6,394
Bihar & Orissa	7,021	24,958	3,310
Bombay ..	3,410	32,924	3,451
Burma (1931-32)	1,951	17,775	2,598
C. P. & Berar (1931-32) ..	3,984	25,015	3,204
Madras ..	6,001	34,372	7,775
Punjab ..	3,939	26,637	3,542
U. P. ..	10,071	34,346	11,715

#### PER 100 ACRES OF NET SOWN AREA

	Bullocks, No.	Male cultivators, No.
Bombay ..	10.3	10.5
Burma ..	11.0	14.6
Punjab ..	14.8	13.3
C. P. & Burma ..	15.9	12.3
Madras ..	17.4	22.6
Bihar & Orissa ..	24.1	33.3
U. P. ..	29.3	34.1
Assam ..	30.2	30.1
Bengal ..	35.9	35.9

A comparison of these figures with those of the Agricultural Commission is interesting. In each Province the

number of cultivators per 100 acres of net sown area has increased. As regards bullocks, the number decreased in the Punjab and Bihar and Orissa, remained unchanged in Burma and Bengal, and increased in the other Provinces.

The figures for live-stock and ploughs and carts for British India according to the last census (1929-30) are given below:—

	Number in 1,000.			
OXEN—				
Bulls	..	..	..	4,641
Bullocks	..	..	..	47,001
Cows	..	..	..	38,008
Calves	..	..	..	31,723
BUFFALOES—				
Male	..	..	..	5,531
Cow	..	..	..	16,695
Calves	..	..	..	11,163
SHEEP	..	..	..	25,286
GOATS	..	..	..	35,601
HORSES AND PONIES—				
Horses	..	..	..	743
Mares	..	..	..	696
Colts and fillies	..	..	..	236
MULES	..	..	..	75
DONKEYS	..	..	..	1,369
CAMELS	..	..	..	526
PLOUGHS	..	..	..	25,477
CARTS	..	..	..	6,728

(Source: *Agricultural Statistics of India, 1931-32, Volume I,*  
p. 8).

The following table will be found useful for comparative purposes:—

INTERNATIONAL STATISTICS OF LIVE-STOCK. ABOUT 1925.

Population given in brackets in millions.	Per 1000 of the population.				
	Horses.	Cattle.	Sheep.	Pigs.	Goats.
United Kingdom (45.4) ..	3	16	48	8	..
Germany (62.6)	6	27	8	26	6
France (40.7)	7	35	26	14	3
Italy (40.1) ..	3	16	29	6	7
Holland (7.5)	5	27	9	20	4
European Russia (116.0) ..	15	33	47	13	1
Switzerland (3.96)	3	36	6	16	8
U. S. A. (117.1)	14	53	34	48	3
Denmark (3.5)	15	79	8	73	1
Canada (9.4) ..	38	99	29	26	..
Brazil (33.0) ..	16	104	24	49	15
Australia (6.1)	38	219	1,313	15	4
Argentine (10.3)	90	360	382	14	47
India (271.5)	0.6	56	9	..	13

(Sources: For population figures see *International Statistical Year-book of the League of Nations*, 1927, and for live-stock, *Vieh-statistik in Handwoerterbuch der Staatswissenschaften*, Vol. VIII, p. 695. For India the live-stock figures relate to 1929-30 and population is of the census of 1931).

Per 100 of the population India has fewer horses than other countries. Denmark (not Holland) in Europe has

the largest number of cattle relatively to the population. Denmark, Canada, Brazil, Australia and Argentine have more cattle per 100 of the population than India. The figure for the United States, 53, is only slightly lower than that for India (56). If, on an average, American cattle weigh twice as much as Indian, and American cows (like the fearful Dutch cows) give five to ten times as much milk as Indian cows, the United States is really much better off than India, though possessing a smaller number of cattle.

The actual number of cattle in certain countries is given below:

	Cattle in 1000, about 1925.		
Denmark .. ..	..	..	2,756
Canada .. ..	..	..	9,307
Brazil .. ..	..	..	34,271
Australia .. ..	..	..	13,358
Argentine .. ..	..	..	37,065
U. S. A. .. ..	..	..	62,150

Between 1850 and 1925 the number of live-stock in over-seas countries, like the United States and Australia, increased with lightning speed (*blitzartig*). The United States had, in 1850, 4·3 million horses, 17·8 million cattle, 21·8 million sheep, and 30·4 million pigs. The increase in 1925 was about 4 times for horses, more than 3 times for cattle, and a little less than double for sheep and pigs.\*

It is not necessary that the quality of cattle must dete-

\* *Handwoerterbuch der Staatswissenschaften*, Vol. VIII, p. 697.

riorate with increase in their number. But conditions in India are peculiar.

The present writer, during a stay of several months in Holland some years ago, did not have the good fortune to see a single Dutch cow in the towns he visited. It is not suggested that Dutch cows, of which the Agricultural Commission speak, are non-existent. But cows are not so generally visible in European towns as they are in our towns. What one sees in European towns is only their milk.

#### 4. UNECONOMIC HOLDINGS

In his evidence before the Agricultural Commission Mr. Keatinge said that "the agricultural holdings of the Bombay Presidency have to a large extent been reduced to a condition in which their effective cultivation is impossible."<sup>6</sup> Conditions in other parts of India are not very different.

It is stated in the Report of the Agricultural Commission that in the Punjab "the area of cultivated land held by each owner is increasing on the whole."<sup>7</sup> This is incorrect. Net area actually sown in the Punjab in 1922-23 and 1931-32 is shown below:

		Net-work actually sown 1,000 acres.
1922-23	.. . .	.. 26,961
1931-32	.. . .	.. 27,550

The increase in area was 2 per cent; as against this the population of the Punjab (British Territory) increased

<sup>6</sup> *Ibid.*, p. 132.

<sup>7</sup> *Ibid.*, p. 131.



by 14·6 per cent between 1921 and 1931, and the number of cultivating owners and tenant cultivators (taken together—separate figures being not available for 1921), increased by 24·7 per cent. There is no doubt that the area of cultivated land held by each owner in the Punjab to-day is less than in 1921.

In the Punjab 17·9 per cent of the owner's holdings were found to be under one acre. The proportion of holdings under one acre is even higher in some other parts of the country.<sup>8</sup>

The sub-division of land takes place according to our laws of inheritance; it cannot be checked without interfering with these laws.

The creation by legislation of impartible holdings did not meet with the Agricultural Commission's approval. One of the effects of such legislation must be "to create a landless proletariat, which is always a danger," as the Madras Board of Revenue observed.

The sub-division of owners' or right-holders' holdings would give rise to an equal sub-division of cultivation, if all owners were cultivators. But all owners are not cultivators, and many cultivators do not own land. It is actually found that sub-division is greater amongst cultivators. In the Punjab, as an enquiry showed, while 17·9 per cent of owners owned less than one acre, 22·5 per cent of cultivators cultivated one acre or less. The sub-division amongst cultivators, as the Agricultural Commission said, "is aggravated by the lack of alternative means of livelihood

<sup>8</sup> *Ibid.*, p. 133.

which drives multitudes to grow food for bare subsistence."<sup>9</sup>

Fragmentation is also of two kinds. According to the laws and customs governing inheritance each heir is entitled to a proportionate share of each field. This leads to fragmentation of the land of permanent right-holders. Fragmentation of cultivation is much worse; each tenant, unable to rent all land from a single owner, rents small pieces from different owners. In Pimpla Soudager (Bombay Deccan) Dr. Mann found that 62 per cent of the cultivators' plots were below one acre. In Behrampur (Hoshiarpur, Punjab), Mr. Ram Lal Bhalla found that 34.5 per cent of the cultivators had over 25 fragments each.

Consolidation of holdings is being tried as a remedy in the Punjab and other provinces. But unless alternative means of livelihood are discovered, the position of cultivators must continue to deteriorate from decade to decade.

## 5. MARKETING

The Agricultural Commission made a number of useful recommendations, to which effect is now being given, regarding the provision of facilities for the marketing of agricultural produce and the creation of regulated markets.

In the first place, roads, particularly village roads, must be improved. The Commission estimated that the mileage of all roads in India, per 100,000 of the population, was 84 in India (2,550 in the United States), and of

<sup>9</sup> *Ibid.*, p. 133.

surfaced roads 22 (383 in the United States). India possesses excellent main roads, and motoring roads, but in the villages there are no roads at all—only *gadda* tracks. The lack of roads partly explains why the cultivator does not obtain full value for his produce. A second important reason is the cultivator's indebtedness. The village shop-keeper, who is also a money-lender, mercilessly exploits his advantage. There are too many middlemen between the cultivator and the consumer. Their number may be reduced by the provision of good roads and other marketing facilities.

Regulated markets exist in certain parts of the country (Berar and Bombay). A regulated market is established by legislation. It is managed by an authoritative, regularly constituted committee, with the power of levying, collecting and spending fees, issuing licenses to brokers, weighmen and measurers, assigning places for weighing and measuring, fixing the scales, weights and measures to be used and inspecting, verifying and correcting them. Certain allowances are permitted, and all unauthorised allowances suppressed. The establishment of regulated markets will secure to the cultivator better prices, honest weighment, and freedom from illegal deductions.

## 6. THE MANAGING AGENCY SYSTEM

This system is of considerable importance in India for financing industries. Bombay owes much of its industrial development to it. In Bengal the system prevails in jute, cotton, coal and tea industries. In Ahmedabad the system

is described as "an unqualified success."<sup>10</sup> In Bihar and Orissa the Managing Agents provide capital for coal-mining, iron and steel, electrical enterprises, lime factories, mica mines and sugar factories.

The system as it prevails in different provinces is not exactly the same. In Bombay the Managing Agents raise capital from their friends and others, attract private deposits and take loans and cash credits from banks. The Central Banking Enquiry Committee, while not approving of the system, admitted that Managing Agents "have rendered yeomen service to industries."<sup>11</sup> Loans from banks are obtained on the guarantee of the Managing Agents, but the guarantee is not required when advances are made against Government and other Trustee securities.

In Calcutta the Managing Agents are generally the founders of the concerns they manage. They arrange for both block and working capital—they find the money themselves, or raise share-capital, or make arrangements with banks.

In Ahmedabad, when a cotton mill is founded, a small amount of capital (about 25 per cent) is raised by share-capital and the balance is found by deposits and funds supplied by Managing Agents. The deposits are received by mills generally for a year. They are made by individuals and also mill companies. Ahmedabad mills receive practically no assistance from banks.

The Central Banking Enquiry Committee drew attention to the "many serious drawbacks" of the system: (1)

<sup>10</sup> Report of the Central Banking Enquiry Committee, p. 276.

<sup>11</sup> *Ibid.*, p. 211.

Some Managing Agents trade and speculate, besides managing their concerns. When speculation goes wrong, their financial weakness reacts on their concerns. Banks withdraw loans and cash credits. A concern may be intrinsically sound, but may have to suffer for the sins of the Managing Agents. (2) A few cases were brought to the notice of the Committee in which the Managing Agents turned their loans to the mills into debentures, with the result that the mills passed into their hands, and the shareholders lost all their capital. (3) The system works satisfactorily when the industries are prosperous; when bad times come and the Managing Agents have to find more money, they are in many cases unable to do so.

The Committee suggested that industrial enterprise in India should be made less dependent on the Managing Agency system, and that direct friendly relations should be established between industrial companies and commercial banks.

## 7. INDUSTRIAL BANKING

There is a close relation between banks and industries in European countries. In Germany, banks play an important part in providing the greater part of the initial capital of an industrial concern; subsequently this capital is offered to public for subscription, or is sold to clients of the banks, or to banking firms in relation with the banks. It is very common for several banks to join hands in providing the initial capital, and to pledge themselves together

as a *Konsortium* to accept a certain portion of the issue. When new capital is required by an old company, it arranges the transaction with the bank with which it is in permanent banking relations.

In India there are no industrial banks at all; the commercial banks do not provide finance for block capital (fixed assets or plant and buildings). The biggest Indian joint-stock bank, the Imperial Bank of India, cannot lend money to industries on account of the limitation of 6 months on the period of loans made by it, and the prohibition against lending on the security of industrial shares or immovable property. Other reasons for our failure to develop industrial banking were thus stated by the Central Banking Enquiry Committee:

1. Commercial banks usually insist on a full backing of tangible and easily realisable security and take no account of the personal credit and integrity of the borrowers.

2. Banks insist on maintaining a margin of about 30 per cent in regard to advances against stocks and even on a higher margin in regard to stocks in process of manufacture.

3. Banks do not possess technical knowledge necessary for valuing the assets of an industrial concern and for judging whether the concern is profitable and solvent.

4. It is difficult to finance long-term requirements with short-term deposits.

5. There are complaints against the Imperial Bank of racial discrimination in making loans. It is "generally

believed that the Bank lends to European concerns more freely than to Indian concerns."<sup>12</sup>

6. The rates of interest charged to industries for loans and advances are high.

The Central Banking Enquiry Committee recommended the establishment in each Province of a Provincial Industrial Corporation with branches, if necessary, and working with capital initially or permanently supplied by the Provincial Government. The Industrial Corporation may also take long-term deposits from the general public (fixed for at least two years). Money thus acquired should not be lent for longer periods than the currency of the deposits. In cases where Governments subscribe to the share capital or debenture capital of the Corporation, or guarantees the interest on the debentures of the Corporation, it should be represented on the Board of Directors of the Corporation:

The Committee also recommended the formation "when its need is established" of an All-India Corporation to co-ordinate the work of Provincial Corporations and to secure a direct connection with the large spending departments of the Central Government, Government policy in regard to stores, tariff, etc., and railway policy in regard to rates. But the Committee laid more emphasis on provincial industrial banks and felt that provincial banks would be better able to look after the provincial requirements of industries than an All-India bank "even though the latter might have provincial branches."<sup>13</sup>

<sup>12</sup> *Ibid.*, p. 271.

<sup>13</sup> *Ibid.*, p. 286

## 8. EXTERNAL CAPITAL

The following statement shows the number and paid-up capital of joint-stock companies working in India, which were registered in India or elsewhere:—

	1931-32	
	No.	Paid-up capital.
Regd. in British India and at work ..	7,083	275 crore rupees.
Regd. in Indian States and at work ..	915	12 „ „
<b>TOTAL ..</b>	<b>7,998</b>	<b>287 crore rupees.</b>
Regd. outside India but working in British India .. ..	869	£745 millions.
Regd. outside India but working in Indian States .. ..	42	£11 „
<b>TOTAL ..</b>	<b>911</b>	<b>£756 millions.</b>

In 1922-23 the number of foreign companies was 720, and the amount of their paid-up capital about £487 millions. As compared with 1922-23 there was an increase of 55 per cent in the paid-up capital of foreign companies working in the whole of India in 1931-32. The adoption of a policy of protection has something to do with this. In rupees, the paid-up capital of companies registered elsewhere but working in India increased from 649 crores to 1,008 crores.



The more important foreign companies working in British India are the following:

	1931-32	No.	Paid-up capital. in £ millions.
Banking and Loan .. ..	..	29	99.3
Insurance .. ..	..	143	80.4
Navigation .. ..	..	18	41.3
Railways and Tramways ..	..	18	24.8
Trading and Manufacturing Companies .. ..	..	359	309.8
Tea .. ..	..	180	28.2
Mining and quarrying (other than coal and gold) .. ..	..	34	113.4
Jute Mills .. ..	..	5	2.8

We cannot take 1,000 crores as the total amount of foreign capital invested in India. The amount must be more than this as foreigners are not debarred from owning shares in rupee companies registered in British India, or establishing such companies. The interest of Indians in foreign companies is comparatively small.

These figures bring out the importance of the stake of the foreign investor in India. The justification for "safeguards" is also apparent.

The question of "flow of capital into India from external sources" was considered by a Committee appointed in 1925. As the Committee pointed out, the solution of the problem lies in the development of India's own capital resources. Under the existing political and economic conditions foreign capital cannot be kept out. The present policy is to make no discrimination between Indian and foreign capital except when Government grants particular

concessions to an industry; where definite pecuniary assistance, such as a bounty, is granted to any particular undertaking it is required (1) that reasonable facilities should be granted for the training of Indians and (2) in the case of a public company, that (i) it should be formed and registered under the Indian Companies Act of 1913, (ii) it should have a rupee capital, and (iii) a certain proportion of the Directors must be Indian.

These conditions seemed to the J.P.C. Committee "to have been conceived in a very reasonable spirit," and they did not think that any objection could be taken to them. But the Committee suggested a distinction between companies already engaged, at the date of the Act authorising a grant, in that branch of trade or industry which it is sought to encourage, and companies which engage in it subsequently. In the case of the latter the J.P.C. Committee recommended that it may be made a condition of eligibility for the grant that the Company should be incorporated by or under Indian law, that a proportion of the directors (not exceeding one half of the total number) shall be Indians, and that the Company shall give such reasonable facilities for the training of Indians as the Act may prescribe. In the case of other companies (*i.e.*, those engaged in the industry concerned at the date of the Act authorising the bounty or subsidy), no such conditions should apply. Suppose an Act is passed in 1936 granting bounties on the production of card-boards, or newsprint. According to the J.P.C. all existing companies in India, whether they were incorporated in India or the United Kingdom, whether their directors were Indian or

non-Indian, and whether they gave reasonable facilities to Indians for training or rigidly excluded them from their works, are eligible to participate in the grant. This is the strict requirement of the principle of 'Reciprocity.'

### 9. PUBLIC DEBT

The following statement shows the interest-bearing obligations of the Government of India outstanding at the close of each financial year:

IN INDIA—	IN CRORE Rs.	
	31st March, 1929.	31st March, 1934.
Loans .. ..	391	435
Treasury Bills in the hands of the public ..	4	30
Treasury Bills in the Paper Currency Reserve ..	39	18
Total Loans, etc. . . .	<u>434</u>	<u>483</u>
Other obligations* ..	169	218
Total in India .. ..	<u>603</u>	<u>701</u>
Total in England in million	£354	384
"    "    "    "    crore	Rs. 427	512
Total interest-bearing obli- gations .. ..	<u>1,074</u>	<u>1,212</u>
Of these, not covered by assets† .. ..	171	208

Two things may be noted about the Public Debt. First, of the total debt outstanding on 31st March, 1934, about

\* Includes Post Office Savings Banks deposits, Cash Certificates, Provident Funds, Depreciation and Reserve Funds, and Provincial balances.

† The assets include capital advances to Railways, other Commercial Departments, Provinces and Indian States.

58 per cent was held in India. On 31st March, 1914, of the total debt about 65 per cent was held in England. The proportion of the debt held in England is still high. Second, of the total debt, the greater portion is productive (about 1,000 crores) and is represented by interest yielding assets (chiefly Railways).

It is not improbable that when gold exports cease, attempt will be made to maintain exchange by raising sterling loans for the payment of the Home Charges.

The position as regards Permanent Debt in 1934-35 and 1935-36 is shown below:—

		IN CRORE RS.	
		1934-35	1935-36
		(Revised estimate).	(Budget estimate).
<b>PERMANENT DEBT INCURRED—</b>			
In India	.. ..	35.8	25.0
In England	.. ..	3.6	0.5
	<b>TOTAL</b>	<u>39.4</u>	<u>25.5</u>
<b>PERMANENT DEBT DISCHARGED—</b>			
In India	.. ..	33.0	27.6
In England	.. ..	2.6	23.3
	<b>TOTAL</b>	<u>35.6</u>	<u>50.9</u>

In 1934-35 there was a net addition of about 4 crores to the Permanent Debt; in 1935-36 a large reduction is anticipated.

#### 10. DISCRIMINATION AND RECIPROCITY

Adequate steps have been taken to safeguard the interests of British trade and commerce under the new constitution. With the passing of the Constitution Act, the Fiscal Convention will lapse. (According to this Conven-

tion the Secretary of State did not interfere in tariff matters when the Government of India and the Legislature were in agreement.) The need was therefore felt for imposing a special responsibility on the Governor-General to prevent penal discrimination against British imports. Discriminatory or penal treatment covered by this special responsibility includes both direct discrimination (whether by means of differential tariff rates or by means of differential restrictions on imports) and indirect discrimination by means of differential treatment of various types of products. No administrative discrimination will be permitted either.

Trade relations between India and the United Kingdom are to be governed by the principle of Reciprocity, which means that we can impose no conditions or restrictions upon British subjects domiciled in the United Kingdom and Companies incorporated in the United Kingdom to which Indians or Companies incorporated in India are not subjected in the United Kingdom.

There is a special application of this principle to shipping. Ships registered in the United Kingdom cannot be subjected by law in British India to any discrimination whatsoever, as regards the ship, officers or crew, or her passengers or cargo, to which ships registered in British India are not subjected in the United Kingdom.

This principle makes it impossible to reserve coastal shipping to Indian vessels.

Ships registered in India may compete on equal terms with ships registered in the United Kingdom in the British coasting trade, and in the carrying trade between the United Kingdom and foreign ports.

It is extremely doubtful if this privilege that Indian shipping acquires under the principle of reciprocity is of any great value.

### 11. HOME CHARGES

This means the expenditure of the central and provincial Governments in England. The amount was about £16 millions 30 years ago; it is at present over £30 millions annually. The principal items are the following:—

	£ millions.
INTEREST ON RAILWAY DEBT .. .. .	9.0
INTEREST ON OTHER DEBT .. .. .	7.0
CIVIL ADMINISTRATION .. .. .	1.8
MISCELLANEOUS (Territorial and Political Pensions, Superannuation allowances and Pensions, Stationery and Printing, etc.) .. .. .	3.0
ARMY—	
Effective .. .. .	5.2
Non-effective .. .. .	3.7
Marine and other charges .. .. .	0.2
TOTAL ARMY .. .. .	9.1

The Home Charges are in some measure responsible for the 'Safeguards' in the new Constitution. They are the main reason for the maintenance of exchange at a high level, when, for other reasons, a lower rate of exchange would be more desirable.

Whether it is good for a country to have heavy external obligations in the shape of our 'Home Charges' is a question best left to the reader's judgment.

### 12. PROVINCIAL CONTRIBUTIONS

These were contributions, totalling 983 lakhs, which the provinces made to the Central Government when, on

the introduction of the Montagu-Chelmsford Reforms in 1921, provincial finance was separated from central finance. Heads of revenue which were formerly divided between the central and provincial Governments were made either wholly Provincial (e.g., the land revenue) or wholly Imperial (e.g., the income-tax). The result was a deficit in the central budget which was made good by provincial contributions.

The contributions were not intended to be permanent. The growth of central revenue made it possible for the central Government to remit the provincial contributions, with the exception of a small sum, in 1927-28, and they were abolished in 1928-29.

### 13. LAND REVENUE TERMS

*Jamabandi*.—This is a record of rights, or a list of owners' and tenants' holdings, with a detail of the fields contained in each, of the rent paid by each tenant, and of the revenue due from each owner. The list is revised once in every four years.

*Khasra* is an index of all fields, with serial numbers, showing who owns and who cultivates each field, together with the crops grown.

*The Wajib-ul-Tarz* is a record of village customs.

*Kharaba* means failed crops. A 16 anna crop is a crop whose yield is equal to the "standard" yield. When the crop is worse than a 4 anna one, the whole area is returned as *kharaba*. When it is better than a 4 anna crop but worse than an 8 anna crop, half is entered as *kharaba*.

No deduction is allowed for an 8 anna, or better crop. The *jinswar* is the crop abstract.

*Taqavi* advances are loans made by Government for agricultural improvement. They are governed by Act XIX of 1883. Improvement includes wells, drainage, reclamation and other productive objects. The loan is recovered by instalments, which may not extend over more than 35 years. Another Act was passed in 1884 authorising loans to be made to owners and occupiers of land for the relief of distress, the purchase of cattle or other purposes connected with agriculture not specified in the Act of 1883.

*Net Assets.*—The land revenue is supposed to be a certain proportion (now) not exceeding 25 per cent of ‘net assets.’ Net assets are rendered in Urdu by *khalis munafa*, or pure profit. But no exact definition exists.

The Saharanpur Rules, issued in 1855, fixed about one-half “of the well-ascertained net assets” as the Government demand. Before 1855, the land-revenue amounted to two-thirds of ‘net assets.’

*Settlements, Ryotwari.*—This is a peasant-proprietory form of land tenure in Madras, Bombay, Burma and Assam. There are no intermediaries and the cultivator pays directly to the State.

In the village or Mahalwari settlement, the joint-body of co-sharers is regarded as the landlord and is responsible for one assessed sum of revenue. The land revenue is distributed among the co-sharers according to every one’s share in the estate or holding, and the Lambardar made responsible for paying the whole. These settlements are revised periodically, now once in 40 years in the Punjab.



In the Central Provinces, Malguzars are responsible for the payment of the land revenue. In Mahratta times Malguzars or Patels were revenue farmers. They became quasi-proprietors in course of time and were recognised as proprietors by the British. The Malguzaris Settlement is also periodically revised.

According to Statistics given in the *Agricultural Statistics of India, Volume I (1930-32)*, of a total of 668 million acres, 335 million acres in British India (51 per cent) are under *ryotwarī* settlement; 120 million acres under permanent settlement, and 197 million acres under temporary settlement:

	ZAMINDARI (INDIVIDUAL) PROPERTIES OR VILLAGE COM- MUNITIES SETTLED.			TOTAL. Acres (1000)
	RYOTWARI. Acres (1000)	Permanently. Acres (1000)	Temporarily. Acres (1000)	
Ajmer-Merwara ..	..	974	797	1,771
Assam ..	29,796	3,931	1,758	35,435
Bengal ..	..	37,858	11,329	49,187
Bihar & Orissa ..	..	41,840	11,333	53,173
Bombay ..	74,769	..	3,972	78,740
Burma ..	155,850	..	..	155,850
Central Provinces and Berar ..	11,181	..	40,456	64,000
Coorg ..	1,012	..	..	1,012
Delhi ..	..	..	370	370
Madras ..	62,519	29,015	..	91,534
North-West Fron- tier Province ..	..	..	8,437	8,437
Punjab ..	..	..	60,183	60,183
United Provinces ..	..	6,656	53,468	67,726
<b>TOTAL ..</b>	<b>335,127</b>	<b>120,274</b>	<b>197,107</b>	<b>667,533</b>

The following table shows the land revenue demand actually realisable in 1931-32, no account being taken either of the collection of arrears for past years, or of amounts remaining uncollected at the end of the year.

	Total revenue from land (Rs. 1,000).	Total population (1000).	Revenue per head.
			Rs. a.
Ajmer-Merwara ..	3,58	408	0 15
Assam ..	1,31,25	8,622	1 8
Bengal ..	3,00,73	45,793	0 10
Bihar and Orissa ..	1,66,94	36,669	0 7
Bombay ..	4,83,14	20,607	2 5
Burma ..	4,95,61	14,667	3 13
Central Provinces and Berar	2,38,56	15,508	1 9
Coorg ..	4,13	164	2 8
Delhi ..	4,67	636	0 12
Madras ..	7,53,47	42,319	1 12
North-West Frontier Province ..	27,70	2,508	2 0
Punjab ..	4,77,20	23,551	1 8
United Provinces ..	7,03,84	46,715	1 8
<b>TOTAL</b> ..	<b>37,90,82</b>	<b>258,167</b>	<b>1 8<sup>4</sup></b>

Theoretically the revenue is collected in the Punjab not from individual cultivators but from the joint-proprietors

<sup>14</sup> The land revenue per head of the population conveys an entirely misleading idea of the burden imposed by this tax. See chapter II of this book and chapter I of *India in Crisis*.

of a village. In actual practice the liability for the payment of the land revenue is both joint and several. A "full and reasonable rent" paid by tenants-at-will is regarded as "a sufficiently near approximation to the net assets."<sup>15</sup> The assessments are therefore, in practice, though not in theory, based on rents.

*The Cesses.*—These are local rates levied in every Province in addition to the land revenue. The proceeds are expended on local purposes, such as roads, schools, dispensaries, etc. The burden of the cesses does not exceed  $12\frac{1}{2}$  per cent of the land revenue. The village officers' cess, formerly levied on land-owners, was abolished in 1905-06, the Government assuming responsibility for the charges for village officers.

*Sub-proprietors.*—The *patnidar* is a sub-proprietor in Bengal. He enjoys a permanent managing lease for part of an estate in return for a fixed annual payment to the proprietor. The *patnidar* may similarly have a *dirpatnidar* under him, and a *dirpatnidar* a *sepatnidar*.

Sub-proprietors also exist in Northern India where new proprietors arose over an older group. In such cases the holder pays no rent, but only the Government revenue and cesses. Sub-proprietors are not easily distinguishable from privileged tenants.

#### 14. TENANCY LEGISLATION .

Tenancy legislation recognises two main classes of tenants, occupancy and non-occupancy. The 12 year rule

<sup>15</sup> Report of the Indian Taxation Enquiry Committee of 1924-25, p. 52.

applies in Bengal and Agra. In the Punjab the right of occupancy is not acquired by the lapse of time, the privilege being restricted to tenants whose claims are based on certain historical grounds. In the Central Provinces there are two classes of occupancy tenants with transferable rights subject to certain conditions. In the Zamindari estates in Madras the right of permanent occupancy is enjoyed by every *ryot* who was in possession of *ryoti* land when the Estates Land Act of 1908 was passed, and every *ryot* who is admitted by the landlord to the possession of land. No corresponding law exists for tenants under *ryotwari* holders.

Tenancy laws also impose restrictions on the enhancement of rent by landlords. "In the case of occupancy tenants, the rent can generally be enhanced only by agreement or by suit. In Bengal such agreements are required by law to be in writing, and the enhancement cannot be made oftener than once in 15 years, and is also subject to a maximum of 2 annas in the rupee. An enhancement by suit can be decreed by the Court on grounds of lightness of the rent as compared with lands in the neighbourhood, rise in prices of staple food crops, or increase in the productivity of the land due to improvements of the proprietor or to fluvial action. The tenant has the right of suing for a reduction of rent on the ground of permanent deterioration of the soil, or of a permanent fall in the local prices of food crops. There are similar restrictions in force in the other provinces, and in the Central Provinces the rent is fixed by the settlement officer in the case of what are known as absolute occupancy tenants for the term of the settlement and in that of occupancy tenants subject to enhancement every ten years. Even in the case of non-occupancy tenants, under most of the Tenancy Acts, the rents cannot be enhanced except under agreements, which in some provinces are required to be registered."<sup>10</sup>

<sup>10</sup> *Ibid.*, p. 46.

## 15. FORESTS

The following statement shows the revenue, expenditure and surplus of the Forest Department throughout British India in certain years:

	Revenue. Lakhs.	Expenditure. Lakhs.	Surplus. Lakhs.
1900-01 ..	1,98	1,12	86
1913-14 ..	3,33	1,75	1,58
1929-30 ..	6,13	3,63	2,50
1930-31 ..	4,73	3,52	1,21
1931-32 ..	3,96	3,01	95
1932-33 ..	3,74	2,88	86

From over 6 crores in 1929-30, revenue fell to  $3\frac{3}{4}$  crores in 1932-33, and net revenue from  $2\frac{1}{2}$  crores to 86 lakhs (equal to the net revenue of 1900-01).

Excluding Burma and Federated Shan States, total revenue in 1932-33 amounted to 282 lakhs and expenditure 219 lakhs. The principal source of revenue is sale of wood (191 lakhs). Minor forest produce yielded 36 lakhs, and grazing 30 lakhs.

The Forest Department has a recurring expenditure of 198 lakhs, of which about 118 lakhs represents "Administration" (Staff, office establishments and contingencies).

The decline in exports of forest produce in recent years is shown by the following statement:

	1928-29.		1932-33.		1934-35.	
	Quantity	Value. Lakhs.	Quantity	Value. Lakhs.	Quantity	Value. Lakhs.
Rubber, raw, Million lbs.	25.8	2,00	6.9	8	23.6	65
Lac, 1,000 cwts. ..	743	8,64	418	1,24	586	3,30
Cutch & gambier,						
1,000 cwts.	47	9	29	3	35	5
Myrabolans, 1000 cwts.	1,231	80	1,062	56	1,356	48
Cardamoms, 1,000 cwts.	7.6	21	8.4	15	9.3	15
Teak wood,						
1,000 cubic tons	52.6	1,47	17.3	40	44.7	93
Sandal, 1,000 cubic tons	1	17	0.4	6	0.7	8
Other kinds .. ..	..	6	..	3	..	4
<b>TOTAL .. ..</b>	<b>..</b>	<b>13,44</b>	<b>..</b>	<b>2,55</b>	<b>..</b>	<b>5,68</b>

It will be seen that the value of forest produce exported fell from about  $13\frac{1}{2}$  crores in 1928-29 to  $2\frac{1}{2}$  crores in 1932-33; attention may particularly be drawn to rubber. At the present time, in spite of some recovery, both the quantity and value of exports are less than in 1928-29.

The total area of forests under the control of the Forest Department is 1 million sq. miles. This is 23.7 per cent of the area of British India. Among the major Provinces the area of forests is the largest in Burma, 66.8 per cent of the total area of that Province, and the smallest in Bihar and Orissa, 3.6 per cent of total (United Provinces 4.9 per cent and the Punjab 5.5 per cent).

There is a Forest Department in every Province. The work of the Forest Department is to carry out forest settlements and surveys, demarcation of boundaries, and management of forests. It builds forest roads and bridges, protects forests against illicit grazing, illicit felling, fire, and injuries from natural causes. Its other important functions are artificial regeneration and afforestation, and exploitation of forest produce.

The following table shows forest revenue and expenditure in 1932-33 by Provinces:

		Revenue. Lakhs.	Expenditure. Lakhs.	Surplus. Lakhs.
Bengal	..	15.1	15.08	0.3
U. P.	..	46.0	26.0	19.9
Punjab	..	19.5	22.1	..
Burma	..	92.4	68.6	23.8
Bihar and Orissa		6.2	6.3	..
Assam	..	16.2	14.1	2.0
C. P. & Berar	..	42.9	32.7	10.2
N.-W. F. P.	..	7.4	6.2	1.2
Madras	..	47.4	37.9	9.5
Bombay	..	59.7	36.2	23.5
TOTAL	..	3,74	2,88	86

According to the Punjab Forest Administration Report for 1932-33,<sup>17</sup> the Department had an average annual

<sup>17</sup> *Ibid.*, p. 23.

surplus of Rs. 63,000 from 1927-28 to 1931-32, a deficit of Rs. 2,54,000 in 1931-32 and Rs. 2,58,000 in 1932-33. The deficit is partly due to the heavy cost of administration. The Department "is bound to employ a larger number of officers than are now really necessary for efficient working."<sup>18</sup> In times of prosperity there was an 'expansion in the cadre' as in the case of other Government Departments. Retrenchment is more difficult to effect.

*Utility of Forests.*—A Forest Department is not useless because it spends more than it earns, though there is little justification for maintaining more staff than is required, or for paying excessive salaries to the staff.

The utility of forests, both direct and indirect, to the country is enormous. The effect of forests on climate, humidity and rainfall is well known. Forests tend to reduce floods, check avalanches, and add to the beauty of a country.

"The economic history of the whole of the Middle Ages" says the *Handwoertrbuch der Staatswissenschaften*, "is to a great extent the history of forests, and also at present the weal or woe of country-people depends on the use made of forests."<sup>19</sup> Forests yield produce which forms the raw material of many manufacturing industries. There are furniture industries in every Province. Bamboo pulp may be used for paper-making. Protection was granted in India to paper made from bamboo pulp; the extent, however, to which bamboo pulp is actually used for this purpose is not

<sup>18</sup> Government review of the *Punjab Forests Report*, 1932-33.

<sup>19</sup> Vol. IV, p. 251.



known. A silk-like fabric is made from spruce wood in foreign countries. Other forest industries are commercial fibres, tanning materials, dyestuffs, lac, turpentine, resin, rubber and gutta percha. Various herbs may be used for the manufacture of drugs and medicines. A valuable drug, santonin, is manufactured by the Kashmir Pharmaceutical Works at Baramula (Kashmir) from a herb. The Jallo Resin Factory produces rosin and turpentine, and has several subsidiary industries (boot-polish, metal polish, disinfectants, paints and varnishes, cobbler's wax and sealing wax). The price of rosin and turpentine has fallen heavily, and, owing to Russian competition, also of santonin.

## 16. ECONOMICS AND RELIGION

Religion is a baneful factor in our economic life. Communalism derives its chief strength from religious fanaticism. Communalism is responsible for rioting, murder, arson and other acts which excite horror and disgust; it is hindering the growth of trade unionism; it prevents the different parties in the Assembly and provincial legislatures from acting together when united action is desirable in the interests of all; and it gives an objectionable colouring even to purely economic measures (*i.e.*, the registration of money-lenders, or voluntary debt-reduction). Our view of marriage and births, and customs and practices based on religion make it impossible to improve the quality of the population. If Hindus and Muslims were thoroughly irreligious (Lord save us!) they might be refused admission to Heaven, but they would learn to live together on earth

as friends, and they would live on a higher moral, social and economic plane than they do now.

One despairs of the future of a country where the acknowledged leaders of the people, who are literally worshipped by millions, preach a view of life which is inconsistent alike with sense and reason. Mahatma Gandhi regarded the Bihar Earthquake as Bihar's punishment for the sin of "untouchability." What is the religious explanation of the Quetta earthquake of May 31, 1935, which killed 36,000 persons or more out of a population of 45,000 in Quetta town alone? The earthquake razed to the ground clubs (which we may suppose to be the home of iniquity) as well as temples, churches and mosques, which are called 'the house of God.'—Is there any crime which man punishes in the same indiscriminate and heartlessly cruel manner in which 'sin' is punished by God?<sup>20</sup> Hindus and Muslims have frequently broken each other's heads on the question of 'music before mosques,' and Azan and Arti. What Hindus and Muslims have still to learn is that life is governed by Natural Laws which are absolutely

<sup>20</sup> Mahatma Gandhi commented on the Quetta earthquake in his characteristic style: "Nothing happens without His permission . . . . I must repeat what I said at the time of Bihar disaster. There is a divine purpose behind every physical calamity." Evidently men of faith know more about things of this world and the next than those lacking faith. But the question may be asked whether the average man, woman or child in Quetta who was killed outright by the earthquake, or was roasted alive, while pinned beneath the debris, in the fire which raged for several hours, was more sinful than the average man, woman or child elsewhere in the world where no earthquake occurred. The only "divine purpose" which men of ordinary intelligence can see behind natural calamities is the confirmation of the view that we live in a universe governed by impersonal Law, and not by the fiat of a Personal God. Or if there is a God, there is also an extremely wicked and powerful Devil at work in the universe.

indifferent to human weal and woe, and which make no distinction between different communities or races. What is true of laws which produce famines, floods and earthquakes, is also true of laws which explain the wealth or poverty of nations.

## APPENDIX

### THE YEAR 1934-35

The League of Nations *Survey* of world economic conditions in 1933-34 shows the beginnings of a slow revival of trade and industry. Some countries, *e.g.*, the United Kingdom, may be said to have definitely turned the corner. What is the extent of the 'recovery' in India?

The course of prices (wholesale, Calcutta) is shown by the following statement:—

	1934.		1935.	
	January.	July.	January.	March.
<b>FOOD-GRAINS—</b>				
Oil-seeds ..	61	71	79	73
Pulses ..	78	83	94	84
SUGAR ..	124	127	126	124
TEA ..	149	139	106	100
OTHER FOOD-GRAINS ..	93	99	103	92
OIL-SEEDS ..	75	99	110	94
OIL, MUSTARD ..	48	55	121	61
<b>TEXTILES—</b>				
Jute, raw ..	42	35	147	47
Jute manufactures ..	79	74	81	78
Cotton, raw ..	75	73	86	71
Cotton manufactured	114	115	119	119
Other textiles (wool and silk) ..	69	61	64	66
HIDES AND SKINS ..	74	44	60	55
METALS ..	102	101	99	97

	1934.		1935.	
	January.	July.	January.	March.
OTHER RAW AND MANU- FACTURED ARTICLES	99	95	88	82
BUILDING MATERIALS				
(TEAK WOOD) ..	124	124	114	119
ALL COMMODITIES ..	90	89	94	87

It is impossible to speak of any rise of prices in India. Prices had risen in January, 1935, but the trend is downwards again. The position in March, 1935, was generally the same as it was a year before.

#### FOREIGN TRADE

India is a debtor country. The Home charges (as we have seen) amount to about £31 millions annually; to this may be added £15 millions which represent miscellaneous trade and other obligations. Roughly, to meet these payments India requires a surplus of over 60 crores of exports annually. Before the outbreak of the crisis this was the usual trade balance in our favour; abnormally heavy net exports took place in the years 1923-24 to 1925-26. Net exports fell to  $3\frac{1}{2}$  crores in 1932-33, recovered to about 35 crores in 1933-34, and fell to 23 crores in 1934-35. As compared with the preceding year, exports of Indian merchandise increased by about 5 crores in 1934-35 (from 146 to 151 crores), but imports increased by no less than 17 crores (from 115 crores to about 132 crores). The position is unsatisfactory.

*Gold Exports:*—We are avoiding bankruptcy only through gold exports, which amounted to  $65\frac{1}{2}$  crores of

rupees in 1932-33, 57 crores in 1933-34 and 52½ crores in 1934-35. We have started exporting silver as well. The net exports of silver in 1934-35 amounted to over 2 crores of rupees. The net *imports* of silver between 1927-28 and 1933-34 were as follows:—

	Net Imports of Silver (private). In Lakh rupees.		
1927-28	..	..	.. 13,85
1928-29	..	..	.. 13,04
1929-30	..	..	.. 11,89
1930-31	..	..	.. 11,65
1931-32	..	..	.. 2,59
1932-33	..	..	.. 73
1933-34	..	..	.. 1

There is no change in the Government attitude towards gold exports. Our Finance Member “can see no sufficient reason for placing them in a different category from exports of any other commodity of which India has a surplus . . . .”! There is no difference between gold and any other commodity which India exports, presumably because we grow crops of gold every year, as of cotton, jute, or oil-seeds!

The following Associated Press message will be read with interest:—

“Simla, May 17. Information from Madras shows that Mr. Aiyengar, a Congress member, has given notice of a Bill prohibiting the export of gold. The Bill cannot be introduced

without the Governor-General's sanction, which Mr. Aiyengar is not likely to obtain.\*

"The Bill, therefore, will probably not come up at the next session. The reason for the refusal of sanction is said to be that the Government, which is the best judge in such matters, will not permit a disturbance of the market by any false hopes of the passage of a private Bill. The Government seems, in fact, to be more convinced than ever of the need of allowing gold export, which, by swelling the balance of trade, is enabling India to meet her extensive foreign obligations. Indeed, it is argued in export quarters that, owing to the serious fall in India's exports through certain countries like Germany and Italy curtailing purchases of Indian goods, the chief factor in the maintenance of a favourable balance of trade for the next four or five years will be through the export of surplus gold and silver, thereby obviating the necessity of raising large sterling loans to meet the annual London obligations.

"It is said that precious metal is stored so extensively in India that the high price of gold and silver, which is likely to last as long as the international situation remains on the existing basis, will enable India to export her precious metal abroad and realise profits, and thus also help the country's finances. The Government is thus not likely to entertain any proposal to stop the export of gold and silver."

No. The Government is not likely to entertain any such proposal. For as soon as gold exports cease, the exchange, in the present condition of our trade balance, must fall—and India's credit depends on the maintenance of the 18*d.* sterling rate. But it may be questioned whether exports of gold and silver are the best means of maintaining a solvent position.

\* The sanction was refused.

## THE OTTAWA PACT

The trade figures for 1934-35 may be analysed to discover the benefit which India derived from the Ottawa Pact in that year.

There are three chief features of our trade returns for 1934-35: (1) the United Kingdom has stopped buying more of our goods, (2) exports to Japan about doubled in 1934-35 as compared with the preceding year, and (3) exports to the principal European countries and the United States are definitely declining.

Exports to the United Kingdom were valued at 47,53 lakhs in 1934-35 and 47,21 lakhs in 1933-34. The increase is so slight as to be negligible. On the other hand imports from the United Kingdom increased from 47,59 lakhs in 1933-34 to 53,75 lakhs in 1934-35. In 1933-34 Britain's purchases from us were about equal to our purchases of British goods. In 1934-35 our trade with the United Kingdom (as also with the British Empire) gave us an adverse balance. Thanks to the Ottawa Pact, British imports are increasing, while our exports to the United Kingdom are stationary.

Of particular interest is the export of raw cotton. By Article 8 of the Trade Agreement the Government of the United Kingdom undertook to co-operate in schemes for promoting, whether by research, propaganda or improved marketing, the greater use of Indian cotton in the United Kingdom. Again, in 1933, when the Agreement with Lancashire was concluded (known as the Mody-Lees Agreement) the Indian side "strongly emphasized the urgent necessity of further efforts being made in the United Kingdom to



popularise the use of the Indian raw material." The United Kingdom did buy more Indian cotton in 1933-34 (61,037 tons) than in 1932-33 (29,434 tons). But evidently the limit of expansion has been reached. Lancashire's purchases of our cotton in 1934-35 amounted to 61,933 tons.

Exports to Japan, on the other hand, increased from 182,565 tons in 1933-34 to 359,033 tons in 1934-35. Of our total exports of cotton, the share of the United Kingdom was 12.4 per cent in 1933-34 and 10.0 per cent in 1934-35. Japan's share increased from 37.4 per cent in 1933-34 to 58.3 per cent in 1934-35. Exports of cotton to Japan were approximately six times greater than those to the United Kingdom.

The basic quota of Japanese piece-goods is 325 million yards, linked with 1 million bales of Indian cotton. The maximum limit of imports of Japanese piece-goods is 400 million yards. In 1933-34 (first quota year) Japan sent us 341 million yards of piece-goods, and in 1934-35, 374 million yards. Her purchases of raw cotton amounted to a little over 2 million bales in 1934-35; exports to the United Kingdom in 1934-35 amounted to 346,785 bales (of 400 lbs. each). Imports of piece-goods from the United Kingdom are not linked with any purchases of raw cotton, with the result that while exports of cotton to the United Kingdom in 1934-35 show a negligible increase as compared with the preceding year, imports of British piece-goods increased from 414 million yards, in 1933-34 to 552 million yards, or by 33 per cent in 1934-35.

It is evident that Lancashire is taking her promises to buy more of our cotton lightly—she is more interested in increasing her exports to India. In view of this development, it would be desirable to subject her imports into India to the same quota system which has been applied to Japan. Limitation of British imports of cotton piece-goods to a maximum of 400 million yards, with a basic quota of 325 million yards linked with 1 million bales of cotton (as in the case of Japan), will impose no hardship on the Indian consumer, and will benefit the Indian grower of cotton. If in any Cotton Year (beginning 1st January) the United Kingdom buys less than 1 million bales of Indian cotton, let her quota of piece-goods for the corresponding piece-goods year (beginning 1st April) be determined by reducing the basic quota of 325 million yards at the rate of 2 million yards for every 10,000 bales of deficit.

If the United Kingdom was not able to buy more than the present amount, or 346,785 bales of cotton in a year, imports of her piece-goods would be limited to 195 million yards.

The Punjab peasant is also interested in the export of wheat. Indian wheat enjoys preferential treatment in the United Kingdom. A Committee of the Assembly, which examined the Ottawa Pact, held that the preference was of definite value to India. Exports of wheat to the United Kingdom were valued at Rs. 11 in 1932-33, Rs. 17 in 1933-34, and 7 lakhs in 1934-35. The total exports of wheat in 1934-35 amounted to about 11,000 tons, or 0·1 per cent of the crop of 1933-34 (9,358,000 tons).

Far more serious than the inability of the United Kingdom to buy more of our goods is the decline of exports to the United States and our principal European customers :

EXPORTS OF INDIAN MERCHANDISE

	1933-34 Lakhs.	1934-35 Lakhs.	Decrease Lakhs.
Italy .. .. .	5,75	5,73	3
Belgium .. .. .	4,48	4,23	25
United States ..	14,07	12,87	1,20
Holland .. .. .	4,21	2,53	1,68
France .. .. .	7,37	5,26	2,11
Germany .. .. .	9,84	6,99	2,85

It is well known that restrictions on Indian imports have been imposed in certain countries. The full effect of these restrictions will become evident in 1935-36 and the following years, but the decline of exports has begun. The Ottawa Pact does nothing to encourage exports to foreign countries; it positively discourages them. Even if foreign countries have imposed restrictions on Indian imports not by way of retaliation but primarily for reasons of exchange control, or of national self-sufficiency, the Ottawa Pact has provided them with a very good excuse for pursuing such a policy. And as the figures given above show, India is exceedingly vulnerable; that is, the demand for the greater proportion of our exports is not inelastic.

Germany, Italy, Roumania and Turkey have already limited Indian imports, and Iran (Persia) buys nothing from us unless we make purchases from her of equal value.

The chief feature of the import statistics is the growing competition between Japan and the United Kingdom. The following statement shows imports from the principal countries:—

## IMPORTS OF MERCHANDISE

	1933-34 Lakhs.	1934-35 Lakhs.
United Kingdom .. ..	47,59	53,75
Japan .. ..	16,36	20,80
Germany .. ..	8,89	10,12
United States .. ..	7,18	8,40
Italy .. ..	2,91	3,01
France .. ..	1,50	1,53
U. S. S. R. .. ..	1,64	1,55
Belgium .. ..	2,66	1,16
Holland .. ..	1,82	1,29

American and German imports increased appreciably, but the biggest increase was in the case of two countries, United Kingdom and Japan.

In a very few cases the United Kingdom has lost the advantage that she gained over her rivals in 1933-34. For example, British imports of woollen piece-goods into India increased from 52 lakhs in 1932-33 to 57 lakhs in 1933-34, but fell to 47 lakhs in 1934-35, while in these three years Japanese imports grew from 8 lakhs to 73 lakhs.

But in most cases, thanks to the Ottawa Pact, the United Kingdom is maintaining her lead and increasing it.\*

Exports to Japan increased from 12,61 lakhs in 1933-34 to 24,14 lakhs in 1934-35. But this is not due to the Ottawa Pact. It would not be surprising if Japan bought less of our cotton and other goods in 1935-36.

### FINANCE

The financial position is excellent. The Indian budget for 1934-35 estimated a surplus of 10 lakhs. The revised estimates showed a surplus of 3,27 lakhs. The surplus was in the main due to Customs, the principal contributing items being sugar (138 lakhs), cotton fabrics (90 lakhs), and yarn and textile fabrics other than arti-

\* British imports of the following articles increased in 1934-35 as compared with 1933-34.

Belting for machinery; cement (imports from Japan and Germany fell); earthenware and porcelain (Japanese imports fell slightly); glass and glassware; hardware (excluding cutlery and electroplated ware); electric fans and parts thereof; electric wires and cables; gas-filled electric bulbs for automobiles; wireless valves; electric lamps, other sorts; accumulators; switch boards; other electrical goods and apparatus; spirit; railway locomotive engines, etc.; electrical machinery; machinery and millwork (imports from Germany and Belgium declined; mixed or yellow metal (brass) for sheathing; copper, wrought; iron bars and channel (imports from Sweden declined); bars other than cast steel.

Iron or Steel: beams, channels, etc.; bolts and nuts; fencing materials; hoops and strips; nails, rivets and washers; rail-chairs and fish-plates; screws, galvanized (imports from Belgium and Japan declined); total of not galvanized; sleepers, etc.; tubes, pipes and fittings; wire rope; and wire other than fencing wire.

Paints and colours; packing paper; provisions; rubber; pneumatic motor and cycle covers, and solid tyres for motor vehicles; cotton piece-goods; sewing or darning thread; silk yarn; goods of silk mixed with other materials; cycles; carriages and wagons for railways; motor-cars, including taxi-cabs; motor cycles; motor omnibuses.

cial silk (90 lakhs). The budget for 1935-36 estimates a revenue of 90,19 lakhs, and expenditure of 88,69 lakhs, leaving a surplus of 1,50 lakhs. The duty on imports of silver has been reduced to 2 annas and the export duty on raw skins abolished.

The main proposal of the Finance Member for 1935-36 (which was accepted) was the reduction of the surcharges on income-tax and super-tax (imposed in the supplementary budget of September, 1931) by one-third. The removal of the surcharges altogether would have cost the Government 3,34 lakhs a year; their reduction by one-third accounts for 136 lakhs out of the anticipated surplus of 150 lakhs in 1935-36. Of the remaining 14 lakhs, 8 lakhs is the cost of the removal of the export duty on raw skins, which leaves a nominal surplus of 6 lakhs.

The salary cut has been fully restored. The cost of restoration (5 per cent) is 55 lakhs for the Civil Departments (excluding the Railways but including the Posts and Telegraph Department), and 53 lakhs for the Army, or a total of 108 lakhs. There is a set off against this in the form of extra income-tax amounting to Rs. 16 lakhs.

*Punjab Finance*:—The income of the Punjab Government is derived from four main sources—Land Revenue, Irrigation, Excise and Stamps. In the year 1933-34 these four heads provided 86 per cent of the total income.

The income from land revenue increases when new canals are made and a large area of waste-land can be brought under the plough. "For the present," said Mr. D. J. Boyd, Finance Member, Punjab, "it looks as if we

have come very nearly to an end of our colonisation schemes." The Haveli project, however, is under consideration; and when the Pakpattan perennial canal is fully developed, it would bring 80,000 to 100,000 acres of waste-land under cultivation, and provide about 130,000 acres of Crown land for sale.

The average receipts from land revenue since 1927-28 have been about 258 lakhs. The revised estimate for 1934-35 was 283 lakhs and the budget estimate for 1935-36 is 272 lakhs.

The average income from irrigation since 1927-28 has been 387 lakhs; the revised estimate for 1934-35 was 414 lakhs and the budget estimate for 1935-36 is about 410 lakhs. It may be noted that about 2 crores of receipts credited to Irrigation consist in reality of land revenue on land which would not have come under cultivation but for the canals.

Excise and Stamps yielded 94 lakhs and 103 lakhs in 1933-34, respectively, but are expected to increase to 99 lakhs and 110 lakhs in 1935-36.

The main heads of expenditure are: Irrigation 334 lakhs (working expenses 187 lakhs and interest on debt 137 lakhs), Education Department 160 lakhs, Police 122 lakhs, General Administration 109 lakhs, Administration of Justice 55 lakhs and Jails 30 lakhs.

A surplus of 34 lakhs was realised in 1933-34. For 1935-36 ordinary revenue is estimated at 10,39 lakhs, which is about equal to the estimated expenditure.

In the year 1933-34 working expenses of the Mandi Hydro-Electric Scheme were 3 lakhs and revenue 5 lakhs;

in 1934-35 expenditure will be between 6 and 7 lakhs and revenue between 11 and 12 lakhs. It is estimated that in the year 1938-39, after paying interest, depreciation and all operating expenses, there will be a profit of Rs. 1,40,000.

A survey is being made to investigate the possibility of a system of tube-wells for irrigation purposes to be worked by power from the Mandi Scheme.

The Mandi Scheme has cost 626 lakhs (including 42 lakhs spent on local distribution). The accumulated interest charges are 123 lakhs, which brings the total capital expenditure charged against the scheme to 749 lakhs.



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