ECONOMICS of A MULTIPLE-PURPOSE RIVER DAM

Report of an Inquiry into The Economic Benefits of the Hirakud Dam

by

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ERRATA

Chapter I

Page 6, line 2, in place of 61.65 read: 61.15.

' Page 11, after line 14, read: beyond 1960. Consequently, the project was staged over a period

Chapter II

Page 18, in place of line 34, read: possible by the cheap power available, there will be more employment,

Chapter III

Page 38, para 2, line 3, in place of Table No. 3.18, read: Table No. 3.8. Page 38, para 2, line 8, in place of Table No. 3.13, read: Table No. 3.6.

Page 40, Table No. 3.8, in place of the 1st fig. in col. 1, and 1st fig. in col.-heading, read: less than 1.

Page 41, line 2, in place of 1605, read: 1424.

Page 41, line 5, in place of 4903, read: 5078.

Chapter IV

In Table Nos. 4.10(A), 4.10(B), 4.11(A), and 4.11(B), read: Less than 1 in place of 1 in the 2nd col. heading.

In Table No. 4.11(A), and 4.11(B), in the 1st col. heading, read: Owned in place of Cultivated.

In Table No. 4.13, read the total of the 3rd col. as 260, in place of 280.

In Table No. 4.15, item 8, read: 119 in place of 199, and 1 in place of .1.

Chapter V

Read: Economic Conditions In The Delta Zone, in place of the folio title-Economics In The Delta Zone.

Chapter VII

The areas in Table Nos. 7.5(A), 7.5(B), and 7.6(A) are in acres.

Page 182, 1st line after the tabular matter, read: Rs. 349 in place of Rs. 340.

Page 205, in the last footnote, read: p. 496 in place of 946.

Appendix II

Page 259, Table No. S.10, Col. 2, item 5, in place of 18, read: 11.

Page 286, line 7, read: 29 per cent. in place of 20 per cent.

Page 286, last para, 1st line, in place of Rs. 412, read: Rs. 124.

Appendix III

Page 328, Table No. P.12, Col. 7, last item, read: 1.

In the headings of Table Nos. S.4, S.5, S.6, C.4, C.5, C.6, and P.4 on page 294, in place of—of their cultivated holdings—read: of their holdings.

FOREWORD

This publication contains the report of a survey undertaken by the Institute at the instance of the Government of Orissa. The survey was directed towards assessing, as comprehensively as possible, benefits that are likely to accrue to the State from the construction of the dam and related works on the Mahanadi at Hirakud. The report gives, in the first instance, a description of economic conditions in the two regions, the Sambalpur Zone and the Delta Zone, which are expected to receive benefits from the Hirakud Dam and attempts estimation of total income of the area affected by Hirakud irrigation. There follow projections of future crop, patterns and estimates of agricultural production after irrigation; these are compared with corresponding data for the period before irriga-Attention is next paid to possible extent of flood control and tion. benefits accruing from effective flood control and to generation of hydroelectric power and economic developments that may follow upon its availability. Finally, certain calculations of overall benefits and costs of the. project are made on the basis of concepts and practices evolved in the U.S. and an estimate is presented of prospects of financial returns.

The first part of the report is of interest because of the presentation of details of the economic situation relating to large and important regions of the country and the discussion of problems involved in the planning and conduct of an economic survey in regions with somewhat limited administrative and revenue data. The second part holds interest on account of the attempts at projections and estimations in many directions that had to be made. I desire to discuss in this Foreword the question of the proper direction and use of such work and this may be best attemptcd by comparing it with an earlier investigation of the Institute in this field.

The earlier investigation on the subject of benefits of irrigation undertaken by the Institute, tackled the problem of assessing benefits that were seen to accrue after a system of canals had been completed and been in operation for some years. That investigation arose out of a resolution passed by the Central Board of Irrigation and was initiated by the Government of Bombay. The report of the investigation was submitted to Government in 1942 and was published by the Institute in 1947. It came under general notice when irrigation projects began to be discussed actively and undertaken on a large scale after Independence. In a number of essential respects, the problems faced by the present investigation were different from those faced in the earlier one. In both cases, the objective was to assess the difference between two situations. In the earlier investigation an existing situation which incorporated within itself effects of the operation, for over 20 years, of a system of irrigation was compared with a hypothetical situation which might have existed in the tract, other things being equal, in the absence of the system of irrigation. In the present investigation, the appropriate comparison is between the situation that might come to exist some years after the completion of irrigation and the situation that might be conceived to exist in the region, in the absence of the irrigation project. In the earlier investigation the objective was to assess benefits which might be taken to be accruing currently because of some effort in the past. In the present investigation the objective is to assess benefits which might accrue in the future because of construction of the irrigation system currently undertaken.

It would appear that the former project was not only easier to carry out but that the comparisons involved in it had a firmer base. In the first instance, at least one of the two situations compared, belonged to the concrete present. In constructing the hypothetical picture also, there was little element of pure projection because a concrete existing situation was, for the most part, assumed as the basis of the hypothetical picture. The underlying assumption made, in this instance, was that the existing situation in some nearby tracts which did not enjoy irrigation facilities provided adequate data for portraying the hypothetical situation of the tract at present under irrigation, if it also had not benefited from the system of irrigation. The earlier investigation, therefore, posed problems chiefly of choice of regions or locations for comparison and of designing and conduct of surveys, analysis of their results and of total estimations on the basis of those results. These problems were undoubtedly difficult and were posed in a field in which little work had been previously attempted. Even so these were essentially matters of application or adjustment of accepted methodology, of evolving suitable hypotheses and of methods of analysis in the particular situations. In the project, of which this publication forms the report, the comparison, in the first instance, is less sure; the assumption that the existing situation can be projected unchanged into the future is itself open to question. At the same time, there is no basis for judging the direction in which and the extent to which changes might occur in the existing situation even in the absence of irrigation. The projection of future conditions with irrigation is beset with even greater difficulties. An attempt was made in this project to find out answers to problems of projection by resort to a sort of analogy to the method adopted in the earlier investigation. This was of finding comparable areas in which likely future changes in the irrigated areas could be studied as actualities in the present. However, the problem of finding areas for comparison in this sense was bound to prove difficult. Because of the configuration of land surface and the dependence, in the main, on gravity flow for supply of water from canals it is possible to find, not too distant from most irrigated areas, locations not too dissimilar in other aspects. The projection regarding a future irrigated stage can, however, be based on actual conditions only in an area with an existing plentiful supply of water available all the year round such as can only be obtained from fairly large works. While

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it is possible in most areas to find some locations where tank or well irrigation is available, such areas are not only limited in extent but also seldom enjoy ample twelve-month irrigation facilities. The result is that development in them cannot yield sufficiently reliable evidence regarding possible effects of massive irrigation and such vital matters as the postirrigation cropping patterns and even measure of costs and yields of crops in relation to such areas have to be accepted with great caution in framing the picture of the irrigated future. If present conditions do not supply sufficient data for projections even of agricultural conditions they could obviously give little guidance in relation to development of trade, transport, industry, etc. As a result, a very large number of assumptions in a variety of contexts have to be made before building up an integrated picture of the future economy of the irrigated tract for making calculations of future benefits.

Utility of effort based on such data and such assumptions must be judged in relation to the use to which the results may be put. In this context also, a comparison with the use of results of the earlier investigation may have significance. An investigation of the results of past irrigation projects serves the purpose, mainly, of indicating the total actual benefits from the work of irrigation and the varying manner in which they are currently derived and throwing light on such matters as methods and adequacy of use, of potentialities remaining to be exploited and of possible variations in systems of management of production, distribution, taxation, etc. Further, an adequate number of surveys relating to assessment of performance of older projects may give valuable indications as to situations in which irrigation works have a small or large beneficent effect on the economy, the problems they create and the difficulties they solve. On the basis of results of such surveys, one may even go on to prepare broad indicators or yardsticks relating to possible total effects of given types of projected works in the future.

In the undertaking and construction of a new work of irrigation, two stages may be assumed. Firstly, the stage at which on the basis of a set of broad criteria, the fundamental decision regarding undertaking the project or not undertaking it is arrived at. The decision to undertake a project in an area or a region is determined to a large extent on broad considerations of policy of investment, regional development, etc. The exploitation of irrigation opportunities in different regions may be justified on widely different grounds and it is unlikely that a very detailed projection, such as attempted in this publication, can have relevance to the stage of making the initial decision regarding undertaking the project. It is, in fact, doubtful how far such detailed projections could be attempted without the scheme for the project having been worked out in full technical detail to a point to which this is never carried till after it has been decided to undertake the project. Therefore, elaborate economic investigations are likely to be undertaken only after considerable progress has been made in relation to the project at the technical level.

The second of the two stages referred to above concerns the programme of activities to be initiated and undertaken either during construction of the project or soon after completion of its construction, for ensuring an early, sound and full use of the possibilities of economic development opened by the construction of the irrigation system. A projection of the economic picture of the future in detail can have great value in this context. Such projection could bring to light forcefully the major problems, technical and socio-economic, that might arise in attempting economic development of the area in the future and could form the basis of a concrete programme of multi-sided action. However, such a view of the use of the projection brings into prominence a very important factor of which the authorities of the Institute were aware even before the undertaking of this survey and importance of which has been greatly emphasized by experience obtained during its conduct. This is that the quality of such economic projections is dependent to an uncomfortably high degree on the adequacy and quality of varied technical data supplied by others to the economist, about the validity and reliability of which he has little knowledge or competence to judge. In making the projections, assumptions have to be made relating to, for example, the extent of water resources available, the area they will command, the uses to which they could be put, the crop patterns which are feasible, the varieties that could be exploited or developed, the organization of land holdings, and the tenancy and other structures, the credit, trading and processing systems that might be established, the pace and direction of the development of socio-economic overheads, etc. All these involve important decisions of government policy, activities and orientations of institutions and systems, and full knowledge of actual or projected work in fields of engineering, agronomy, public health, etc. Moreover, when those who supply information relating to other fields are themselves mot involved in the business of making the projections or using the results of projections, the extent and quality of the information supplied are bound to suffer. An important instance of the helplessness of the economist in such contexts is afforded by the reflections contained (pages 164 to 166) in this publication on flood control. The projection and the calculations are made on the basis that flood control will be complete. It is clear from their remarks that the authors, on the basis of evidence of other experts, felt doubtful about the validity of this assumption but could, at the same time, do nothing about modifying it. The economist, working by himself, feels handicapped not only in relation to data obtained from other types of experts but is also unable to proceed surely in the socio-economic field because of lack of sufficient guidance on matters of policy of government and its programme of action. He may, indeed, raise issues and make suggestions about advance action, informally and confidentially, during the course of his work. However, unless some government agency is directly

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involved in the work, it is highly unlikely that such communications will receive much attention.

What I want, in effect, to emphasize is that work such as that undertaken by the Institute in relation to this project is neither of great academic importance nor of much practical use. As a result, especially of the experience of this survey, I am convinced that the only way of dealing with problems of future operation and estimation is to set up teams of experts to evolve concrete programmes of development. As soon as any large work of irrigation goes under construction, joint teams of engineers, agronomists, economists and other experts should be put into the field to prepare expeditiously, integrated and properly phased programmes of all-sided development of the area under command to be achieved within the least possible time. This will enable experts in each department to locate problems they have still to tackle before development can be fully achieved, for administrators to become aware of institutional and other arrangements they have to provide and for ministers and politicians to be aware of provisions for funds and legislative and regulatory enactments which have to be looked into before development begins or is completed. In such a concrete programme, the economist will have a valuable role to play, because he will be subjecting all alternatives in the programme to his processes of analysis and measurement and would be suggesting optimum arrangements and combinations from his point of view. The work will require the exercise of his technique at the highest level but it will be carried out with some assurance that the work would bear concrete fruit.

Gokhale Institute of Politics & Economics, Poona 4. September 23, 1960.

D. R. GADGIL

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Appendix I

LETTERS EXCHANGED AND OTHER DOCUMENTS

I. Letter (No. W/5000/CE dated 15th August, 1952) from Mr. Kanwar Sain, Member (Designs), Government of India, Central Water and Power Commissions, New Delhi, to Prof. D. R. Gadgil, Director, Gokhale Institute of Politics and Economics, Poona 4.

Dear Mr. Gadgil,

I have read your publication No. 17 "Economic Effects of Irrigation" with great interest. The findings of your surveys may have a very far reaching effect on the future of river valley projects. You must have seen the publication of the Inter-agency Federal River Basin Committee on the methods of "Appraisal of Cost and Benefits of River Valley Projects".

2. I have been thinking that it will be a useful thing if the benefits and costs of the Hirakud Dam Project could be prepared on the basis on which economic effects of irrigation both direct and indirect have been surveyed by you for the Godavari and Pravara canals. If your Institute would be willing to undertake this study could you give me an estimate of time and cost to enable me to put up the proposal before the Hirakud Control Board at its next meeting on September 17, 1952. The area which will be covered by the surveys is about 600,000 acres in Sambalpur District and about 800,000 acres in the Cuttack and Puri Districts of Orissa. I shall be glad to have a reply from you by the end of this month to enable me to include this item in the agenda of the Control Board.

> Your sincerely, Sd/- Kanwar Sain

II. Professor Gadgil's reply dated 23rd August 1952.

Dear Mr. Sain,

I have to acknowledge with thanks your letter dated 15th August, 1952. I was very glad to hear of the interest of the Control Board in the question of assessing net economic benefits of river-valley projects.

The problem of the appraisal of costs and benefits for a project in contemplation or under construction is materially different from the assessment of benefits in case of a project completed many years ago. In the case of a project

still under construction the investigational methods adopted by us for assessing the benefits of the Godavari and Pravara canals could not be used. In the latter case, conditions after irrigation are known, and for assessing the difference made by irrigation some assumptions have to be made only regarding conditions. before irrigation. The position is reversed in case of a project still under construction. Here the problem is not one of measuring an actuality but one of forecasting what conditions in the future would be like, and of estimating the benefits on the basis of the forecast. Forecasting future conditions involves the attempt to build up as full a picture as possible of conditions of economic activity in the tract after irrigation. The framing of such a picture is not easy and cannot be done by an economist working by himself. For example, future developments will depend to a material extent on land policies. The organization of land use, the determination of size of holdings, the types of tenure allowed, etc. will vitally affect land utilization. Also, detailed projection of the pattern of land use by crop combination and rotation and the periods of time and the outlay required to bring about given developments would be other essential pieces of data. Moreover, for estimating the nature and costs of the large number of subsidiary public works on which planned development of a tract will depend, expert engineering advice would be necessary. The work of projection of conditions in the future could thus be done only co-operatively: the minimum different types of authoritative advice, other than that of an economist, required for the purpose being those regarding (1) land policy decisions, (ii) land utilization with special reference to cropping system, and (iii) public works. Such a body of experts working together will be able to evolve procedures for forecasting future conditions and on application of these to particular regions might be able to produce results which have some validity and significance. The actual field investigations today would be confined to assessing the present situation and the work of projecting the future would involve little field investigation. I may refer in this connection, to the series of reports produced by the Columbia Basin Joint Investigations in the U.S.A. Though nothing equally elaborate is possible or necessary in India, the benefits and costs would have to be assessed in a similar manner through co-operative work of experts in different fields.

I feel that the Central Water and Power Commission should examine this approach not only for the Hirakud Project but also for developing a general methodology regarding appraisal of costs and benefits of all large-scale projects undertaken or to be undertaken in India. In my opinion an economist working by himself could not do the whole work. However, in case the Commission or the Control Board are interested in working out my suggestion in a general way or as for any particular project, I shall be glad personally and through the resources of the Institute to co-operate in the effort.

> Your sincerely, Sd/- D. R. Gadgil

III. Mr. Sain's letter in reply dated 25th August, 1952.

Dear Mr. Gadgil,

Thank you for your letter dated August 23, 1952.

2. I was fully aware of the difference between assessing a project which has been completed and a project which is yet under construction. I, however, thought that the experience gained in the former would be of value in assessing the benefits from the latter. After all we can forecast the future only in the light of the experience gained in the past. If this cannot be done then the experience of the past serves only a very partial advantage to the Society.

3. I also agree that the forecasting of the future is not so easy nor may it be entirely the work of an economist. All along I have been thinking that whosoever works on the problem would have the benefit of experience of the engineers working on the project as well as of the revenue and land authorities of the Government of Orissa. What I was anxious to obtain is the experience of an economist who has worked on a completed project such as Godavari and Pravara Canals.

4. I am keen that a proper assessment of some of the irrigation schemes should be made. I shall be grateful if you personally and through the resources of the Institute could co-operate in the efforts. I shall be glad to know further the way and the terms in which your Institute would be prepared to co-operate in this effort.

5.

Yours sincerely, Sd/- Kanwar Sain

IV. Professor Gadgil's letter dated 2nd October, 1952 to Mr. Sain.

Dear Mr. Sain,

I enclose herewith a note* prepared by the Institute regarding the survey for assessing benefits of the Hirakud Project. The note has been made fairly detailed. In case, however, you desire any explanations or elaborations of any points I shall be glad to furnish them.

> Yours sincerely, Sd/- D. R. Gadgil

* This note is printed in Chapter II

V. Resolution (No. 5 F) of 2nd January, 1954, of the Government of Orissa in the Finance Department.

The question of having a comprehensive economic survey of Orissa was under the consideration of the State Government for some time past. In the absence of such a survey Government are handicapped in framing the right economic and fiscal policies as the basic data required for the purpose can only be had through such a comprehensive survey. The proposal could not be proceeded with so far because of the lack of trained and experienced personnel for undertaking the survey.

2. At the instance of the Government of India the Gokhale Institute of Politics and Economics, Poona, agreed to undertake an enquiry into the economic benefits resulting from the construction of the Hirakud Dam and prepared a scheme for the purpose. A copy of the scheme is given in the Appendix to this Resolution. It was originally intended that the economic enquiry would form a part of the Hirakud Dam Project and its cost would be debited to the project. Subsequently, however, it was suggested that the cost of this enquiry should not be debited to the project, but should be borne by the Government of Orissa. After careful consideration of the matter, the State Government have decided to undertake the financial responsibility for the proposed enquiry by the Gokhale Institute of Politics and Economics, Poona, as this enquiry could form a part of the comprehensive Economic Survey of the State under their contemplations and the presence of the staff of the Institute in the State in connection with Hirakud Dam enquiry could be utilized for training local personnel in carrying out the proposed economic survey in the other parts of the State.

The Finance Minister, accompanied by Dr. S. Misra, the Head of the 3. Department of Economics, Ravenshaw College, Cuttack, went to Poona in November 1953 and had detailed discussions with Professor D. R. Gadgil, Director. Gokhale Institute of Politics and Economics and other members of the staff of the Institute in connection with the proposed economic survey and enquiry. Though it was the intention of Government that the Institute would be entrusted with the work of planning and carrying out the economic survey of the entire State, for various reasons, the Institute did not find itself in a position to extend its survey work beyond the area affected by the Hirakud Dam. However, the Director of the Institute has kindly agreed that the Institute would give its expert advice regarding the design and plan of the enquiry. methods of its conduct, recruitment and training of staff, etc. for the other areas of the State as well, though the actual conduct of the survey of these areas and the preparation of the report on the findings of the enquiry would not be directly undertaken by the Institute. It has, therefore, been decided that the proposed economic survey and enquiry would be divided into two parts. A and B for each of which a separate organization would be set up though both the organizations would work with full co-operation and consultation with one another.

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Part A of the survey will consist of the enquiry into the economic benefits of the Hirakud Dam. This work would be undertaken by the Gokhale Institute and will be carried out by that body. Shri N. V. Sovani, Assistant Director of the Gokhale Institute of Politics and Economics, will be placed in fulf charge of this enquiry and will visit Orissa as and when necessary. A lump grant will be made to the Institute for meeting the cost of the proposed enquiry and the Institute would set up a local field organization with its headquarters in Hirakud area. The Government of Orissa have agreed to lend the Institute the services of such local administrative and field staff as may be necessary for the conduct of the enquiry. The terms of reference of the proposed enquiry will be communicated to the Institute separately.

Part B of the enquiry will be concerned with the economic survey of the whole State and will be placed under the charge of Dr. S. Misra, Head of the Department of Economics, Ravenshaw College, Cuttack. This will repeat most of the enquiries designed by the Institute for the survey of the Hirakud area in the rest of the State and will also supplement this with specific enquiries directed towards getting additional data necessary and useful for the main objectives of the economic survey. The organization of the Gokhale Institute in the Hirakud area will also carry out these supplementary enquiries for the State survey within the project area. The terms of reference for Part B of the survey will also be decided separately. A separate lump sum would be placed at the disposal of Dr. Misra for meeting the expenses of the cost of the survey in other areas of the State.

Appendix II

ADDITIONAL DATA ON AGRICULTURE IN SAMBALPUR, CUTTACK AND PURI.

(A) FARM BUSINESS.

SAMBALPUR ZONE

Size of Farms: Table No. S.1 gives a distribution of the farms according to the size of their cultivated holdings. The average size of the cultivated holding was 5.2 acres; nearly 58 per cent of the cultivators, however, had holdings of less than 5 acres in size. The distribution of cultivators in different size groups was fairly uniform; only the very smallest were considerably less in number in the Sambalpur zone than in the Delta. The concentration of cultivated land holdings was, however, pronounced: cultivators with less than 5 acres of cultivated land, accounting for 38 per cent of the total farmers, cultivated only 27 per cent of the total cultivated land. On the other hand, the 11.7 per cent biggest cultivators with more than 10 acres of cultivated land each, cultivated in all over one-third (34.2 per cent) of the total cultivated land.

The average land revenue payable per acre came to Re. 0.86 and there was no noticeable difference in this respect between the different groups of cultivators.

Family Members: Table No. S.2 gives the composition of the sample farm families classified by the size of their cultivating holdings and the distribution of their members by sex, age, occupation, etc. The average size of the cultivator's family was about five. The bigger cultivators had larger families than smaller cultivators. It might be due to the prevalence of joint family system in the larger size classes.

The proportion of earners to total members in each size class increased from 44 per cent in the smallest size class to 62 per cent in the fifth size class and then declined in the higher classes following. It is precisely these size classes that reported employment of annual farm servants. As the size increased a larger number of family members may be employed on the farm, but after a stage, farm labourers were employed to do the increasing work, children and women keeping mostly out of it.

Females were mostly part-time workers on home farms, assisting in operations like weeding and harvesting. As the size of holdings increased, proportion of female earners to total adult females declined. Very few of them reported any subsidiary occupation. Land Utilization: Table No. S.3 presents information regarding the reasons for keeping the land fallow on sample farms. All land occupied for cultivation was not put under crops during the year 1955-6. About 9 per cent of the total "cultivated land" was fallow. More than 50 per cent of this land remained fallow during the year due to "want of seed" with the farmer; nearly 12 per cent was reported unculturable; for the remainder no reasons were given for its being fallow.

The gross cropped area during the year amounted to 739.90 acres. Table No. S.4 gives the distribution of this area under different crops. The complete dependence of this region on a single crop, paddy, is obvious from the Table. Nearly 92 per cent of the gross cropped area or about 80 per cent of the net cultivated area was under paddy. Pulses were grown on 3.74 per cent of the gross cropped area, groundnut on 1.65 per cent and sugarcane on 0.85 per cent only. The area cropped more than once was less than one per cent of the gross cropped area, and that meant that a very small proportion of the land was cultivated more than once during a year. Pulses and grams were grown both as *kharif* and *rabi* crops and the land that grew these as also groundnut, etc. was not put under rice. These lands were mostly At or upper *Mal* lands, unsuitable for paddy cultivation.

A little over seven per cent of the gross cropped area was reported to be irrigated. Irrigation was purely seasonal and protective, confined to the *kharif* season when the tanks and *bandhs* were quite full due to rains. They were too inadequate to serve any irrigated crop during the *rabi* season. The bigger cultivators accounted for more than half of the reported irrigated area.

One of the most important factors that went to determine the quality of land in this region was its situation. The undulating surface of the country-side was responsible for this. The lands situated at the highest level were called At lands; these were inferior lands, sometimes rocky and mostly liable to erosion. The fields here were not levelled or ridged and in most cases had a very thin topsoil. Lands slightly lower down the slope were called Mal lands, the lowest lands being Bahal, the best lands of the region. This land got plenty of water supply and had a thicker layer of better soil. Berna lands were situated where two slopes met and thus got water from both directions. Bercha was a specially prepared land for growing cash crops like sugarcane or garden crops. The 60 odd types of land classified in the Sambalpur Settlement Report can be reduced to these five main categories.

According to our survey the total cultivated area was divided among these five land classes in the following proportions: (See table on next page).

The figures show wide divergence except for *Berna* and *Bercha* lands. The proportions of At and Mal lands at the time of the Settlement during the twenties of this century were put at 37 and 31 per cent respectively, in the whole District of Sambalpur and the whole Sonepur State. Our Survey for the commanded region puts At at about 12 and Mal at about 42 per cent. *Bahal* land, on the other hand was about 28 per cent according to our survey, whereas it was only 15 per cent at the time of the Settlement.

ettlement* Sonepur State	- Total of Sambalpur aud Sonepur
Sonepur State	Total of Sambalpur aud Sonepur
32.00	37.00
20.00	31.00
2.00	2.00
21.00	15-00
25.00	15.00
00.00	00.00
100.00	100.00
-	32.00 20.00 2.00 21.00 25.00 00.00 100.00

* Settlement Reports of Sambalpur district and Sonepur State quoted in the Report on the Direct Benefits from Irrigation of the Hirakud Dam Project (Sambalpur Zone), Superintendent, Orissa Government Press, Cuttack, 1947.

These differences may be real or spurious. Assuming the classification made at the time of the land settlement to be correct there are two reasons why they may be different today. Firstly, the settlement figures quoted above pertain to the whole district of Sambalpur and the entire Sonepur State, whereas the commanded area of the Hirakud canal system covers only parts of both. The bulk of this commanded area was in the Bargarh plains, leaving the high land and mountainous area of Sambalpur out of account. The proportion of the higher At land was thus likely to be considerably less in these plains than in the upland region. The presumption is reinforced by the fact that in Sonepur State through which two big rivers-the Mahanadi and the Tel-flow and which. therefore, is at least partly, situated in their valleys, the proportion of the higher land At was less than in Sambalpur. Secondly, lands classified as At Mal or Berna do not necessarily remain the same all throughout. With proper ridging and levelling At lands can and do become Mal and Mal lands are converted into Berna or Behal by lowering the level of the land by digging out the fields. The Settlement classification was made over three decades ago. Lot of things including a world war had taken place since then. It is only natural that the area of Bahal, Berna or Mal lands should have increased at the cost of the At lands. Indeed At land was generally considered unsuitable for paddy cultivation; proper ridging and levelling for this purpose automatically transferred this land to the Mal group. At the time of the Settlement only 76 per cent of the net cultivated area was reported to be under paddy. Today, according to data obtained through our survey, the area under paddy was 85 per cent of the total.

A less important factor in this connection may be mentioned here. Bahal lands being the best, usually did not go out of cultivation, unless one decided to dig a pond or build a house on the Bahal field. Such instances were, however, not many. Inferior At land may on the other hand, be put to a variety of non-agricultural uses.

The above factors go to indicate the forces that might have affected the land classification in the region since the last Settlement operation. We have no concrete measure of the influence of these forces. The latest official figures are of the Settlement in the 'twenties; even a detailed examination of the *Patwari* records could not reveal any changes, since the *Patwari* was not supposed to record the changes in the type of land at any time between two settlement operations. In any event our survey figures may be taken as indicating the broad classification of land as it exists today.

Assets: For purposes of farm business analysis only three items of assets have been taken into account, owned land, livestock and farm implements. Farm building should also have been taken into account, but it was not possible during the investigations to obtain information about residential and farm buildings separately, the store houses or godowns being in most places parts of the residential houses, and in some cases there being no separate godowns or store rooms. The other assets of the farmer, like houses (including homestead land), Bank deposits, loans advanced, etc. are separately noted in the Table No. S.5.

Over 92 per cent of the total assets of sample farms were accounted for by land owned by the farmer. Livestock came next with 6.60 per cent, the smallest being farm implements (1.23 per cent).

The value of owned land per acre was reported on an average to be about Rs. 680. This was an average for the different types of land. There was, however, considerable difference between the values of various types of land. The following table shows the estimated values of the different types of land in this region at the time of our survey:—

AtRs. 500MalRs. 594BernaRs. 694BerchaRs. 811BahalRs. 852AverageRs. 680

These were based on the estimates of farmers about the value of their own lands. In this the value of At and Mal lands appeared to have been somewhat overestimated.

Most of the farmers owned most of the land they cultivated. The value of this asset per family went on increasing as the size of the cultivated holding of the families increased.

The same can be said of livestock. The average value of livestock per farm was reported to be Rs. 246/-. A comparison of the value of this asset for different groups of farmers, however, showed only an erratic trend since estimated value of livestock varied from farm to farm. The average value of implements per family came to about Rs. 48/- and that per acre of net cultivated area to about Rs. 9. Excepting for the group of the very smallest cultivators there was no noticeable difference in the average per acre value of implements among the different groups. The slight differences were due mainly to the possession of bullock-carts by some cultivators.

Livestock : Table No. S. 6 gives the number and value of livestock of sample farms classified by size. As we noted above, 144 of the total number of sample farms possessed bullocks (draught animals). The net cultivated area per pair of bullocks increases as we move from the smaller to the larger cultivated holdings, illustrating the nature of these overheads in farm business. The same, however, cannot be said of cows and other livestock. The smaller cultivators (those with less than five acres per family) reported a smaller number of cows per farm than the bigger ones. This was mostly due to the difficulty of feeding them, dairy being a business of no importance in the region. Therefore, it was only those farmers who had more land and greater resources who could afford to keep cows. There were 2.4 bullocks reported per family. But families with less than 3 acres of cultivated land had less than a pair on an average. Indeed nine families in the smaller groups had no bullocks. Seven had only one and the rest a pair or more. These proportions were different for the upper groups where most farms had at least a pair, only 3 reporting one and one reporting no bullock. The other kinds of livestock were of little significance. Most of the bullocks were purchased. Indeed the home-bred bullocks formed less than 20 per cent of the total number of bullocks. The stock in the region was inferior.

Table No. S.7 presents information about the sale and purchase of livestock on sample farms. There was very little of sale or purchase of livestock reported. Only one bullock was reported to have been sold during the year whereas 13 were reported as purchased. With regard to cows and others no sales or purchases were reported. The value of sales amounted to only about 12 per cent of the value of purchases. This big gap can be explained by the fact that livestock dealers were mostly people who did not belong to the region under our survey and were naturally not likely to feature in the sample. If this is so, it means that the supply centres were located outside the commanded region. Any increase in the demand for bullock labour as a result of the extension of irrigation and consequent intensive farming, may be reflected, immediately at least, in increased purchase of bullocks and the impact may mostly be on places and people outside the region.

Eleven bullocks (or about three per cent of the total number of bullocks) were reported to have died during the year. The purchases during the year, therefore, made up for this and sale. On the other hand, deaths, etc. among milch and other cattle were made up by births; no purchases were made.

Income from Livestock : Table No. S. 8 presents information about the produce and sale of livestock products during 1955-6 on sample of farms classified by size. As we saw above, draught animals (bullocks) outnumber-

APPENDIX II

ed cows and calves in the region. Excluding calves, on an average there was only one cow per family (there were no buffaloes). But there was hardly any milk yield reported. Only one family out of 154 surveyed had reported 14 scers of milk yield during the year. With regard to the others, it appeared milk yield had gone unreported. Though to the extent that these yields have been under-reported the total income and receipts would be understated, it is quite clear that the milk yield in the region was insignificant. Farmyard manure was the only livestock product reported.

Farm Implements : Table No. S. 9 presents information about farm implements on sample farms classified by size. All farm implements were either purchased or made to order. In this region no improved farm implements, like iron ploughs, pumps, etc. were used. Even the irrigation equipment was rather simple. The wooden ploughs needed to be changed every two-three years. We found almost all groups of farmers reporting some purchase. The total value of purchases came to about 9 per cent of the total value of existing implements. This may be taken to be the average rate of depreciation of farm implements.

Investment-Disinvestment: Table No. S. 10 presents information about the investment and disinvestment during 1955-6 on sample farms in Sambalpur zone. Considering investments in physical assets of the farm and their improvement and also disinvestments we found that there was an overall net investment in farm business in the region. Except a stray sale of a bullock there was no other disinvestment of physical assets reported.

The per family investment in physical assets of the farm during the year amounted to Rs. 20.7. This was a little over five per cent of the total value of assets per farm. About 30 per cent of this investment went into purchase of land, 29 per cent into purchase of livestock, some 20 per cent into purchase of farm implements and nearly 16 per cent was spent on making permanent improvements to land.

The overall picture was one of insignificant investment expenditure. Taking each asset separately we find that the total investment expenditure on land (purchase and land improvement considered together) was only a fraction of one per cent of the total value of land owned. Similarly with regard to livestock, the investment expenditure amounted only to three per cent of the total value of this asset. In case of implements it was about nine per cent.

Most of these investment expenditures were made by farmers with holdings between three and ten acres, a little over half of the farmers surveyed. Farmers with less than one acre and those with more than 10 acres reported only small expenditures on purchase of implements and improvements to land.

Besides these, there were other types of investment expenses incurred by farmers. Some of these like expenditure on construction of residential houses or purchase of gold bullion or ornaments might be excluded from farm busines account. If, however, financial investment and disinvestment expenditures

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like repayment or borrowing are taken into account this net investment situation will practically vanish, because, though debts to the tune of Rs. 1,904 were repaid during the year, fresh borrowings amounted to Rs. 5,097 resulting in a net borrowing of Rs. 3,193. This means that on the whole the farmers showed a net disinvestment to a very slight extent. If the other investments not directly connected with farm business are also taken into account the position will again become one of net investment. But either way the figure was too small and insignificant. There was hardly any investment or disinvestment activity, excepting normal routine purchases of bullocks and implements which were in the nature of replacement expenditure.

TABLE NO. S.1

Sambalpur Zone: Distribution of sample farms according to the area (in acres) cultivated, owned, etc., (during 1955-6)

	•		Farms				Cultivated	area			Total ov	vned area	_
Groups	Area	No.	% of the	e Total		Owned		Leased in		Average size of	Area	Out of	Average Land
		•	101al	Area	% of the Total	Area	% of net culti- vated	Area	% of net culti- vated	cultiva- ted holding		leased out	Revenue payable per acre (Rs.)
1	Less than 1.00	12	7 • 79	6.90	0.86	5.35	77 • 54	1.55	22 • 46	0.58	20 • 21	. 14 •86 `	0.98
2	1 to 1 •99	27	17 • 53	40.69	5 · 06	35 • 14	86 • 36	5.55	13 .64	1 • 51	37 •85	2.71	0.73
- 3	2 to 2.99	18	11 .69	45 -63	5.67	43 • 43	95 ·18	2 • 20	4.82	2 • 54	44 ·90	1 •47	1 .02
4	3 to 3 .99	22	14 • 29	75 • 59	9 • 40	7 3 · 44	97 ·16	2.15	2.84	3 • 44	73 ·44		0.84
5.	4 to 4 •99	11	7 • 14	49 ·33	6 • 13	46 • 58	94 • 43	2.75	5.57	4 • 48	47 •83	1.25	0.88
6	5 to 6 •99	28	18 18	161 •64	20 • 10	144 •61	89 • 46	17 •03	10 • 54	5.77	· 144 ·61		1-03
7	7 to 9 •99	18	11 •69	148 •62	18 • 48	142.87	96 • 13	5.75	3 .87	8 • 26	142 •87	8	0.86
8	10.00 and above	18	11 -69	275 •72	34 • 30	262 •74	95 • 29	12 98	4 • 71	15 • 32	266 • 43	3.69	0 • 58
Total		154	100%	804 • 12	100 %	754 • 16	93 •79	49 • 96	6 - 21	5.22	778 ·14	23 י98	0.80
											•		

APPENDIX II

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TABLE NO. S.2

Sambalpur Zone: Distribution of members of sample farm families by sex, age, main and subsidiary occupation, classified by the size of the cultivated holdings of the families

Groups®	Family members		Male members		Female members		Male earners		Female earners		- Total earners			
	Male	Female	Total	Adult	Non-adult	Adult	Non-adult	Adult	Non-adult	Adult	Non-adult	Male	Female	Total
1	23 *	28	51	15	8	16 .	12	15		7		15	7	22
2	49	51	100	32	17	34	17	29	1	27		30	27	57
3.	37	36	73	26	11	22	14	24	1	16	1	25	17	42
4	46	54	100	34	12	30	24	31	1	25	1	32	26	58
5	32	29	61	17	15	18	11	16	2	10		18	- 10	28
6	73	70	143	50	23	50	20	44	. 3	34	-	47	34	81
7	55	66	121	39	16	47	19	35	3	27		38	27	65
8	68	61	129	39	29	41	20	35		21	5. -	35	21	56
Total	383	395	778	252	131	258	137	229	11	167	2	240	169	409

TABLE NO. S.2-(Contd.)

Sambalpur Zone: Distribution of members of sample farm families by sex, age, main and subsidiary occupation, classified by the size of the cultivated holdings of the families

Groups*	Male ad		Fema	le Adult	earners' o	cc upations	Non-adult earners' occupations						
	Agriculture		Labour		Other	Agriculture		, Labour		Other	Agricul-	Labour	Othc r
	Full- Time	Part- Time	Agricul- ture	Non- Agricul- ture	occupa- tions	Full- Time	Part- Time	Agricul- ture	Non- Agricul- ture	occupa- tions	ture	occupa- tions	
1	8		3	1	3		6		1	•			
2	25	_	1	1	2	_	25	1	—	1			1
3	22				2		14	2			2		
4	26		2	1 .	2	1	22			2	1		1
5	14	<u></u>	1		1	1	9				1		1
6	40		1	2	1	4	29		· <u> </u>	1	1 ···		2
7	31 🛹		1	3			24		3		1		2
8	31	1		1	2	1	20				-		—
Total`	197	1	9	9	. 13	7	149	3	4 •	4	6	-	· 7

* These groups have the same acreages and the same number of farms as in Table No. S. 1.

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APPENDIX II

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TABLE NO. S.2-(Contd.)

Sambalpur Zone: Distribution of members of sample farm families by sex, age, main and subsidiary occupation, classified by the size of the cultivated holdings of the families.

Groups*	Male aduli	t earners with s	ubsidiary occi	upations	Female ad	ult carners wit	Number of	Number of		
	Agriculture	Labour Agriculture Non- Agriculture		Other	Agriculture	La	bour	Other	work during	allachea farm
				occupations	· · · ·	Agriculture Non- Agriculture		occupations	the year	3CT YQJLI 3
1	6	1	3	2	1	2	•		1	-
2	4	12	2	5	1	5		5		2
3		7	3	4	2	1	-	3		
4	1	13	1	5	1	2	<u> </u>	1		
5	1	. 4		4		2		1		2
6	1	6	2	8		6		5	•	- 7
7	3	7	· ••••	2	3	2		2		4
8.		-	1 -	4	4				-	22
Total	16	50	12	34	8	20		18	1	37

TABLE NO. S.3

Sambalpur Zone: Reported reasons for the cultivated land (area in acres) in the sample remaining fallow (during 1955-6)

				•	R	easons of fall	'ow			
Groups*	i* Total Sho fallow		Shortage of seeds	Want of farm implements, etc.	Want of money	Sandy	High and stony	Others	Reasons not stated	
1		0.25			• . 	• •	0 -05		0 • 20	
2		0 •94	0.38		·	0 •40	0.16			
3	. X	2.13	0.61	0.12	·	0.25	0.50	<u> </u>	0.65	
4	· ·	2 • 97	2.22					0.60	0.15	
5		4 • 93	4 • 10				<u> </u>		0.83	
6		11 - 31	4 • 39	 	0 • 26		4.41		2.25	
7	• •	10.68	6 • 23		· · ·	. —	1 •32	. 	3 • 13	
8	· · ·	35 •95	·19 •76		•	. —	2.07		14 • 12	
Total		69 ·16	37 •69	0.12	0 • 26	0.65	8 • 51	0.60	21 - 33	
10141		03.10	57.05	0.12	U 20 .					

TABLE NO. S.4

Sambalpur Zone: Distribution of the net cultivated area in the sample farms classified by the size (area in acres) of their cultivated holdings, under different crops (during 1955-6)

Group*	Paddy	Wheat	Other cereals	Total cereals	Green gram	Black gram	Kulthi	Chana	Total pulses and grams	Ground- nut	Other oil-seeds and condi- ments and spices	Jute
1	6 •08		0.12	6.20	0 -05		-		0 -05			
2	38 -08			38 -08	-	0 -60	0.30		0 -90	0.35	61±107	-
3	40-18	-	-	40 • 18	-	1-65	1-00	_	2 •65	-		
4	68 •21 •	-	0.50	68 •71 ·	1 • 25	0 -46		0.25	1 -96	0.82		
5	41 -95	-		41 -95	_	0 • 10	1-00	<u>ه</u> –	1 •10	1.10	0-05	
6	133 -48	0 -08	0 • 58	134 • 14	3 -93	4 -01	1 -80	2-00	11 •74	4 • 27	0 -51	0 -07
7	128 • 14	0.10	0.50	128 •74	0.30	2.66	1-00	0 • 50	4 -46	2.70	0.15	0.20
8	224 • 30	0 •97	2 -00	227 • 27		4 •60	0-20	-	4 •80	2 -96	1-60	0 -04
Tota <u>!</u>	680 -42	1 •15	3 • 70	685 ·27	5 • 53	14 -08	5.30	2.75	27 •66	12 • 20	2.31	0.31

TABLE No. S.4-(Contd.)

Sambalpur Zone: Distribution of the net cultivated area in the sample farms classified by the size (area in acres) of their cultivated holdings, under different crops (during 1955-6)

Groups*	Sugarcane	Potato	Vegetables	Total	Orchards and others	Gross	Fallow	Area crop-	Net culti-	Area irri the cur	igated during rent year
				,		croppea area		pea more than once	valea area	Net	Gross
1			0 •40	6.65		6.65	0.25	•••••	6 • 90	0 •40	, 0 •40
2	0.37		0 • 28	3 9 •98		39.98	0.94	0 • 23	40 • 69	0 • 12	0.12
3	0 • 17	_	0.75	43 ·75	_	43 ·75	2.13	0 • 25	45 •63	0 •42	0 •42
4	0.53		0 •95	72 97	0.05	73 -02	2.97	0 •40	75 . 59	4·45	4 • 45
5	e en La companya La companya di se	-	0 • 20	44 •40	0.25	44.65 -	4.93	- 0.25	- 49.33	4 •95	4 • 95
6	1 • 32	_	0 • 28	152 ·33	0 •08	152 •41	11 • 31	2.08	- 161 •64	4 • 53	4.53
7	. 1.41	0.05	0 • 73	138 ·44	-	138 •44	10 • 68	0 • 50	148 •62	9 • 41	9 • 41
* 8	2·52	0.15	0.66	240 .00	1.00	241 •00	35 •95	1 -23	275 •72	30 •95	30 • 95
Total	6 • 32	0•20	4.25	738 •5 2	1 • 38	739•90	69.16	4•94	804 • 12	55•23	55.23
										<u></u>	

* These groups have the same acreages and the same number of farms as in Table No. S. 1.

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Sambalpur Zone: Total farm and other assets and outstanding debts of sample farms classified by the size (area in acres) of their cultivated holdings (during 1955-6) (Value in Rs.)

•			Farm asset	15			Other a	ssels		Grand	Outsian	din g d ebt s
Groups*	Lan	d (own)	Implemer – value	nt Livestock value	Total value	Value of homestead	Value of non-farm	Other financial	Total	- total · value of assets	Value	Per cent of
	Area	Value				land and houses	implements	assets				assets
1	20 • 21	12,541 (89 ·35 %)	248 (1 •77 %)	1,247 (8 ·88 %)	14,036 (100%)	9,280	. —		9,280	23,316	110	0 • 78
2	37 •85	25,456 (87 · 39 %)	366 (1 ·26 %)	3,307 (11-35%)	29,129	11,515	20	-	11,535	40,664	1,713	5 ·8 8,
3	44 •90	29,318 (93 · 38 %)	429 (1·37 %)	1,648 (5·25°⁄2)	31,395	8,230	.		8,230	39,625	1,203	3.83
4	73 •44	42,544 (91 · 17 %)	497 (1-06%)	3,626 (7 ·77 °⁄)	46,667	20,460	-	10	20,470	67,137	1,060	2 • 27
5	47 •83	31,208 (92.66%)	387 (1·15 °/)	2,084 (6 · 19 %)	33,679 (100%)	12,000	100		12,100	45,779	1,482	4 •40
6	144 •61	90,995 (90 •04 %)	1,791 · (1 ·77 %)	8,279 (8 · 19 %)	101,065 (100 %)	26,850		-	26,850	127,915	3,988	3 -95
7	142 •87	90,814 (91 ·95 %)	857 (0 ·87 */)	7,090 (7 ·18 *()	98,761 (100,*)	16,405		-	16,405	115,166	1,016	1-03
8	266-43	204,668 (94 -00 %)	2,471 (1 ·14 %)	10,584 (4 •86 %)	217,723 (100%)	53,330	200	920	54,450	272,173	6,131	2.82
Total	778 ·14	527,544 (92 ·15 %)	7,046 (1 ·23 */)	37,865 (6 ·62 %)	572,455 (100%)	158,070	320	930	159,320	731,775	16,703	2 • 92

* These groups have the same acreages and the same number of farms as in Table No. S. 1.

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Sambalpur Zone: The number and value of different kinds of livestock on the sample farms classified by the size (area in acres) of their cultivated holdings (at the beginning of 1955-6) (Value in Rs.)

	Drau	ght cattle	Mile	h cattle	C	Calves	Value of	Total	Numb	e <mark>r of f</mark> amilie	es with dra	ught animal
Groups*	No.	Value	No.	•Value	No.	Value	other live- stock	value of livestock	Nil	One	Two	More than two
1	12	717	7	395	6	115	20	1,247	6		6	· ·
2	49	2,870	9 .	318	2	35	84	3,307	1	5	19	2
3	31	1,330	9	220	6 `	90	8	1,648	2	2	13	1
4.	47	3,107	11	404	10	85	30	3,626	1	2	15	4
5		1,740	5	255	3	35	54	2,084		1	7	3
6	75	5,745	40	1,712	31	. 709	113	8,279	· · .		17	11
7	62	4,786	43	1,759	33	544	1	7,090	 `	<u> </u>	7	11
8	69	6,495	36	2,600	48	1,453	36,	10,584			6	12
Total	372	26,790	160	7,663	139	3,066	346	37,865	10	10	90	44

* These groups have the same acreages and the same number of farms as in Table No. S. 1.

APPENDIX II

TABLE NO. S.7

Sambalpur Zone: The purchase, sale, death, birth, etc., of different kinds of livestock on the sample farms, arranged by size in acres, (during the year and the number at the end of 1955-6) (Value in Rs.)

			F	Purcha	ise					S	ale				,	Deat	h and	l dispe	osal	•	,		Birth an acquirin	nd 18	Tota end	al No. at of the y	the ear
Groups*	Draught	cartle	Milch cattle	and calves	Other	livestock	Total value	Draught	cattle	milch cartle	ana caives	Other	livestock	Total value	Draught	cattle	Milch cattle	and calves	Other	livestock	Total value	Draught Cattle	Milch cattle & calves	Other livestock	Draught cattle	Milch cattle and calves	Other livestock
	No.	Value	No.	Value	No.	Value	•	No.	Value	No.	Value	No.	Value		No.	Value	No.	Value	No.	Value							
1					-		_		—	—	وروبيته	. —					_	-		_	-	_			12	13	1
2	3	175					175	-			-		—				1	70	1	2	72	—	2	-	52	12	2
3	1	35	_	-		-	35		-		-		•	—				—	2	2	2	-	—	-	32	15	5
4	3	266	_			—	266	1	120		-	—		120	4	107	1	15			122	-			45	20	—
5	3	200	—	—			200	—	—		—		-				—							6	30	8	17
6	1	180					180			-		—			5	377	3	52			429		3	· —	71	71	15
7	2	106	—			-	106		-		_				1	4	1	15	—	-	19	-	2	—	63	77	1
8		-		-	-	-		-		_	_	_	_		1	—	3						8	10	68	89	25
Tot	al 13	962					962	1	120	_				120	11	488	9	152	3	4	644		15	16	373	305	66

* These groups have the same acreages and the same number of farms as in Table No. S · 1.

Sambalpur Zone :	Livestock produce a	nd sale on sample	farms classified	by t	the size	in acres	(during 19	955-6)
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uantity in mds. 	(Value in Rs.) — 7.00 (1.16%) —		(Value 143 ·00 323 ·00 275 ·50 352 ·00	e in Rs.) (80 ·91 %) (53 ·33 %) (63 ·94 %)	(Valu 33 ·75 275 ·62 155 ·37	(19 ·09 %) (45 ·51 %) (36 ·06 %)	(Value i 176 ·75 605 ·62 430 ·87	(100 %) (100 %) (100 %) (100 %)
t 0·35 	 7 ∙00 (1 •16%) 	•	143 ·00 323 ·00 275 ·50 352 ·00	(80 ·91 %) (53 ·33 %) (63 ·94 %)	33 •75 275 •62 155 •37	(19 ·09 %) (45 ·51 %) (36 ·06 %)	176 •75 605 •62 430 •87	(100%) (100%) (100%)
0.35	7·00 (1·16%) 		323 ·00 275 ·50 352 ·00	(53 ·33 %) (63 ·94 %)	275 •62 155 •37	(45 ·51 %) (36 ·06 %)	605 •62 430 •87	(100%) (100%)
´	<u> </u>		275 ·50 352 ·00	(63 ·94%)	155·37	(36 ·06%)	430 • 87	(100%)
	_		352 ·00	(60, 02.04)				
_				(58.83%)	246 ·37	(41 ·17%)	598 •37	(100%)
-	_ .		200 .00	(61 ·18 %)	126 - 87	(38 ·82 %)	326 • 87	(100%)
- .			879 • 50	(77 ·34%)	257 •75	(22 ·66 %)	1,137 •25	(100%)
	[•] .		546 •00	(77 ·68 %)	156 - 87	(22 ·32 %)	702 •87	(100%)
		. 1	1, 157 •00	(87 ·49 <i>%</i>)	165 ·44	(12.51%)	1,322 •44	(100%)
0.35	7.00 (.013%)		3,876 •00	(73 ·12%)	1,418 •04	(26 • 75%)	5,301 ∙04	(100%)
	0.35	0·35 7·00 (·013%)		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

* These groups have the same acreages and the same number of farms as in Table No. S. 1.

Sambalpur Zone: Value of farm implements, their sale and purchase on sample farms classified by size in acres (during 1955-6) (Value in Rs.)

.Groups*	Value of implements at the beginning of the year	Value of implements per farm	Value of implements pur- chased during the year	Value of implements sold during the year	Value of implements dis- carded as useless during the year
· · ·		•			0.76
1,	248	20.67	15-62	-	0.73
2	366	13.56	61-00	_	8-00
3	- 429	23.83	28 • 25	-	1 •50
4	497	22 • 59	110 -94		43 -06
5	387	38 - 18	25.75	_ .	8-00
6	1,791	63 -96	103 - 37		107 -87
7.	857	47 -61	207 -69	•••••	90 • 44
8	2,471	137 •28	65 -62	-	137-06
Total	7,046	45 -75	618 - 24		396 -68

* These groups have the same acreages and the same number of farms as in Table No. S. 1.

Sambalpur Zone: Investment and Disinvestment on sample farms classified by size in acres (during 1955-6) PART I--INVESTMENT (Value in Rs.)

c. •	Total purc	chase of land	Improve- nd	L	. .	to 4	n or f houses	L.	f other sets	s of		lumns	il of
Groups*	Area (acres)	Value (Rs.)	Permanent ments to la	Purchase of livestock	Purchase oj implements	Total of columns 1 i	Constructic purchase of	Purchase oj ornaments	Purchase o. financial as	Repayment debts	Advancing loans	Total of co 6 to 10	Grand Tota all items
		1	2	3	4	5	6	7	8	9	10	11	12
1			5.00	,	15.62	20 .62	·						22.62
2		_		175 -00	61 .00	236 ·00	40 ·00	 .	-	127 •37		167 ·37	403 ·37
3				35.00	28 - 25	63 • 25	_	•	<u>.</u>	38.00		38 .00	101 · 25
4	1.00	1,000 .00		266 •00	110 •94	1,376 •94	60 • 00	45-00	terest.	64 •00	· —	⁻ 169 •00	1,545 •94
5	•••••	·		200.00	25·75	225 -75	·	•••	·			-	225 • 75
6	-		146 •62	180 •00	103 · 37	429 · 99	198 ·0 0	80.00		1,022 • 50		1,300 • 50	1,730 •49
7			190.00	106 .00	207 -69	503 .69	36 •00		<u> </u>	138 .00	· ·	174 .00	677 ·69
8			169 •00		65 •62	234 •62		110 .00		514 •00		624 .00	858 ∙62
Total	1 .00	1,000 .00	510 .62	962 •00	618 ·24	3,090 •86	334 •00	235.00		1,903 -87		2,472 .87	5,563 •73

* These groups have the same acreages and the same number of farms as in Table No. S. 1.

APPENDIX II

•			-								-		(value in 13.)
Groups*	Sale Area (acres)	of Land Value Rs. 1	N Sale of Livestock	w Sale of implements	 Total of columns 1 to 3 	w Sale of houses	© Sale of ornaments	Sale of other L financial assets	. Recovery of loans	Other disinvest- ments	0 Incurring new debts	= Total of columns 5 to 10	5 Grand total of all tiems
1													
2			-	-				_		-	528 -00	528 -00	528 -00
3	•	-	-	-	-					· `	79-00	79 -00	79 -00
4			120 -00	-	120 -00	-		-	-	-	212-00	212-00	332-00
5		•••		-	-				-	-	152-00	152-00	152-00
· 6		-									1,142-00	1,142 -00	1,142-00
7			· ·	-	-		-	-	—		672 -00	672 -00	672 -00
8		-									2,312-00	2,312-00	2,312-00
Tota	al	-	120.00		120 -00						5,097 -00	5,097 -00	5,217-00

Sambalpur Zone: Investment and Disinvestment on sample farms classified by size in acres (during 1955-6) PART II-DISINVESTMENT

TABLE NO. S.10-(Contd.)

* These groups have the same acreages and the same number of farms as in Table o. S. 1.

TABLE NO. S.10-(Contd.)

Sambalpur Zone: Investment and Disinvestment on sample farms classified by size in acres (during 1955-6) PART III—INVESTMENT AND DISINVESTMENT (Value in Rs.

Groups*	No. of farms	Total investment in physical assets of farms	Total invetstment in houses	Total investment in ornaments, etc.	Total repayment of debts	Total investment	Total disinvestment in physical assets of farm	Total disinvestment in houses	Total disinvestment in ornaments etc.	Total new debts incurred	Total disinvest- ment	Net investment or disinvestment
1	12	20 .62				20.62		-				+ 20.62
2	27	236.00	40 ·0 0	-	127 ·37	403 ·37	_ ·			528 ·00	528 ·00	- 124.63
3	18	63 ·25			38.00	101 •25			· · ·	79 •00	79 •00	+ 22.25
4	22	1,376 •94	60·00	45 · 00	64.00	1,545 •94	120.00			212.00	332.00	+1,213 •94
5	18	225 -75		·		225 •75 .	<u> </u>			152.00	152.00	+ 73.75
6	28	429.99	198 -00	80.00	1,022 • 50	1,730-49				1,142 .00	1142 -00	+ 588.49
. 7	18	503 -69	36.00		138.00	677 •69	_		— ·	672·00	672.00	+ 5.69
8	18	234.62		110.00	514 •00	858 •62				2,312.00	2,312 •00	-1,453 •38
Total	154	3,090 •86	334 •00	235.00	1,903 •87	5,563 •73	120.00	<u> </u>		5, 097 •00	5,217 .00	+ 346.73

* These groups have the same acreages and the same number of farms as in Table No. S. 1.

+ Where the investment is more than disinvestment. - Where the disinvestment is more than investment.

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APPENDIX II

CUTTACK:

Cuttack : The Mahanadi Delta region of Cuttack district is a thickly populated region and the pressure on land is great. The average size of the cultivated holding was reported to be 2.83 acres only, nearly half of what it was for Sambalpur (Table No. C 1). The smallness of holdings is brought out more clearly by the fact that nearly two-thirds of the total number of cultivators had holdings of less than this average size. Indeed, over one-fifth of the cultivators had less than one acre, one - fourth had between one and two acres and another 22 per cent had between two and three acres only. And these two-thirds of the cultivators cultivated area. The smallest 20 per cent cultivated only four per cent of the total land. On the other hand, cultivators with five acres or more of cultivated holding were only 13 per cent of the total; but they cultivated nearly 40 per cent of the total area. Cultivators with more than 10 acres were less than three per cent only, but cultivated 13 per cent of the total area.

As in the data relating to the first round survey, these go to show the extreme smallness of holdings on the one hand, and the concentration of cultivated land in the hands of few cultivators on the other.

Most, but not all, the land cultivated by these farmers was owned. Nearly 75 per cent of the total land cultivated by the sample farmers was owned by them also, the rest having been leased in from others. The very smallest as also the very biggest and the middle group of cultivators (with between four and five acres of land) reported relatively lesser1 eased-in-land than others. Of the total land leased-in also, the group of cultivators with between one and four acres each accounted for more than 50 per cent.

There was very little leasing out of land, the land leased out being only about seven per cent of the total area leased in. Almost the entire area leased out was leased out by the small cultivators, those with less than three – acre holdings.

Leasing-in land to increase the size of one's operating farm unit was more prevalent among the medium cultivators. The bigger land owners, unless they leased out land, mostly cultivated their own. The very small owners, on the other hand, possibly found it more paying than tenancy or possibly did not lease in more land for a variety of factors like lack of equipment, capital, etc. which might be summed up by saying that they lacked an adequate base for farming on their own.

Family Members: Table No. C. 2 presents information regarding the composition of the sample farm families. The average family size was $5 \cdot 3$. Larger holdings and larger families went together. The proportion of carners in the family declined with the increase in the size of holding. This was particularly so in case of female earners.

The small cultivators treated cultivation as only a part-time occupation. The proportion of earners working full time on their farms increased with an increase in the size of farm. Employment of labour in agriculture was reported in the three smallest-size classes. Employment in other occupations was reported in all-size classes but the largest number in this category was concentrated in the smallest-size groups.

The same was the case with regard to subsidiary occupations. The proportion of earners with subsidiary occupations varied between 60 to 80 per cent in the three smallest-size classes and then sharply declined in the largersize classes. Most of the subsidiary employment was in agriculture and labour. Few females reported any subsidiary occupations. Migration for work outside the area was reported in all-size classes. The migrants were rather heavily concentrated in size groups of two to four acres. Only big farmers reported farm servants.

Land Utilization : The classification of land into different types in the delta was based on two factors : quality of the soil and the situation of land. Unlike the Sambalpur zone, however, the delta is a flat country, only very gently sloping towards the sea. Land was classified into two main types *Beali* and *Sarad. Beali* land was situated somewhat higher than *Sarad*, and water drained out more quickly from these lands. For that reason they were used for growing the short duration paddy crop which was reaped in August-September. *Sarad*, being the lower land, grew medium and long duration paddy. Of the total cultivated area surveyed in Cuttack district, only about 10 per cent was reportedly *Beali*, the rest *Sarad.**

The canal irrigation system in the district of Cuttack was nearly 90 years old. This irrigation was not perennial. Most of the canals and distributaries went dry during the four summer months, excluding the navigation canals, which also went dry by April of each year. This non-perennial irrigation, served the needs of *kharif* paddy, potato, jute, and pulses to a certain extent. However, not all land in the commanded area of the district was irrigated. The survey showed that only about 44 per cent of the total cultivated area was irrigated by these canals. All this land was irrigated during the *kharif* season for paddy mainly, and to a smaller extent for jute. During the *rabi* season only about 25 per cent of this area was irrigated for growing a second crop like pulses or to a much smaller extent, potato. All this of course was not canal irrigation, some non-canal areas were irrigated by water lifted from rivers, etc.

Not all land occupied for cultivation was put under the crop during the year. Only about three per cent of the total cultivated land was reported to be fallow. This, of course, was much less than in the Sambalpur zone. The reported reasons for keeping most of this land fallow are presented in Table No. C.3.

* There are four or five main classes of soil on the basis of which cultivated land in the region can be classified. But we had no enquiries conducted in the matter and no data were available on that point. Table No. C.4 presents data regarding the crop pattern of the sample farms in 1954-5. Paddy, naturally was the most dominant crop of the area occupying about 69 per cent of the gross cropped area. Pulses came next, occupying 27 per cent of the gross cropped area. Only about 2.37 per cent of the gross cropped area was under jute. The other crops like potato, sugarcane, wheat, tobacco, etc. occupied less than one per cent of the area.

Thus paddy and pulses-particularly mug or green gram-stood out as the two important crops of the area. Pulses were mostly grown as catch crops, sown on paddy lands after the harvesting of paddy. Most of the pulse crop was unirrigated, the irrigated pulses, according to our survey, accounting for less than a third of the total area under pulses.

Assets: Table No. C.5 presents information regarding the value of farm and non-farm assets of sample farms. The average value of farm assets per farm taking owned land, livestock and farm implements only was reported to be Rs. 1577 only. Nearly 89 per cent of this was accounted for by land, only about 10 per cent by livestock and the rest by farm implements.

The average value of land per acre in this area during the year of the survey was reported to be about Rs. 600. The average value of irrigated land (mostly canal irrigated) was estimated at about Rs. 700 only per acre, and unirrigated land at Rs. 530 per acre.

The average value of livestock owned per farm was estimated at Rs. 151 only. The larger the cultivated holding the greater was the holding of livestock. On the other hand, the value of livestock per acre went on diminishing as one moved from the smaller cultivator groups to larger ones, excepting the group of the biggest cultivators. This was also true of the number of bullocks per acre of cultivated land. Except for the very smallest cultivators the tendency was for number of bullocks per acre of cultivated land to decrease as one moved from small to large-size groups of farms.

The average value of farm implements per farm was a little over Rs. 22, per acre of cultivated land it was nearly Rs. 8. The value of implements per farm increased as the size of holding increased, until it reached the last group of 10 and more acres. The tendency was different if we look into the value of implements per cultivated acre. The value of implements per acre for the smallest cultivators was higher than for the rest, and excepting the very biggest group of cultivators it was practically the same for the different groups. For the biggest cultivators, however, it was the smallest. It is not quite clear why the very biggest cultivators in the region should report less of farm implements judged by their value per farm than most others.

For reasons already stated it was not possible to obtain data separately for farm houses. The other assets of the farm family like houses, shares and deposits, etc. came to about Rs. 900 per family; houses, excluding the land on which they stood, being valued at about Rs. 600 on an average.

Livestock: Table No. C. 6 gives the number and value of livestock on sample farms in Cuttack. The main livestock on sample farms were bullocks and cows only a few farmers reporting some goats, sheep or poultry. There were no buffaloes in the region. Out of a total of 260 farms surveyed, 211 had bullocks. Most of the farms without bullocks were in the smallest-size groups, where also most farms had no bullocks or only one. Excepting this group of smallest cultivators the net cultivated area per pair of bullocks went on increasing as the size of the holding increased. In general, it can be said that owning of milch cattle was larger among larger cultivators. The fact that milk was in greater demand in these areas than in the Sambalpur zone, might explain the difference between the two regions in this respect.

The average value of a bullock was reported to be Rs. 70 only. Most of these bullocks were reportedly purchased (Tables Nos. C. 7 and C. 8). Of the total stock of bullocks reported at the beginning of the year, only three per cent were home-bred and 97 per cent had been purchased. The extraordinary purchase rate would appear rather surprising when one remembers the fact that there was no or little special breeding of bullocks in this region. The peculiar custom of not using the home bred bullock on one's own farm for cultivation might account for these large purchases. During the year 49 bullocks or 13 per cent of the total stock were purchased, and 42 bullocks or 11.6 per cent of the total stock were sold. The data for sale and purchase of draught cattle relate to the cultivators only. Among non-cultivators there might be families, who were either engaged in regular livestock breeding business or in the sale of draught cattle. There, however, will be no non-cultivating families, excepting the pure trader, who also purchase draught cattle. We have no special information of such families. But it would be safe, in view of the small difference between the sale and purchase figures, to assume that there were practically as many sales as purchases of draught animals in this region. The difference between the value of sales and purchases of draught cattle was, however, much greater. Whereas the average value of bullocks purchased during the year was reported to be Rs. 70 (the same as the value of the existing stock), the sale value of a bullock was reported to be Rs. 48 only. Purchases roughly covered the total deaths and sales of draught cattle, total purchases being 49 and total sales and deaths numbering 52. Most purchases and sales and even deaths were confined to the smaller cultivators.

Milch cattle including young stock increased from 498 in the beginning of the year to 512 at the end. Out of this the cows numbered only 263, less than the total number of bullocks. The total number of cows and young stock sold during the year was higher than the number purchased, apparently the excess sales were to non-cultivators who wished to possess milch cattle. The deaths were more than made up by births. Though there was no regular breeding of milch cattle, the practice of selling the surplus milch animals to non-agriculturists was noticeable in this region.

Receipts from Livestock: Tables present information about the receipts from livestock on sample farms during 1954-5. The two important products of livestock were milk and milk products, and cattle droppings. $F_{..18}$

The droppings of cattle were partly used as farmyard manure and partly turned into dung cakes to be used as fuel. They accounted for half of the total livestock produce. The other half was milk and milk products. A little was derived from eggs and some from sale of hides and skins.

Most of the livestock produce was used in the farm or by the family. A negligible quantity of the farmyard manure was sold, almost the entire quantity being used on the farm. So also with dung cakes, which were used by the farm family as fuel. Only milk and milk products were sold to some extent. A little over one-third of the total milk produced and over half of the total milk products made were sold. Milk products consisted mostly of curd, buttermilk and ghee, and these were produced for the market since they fetched a good price.

Farm Implements : Table No. C. 9 gives the value, sales and purchases of implements on sample farms in 1954-5. The farm implements used were of the traditional sort, even the iron plough having made little headway here so far. The bullock cart was the only expensive farm equipment, and that too was not to be found everywhere. In some of the grids none of the sample farm families had bullock carts. These were mainly areas liable to floods where carts could not be used for transport during the rainy season. During the rest of the year they had mostly to purchase farm produce rather than sell. No non-farm work in which the bullock carts were necessary was available in these areas. The innumerable streams and rivers that had to be negotiated to go from one place to another in these flooded areas made bullock cart a useless means of transport. To add to it was the almost complete absence of made-roads in the area.

The average value of farm implements per farm family came to about Rs. 22 only. One-third of this was replaced every year, which might roughly indicate the rate of depreciation, a rate considerably higher than in the Sambalpur zone.

Investment and Disinvestment: Table No. C. 10 presents data regarding investment and disinvestment on sample farms in 1954-5. The average per farm investment in the total physical assets of the farm was very small. And over 50 per cent of the total annual investment was in land, the remaining being in livestock and implements.

In regard to investment in land, though purchase or sale of land were investment or disinvestment activities from the individuals' point of view, they were only transfer expenditures for the community as a whole. The real investment was investment in land improvement which was precious a little. The transactions in livestock and implements have already been examined.

In regard to disinvestment, there was no sale of implements and the sale of land and livestock were the only two items which were roughly equal in importance.

Most of this investment or disinvestment activity was confined to the middle and small peasants, the large ones reporting very little of it.

APPENDIX II

Whether one includes land transactions or excludes them, on each item and on the total, there was some net investment reported. In regard to land it meant that cultivators reported a net purchase of land, obviously from noncultivators : only 2.91 acres were reported as sold whereas 6.91 acres were purchased.

We have so long been discussing investment in the physical assets of the farm. There were other investment activities also, such as (a) financial investments which might at least partly be related to farm business and (b) other pure non-farm investment activities like construction or major repair to houses, purchase of bullion and ornaments, etc. If borrowing and repayment as also recovery of loans and lending were considered as disinvestment or investment activities then the result was a very small net disinvestment. If the other investment activities like construction of houses and purchase of ornaments were taken into account, then the net position was investment to a certain extent.

It is, however, not possible to say how much of the house-building expense was in the nature of major repairs and replacement expense and how much was real net addition to new houses. As for land it was a transfer expenditure and purchase of livestock or implements was mostly replacement expenditure. Though it is difficult to calculate net investment or disinvestment in the sense of a net real addition to assets, it is quite clear from the above that almost all the so-called investment expenditure was really replacement expenses.

Cuttack District: Distribution of sample farms according to area (in acres) cultivated, owned, etc., (during 1954-5)

	•	F	arms			Cultiv	ated area			Average	Total o	wned area	Average
Groups	Årea	No.	% of the	•	Total	0	wned	Le	ased in	size of cultivat-	Area	Out of	land revenue
			total	Area	% of the total	Area	% of net cultivated	Area I	% of net cultivated	ed hold- ing		this leas- ed out	payable per acre (Rs.)
1	Less than 1.00	55	21 • 15	30 • 53	4 • 14	24 • 56	80 •45	5 -97	19 - 55	0.22	2 ∮ •86	2.30	3 ·84
2	1 to 1 •99	66	25.39	95 -61	12 •98	69 ·44	72 •63	26 • 17	27 • 37	1-45	72 ·60	3 · 16	3.77
3	2 to 2.99	58	22 · 31	143 •18	19 •44	98 ·72	68 ·95	44 •46	31-05	2 • 47	104 - 53	5-81	3 - 32
4	3 to 3 •99	27	10 • 38	92 ·79	12 -60	64 •45	69 •46	28 • 34	30 - 54	3 •44	64 -45		3 • 70
5	4 to 4 •99	19	7-31	84 •90	11-53	71 -63	84 ·37	13 - 27	15-63	4 •47	71 -63	-	· 3·27
6	5 to 6 •99	17	6.54	101 - 37	13 • 76	73 ·34	72 - 35	28 -03	27 -65	5 -96	73 · 58	0 • 24	3 - 15
7	7 to 9 •99	11	4 ·23	90 -47	12 - 28	70 •97	78 -45	19 -50	21 - 55	8·22	71 - 41	0 •44	2.59
8	10.00 and above	7	2.69	97.73	13 - 27	83 ·34	85 ·28	14 • 39	14 • 72	13 -96	83 ·73	0 • 39	3 - 30
	Total	260	100%	736-58	100%	556-45	75.55	180 • 13	24 •45	2 -83	568 •79	12.34	3 - 32

Cuttack District: Distribution of members of sample farm families by sex, age, main and subsidiary occupation, classified by the size of the cultivated holdings of the families

	Fa	amily mer	nbers	Male .	Memb ers	Female	members	Male	earners	Female	e earners		Total earner.	S
Groups*	Male	Female	Total	Adult	Non- adult	Adult	Non- adult	Adult	Non- adult	Adult	Non- adult	Male	Female	Total
1	103	108	211	69	34	70	38	66	4	23		- 70	23	93
2	147	143	290	98	49	97	46	91	4	24,		95	24	119
3	159	165	<u>32</u> 4	98	61	115	50	93	3	23		96	23	119
4	74	69	143	53	21	46	23	49	2	3	-	51	3	54
5	51	71	122	36	15	42	29	33	1		<u></u>	3 4 ·		34
6	62	63	125	39	23	43	20	33	3	5		36	5	41
7	45	45	90	33	12	35	10	28	3	1	·	31	1	32
8	40	38	78	25	15	27	11	20				20		20
Total	681	702	1,383	451	230	475	227	413	.20	79	 	433	79	512
	· . · · ·					. .					<u></u>	······		. · ·

* These groups have the same acreages and the same number of farms as in Table No. C. 1

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TABLE NO. C.2-(Contd.)

Cuttack District: Distribution of members of sample farm families by sex, age, main and subsidiary occupation, classified by the size of the cultivated holdings of the families

	Ма	le adult e	arners' occ	upatio n		Fem	al e a dult (earners' occ	cupation		Non-adul	t earners'	occupation
Groups*	Agric	culture	La	abour	Other	Agria	culture	La	bour	Other	Agricul-	Labour	Other
	Full- time	Part- time	Agricul- ture	Non-agri- culture	occupation	Full- time	Part- time	Agricuļ- ture	Non-agri- culture	occupation	Ture		occupation
1	21		30		15		1	10	1	11		1	3
2	73	1	8	1	8	3	4	3		14			4
3	80		4	1	8	2	3	5	—	13	 ,		3
4	45	_		_	4	-	1	-	: —	2	1	_	1
5	29	-	_		4	-	-			—		_	1
6	29		1		3	-		-		5	- '		3
7	27	1								1	1		2
8	17	_	_	-	3		_	_			—	-	
Total	321	2	43	2	45	5	. 9	18	1.	46	2	1	17

* These groups have the same acreages and the same number of farms as in Table No. C. 1.

TABLE NO. C.2—(Contd.)

Cuttack District: Distribution of members of sample farm families by sex, age, main and subsidiary occupation, classified by the size of the cultivated holdings of the families

Groups*	Male add	ult <mark>e</mark> arners wit	h subsidiary o	occupation	Female a	adult earners w	ith subsidiary	occupation	No. of	No. of atta-
Groups+	Agriculture	Lal	our	Other	Agriculture	Lab	our	Other	migrants for work	ched farm servants
		Agriculture	Non- agriculture	occupation		Agriculture	Non- agriculture	occupation	during part of the year	
1	35	14	2	4	6	2			1	
2	12	42	4	16	1	1	1	_	2	. ·
. 3	10	39	4	20	5	1		_	4	2
4	1	17	2	9			<u> </u>		3	1
5	- 3 -	5	1	3		_			1	2
6	4	6	3	4	_					7
7	` .	6	·	, 6	_	—			· · ·	3
8	1		 	.4		· <u> </u>		•	1	5
Total	66 ,	129	16	66	12	4	1		12	20
				····		· · · · · · · · · · · · · · · · · · ·		· · · · ·	• •	·

* These groups have the same acreages and the same number of farms as in Table No. C. 1

TABLE NO. C.3

Cuttack District: Reported reasons for the cultivated land (area in acres) in the sample farms remaining fallow (during 1954-5)

Groups*	Total –	· · ·			Reasons	of fallow			
Groups+	fallow	Shortage of seeds	Due to seaso- nal vagaries	Sandy Iand	High and stony land	Low land	Shrub and bush etc.	Others	Reasons not stated
1	1 •22	·	9000	0.50	0 -06			0 • 27	0 • 39
2	0 •68	-	····· •	0 • 22	0 -04	0.10	-	0 -02	0 · 30
3	2 • 27	_	0 -07	-	0.66	0 -18		0 •47	0 .89
4	1 - 56		0 -08	0 -58	0-09				0-81
5	2 • 94	-	0 -03	1	0 -49	0 • 50		0 -99	0 -93
6	3.86			1 -80	0-08		0.36	- .	1 .62
7	0.65			0.11	0.13	0.16	 .		0 • 25
8	, 7 • 84	3 -00	0 -66	0.68		0 • 16	3 -04		0.30
Total	21 -02	3 -00	0 • 84	3.89	1 • 5 5	1 •10	3 •40	1 •75	5 •49

* These groups have the same acreages and the same number of farms as in Table No. C. 1.

Cuttack District: Distribution of the net cultivated area in the sample farms classified by the size (area in acres) of their cultivated holdings, under different crops (during 1954-5)

Beali paddy	Sarad paddy	Wheat	Other cereals	Total cereals	Green gram	Black gram	Kulthi	, Chana	Other pulses and grams	Total pulses and grams	Other oil seeds and condiments and spices	Jute
3.69	23 <u>·</u> 94		0.23	27 • 86	10.05	1 •78	2.88	0.56	0.11	15-38	0 .12	2.53
7 • 51	84 • 51		0.12	92 ·14	27 • 26	9 • 93	4 ∙64	0 •93		42 • 76	0.05	3 • 43
10.84	123 • 31	0.48	0.35	134 •98	38.85	9.82	7.85	3.88	0.38	60•78	0.25	5-31
9•18	79•34		0.30	88.82	19•39	4.64	3.61	0.91	— .	28 • 55	, 	2.00
10 • 16	70.05		0.10	80 ·31	14.88	5.11	11.90	1.97	-	33.86	· · · ·	4.00
6•72	88 • 18			94 •90	19•91	2.67	4.53	0.55	,	27.66	· · · · · ·	2.71
6.04	79.81	0 •08	1.00	86 •93	14•95	12.09	4.61		_	31.65		2•54
3.19	83•54			86 • 73	20.42	2.62	2.01	3.37	· · · · · · ·	28 • 42	ین در ا <u>م</u> ر در در مراجع	3.00
57•33	632 • 68	0•56	2.10	692•67	165•71	48.66	42.03	12.17	0•49	269 •06	0.42	25 • 52
	Beali paddy 3.69 7.51 10.84 9.18 	Beali Sarad paddy 3.69 23.94 7.51 84.51 10.84 123.31 9.18 79.34 10.16 70.05 6.72 88.18 6.04 79.81 3.19 83.54 57.33 632.68	Beali paddy Sarad paddy Wheat 3 · 69 23 · 94 7 · 51 84 · 51 10 · 84 123 · 31 0 · 48 9 · 18 79 · 34	Beali paddySarad paddyWheat cereals $3 \cdot 69$ $23 \cdot 94$ $0 \cdot 23$ $7 \cdot 51$ $84 \cdot 51$ $0 \cdot 12$ $10 \cdot 84$ $123 \cdot 31$ $0 \cdot 48$ $0 \cdot 35$ $9 \cdot 18$ $79 \cdot 34$ $0 \cdot 30$ $e = 10 \cdot 16$ $70 \cdot 05$ $0 \cdot 10$ $6 \cdot 72$ $88 \cdot 18$ $6 \cdot 04$ $79 \cdot 81$ $0 \cdot 08$ $1 \cdot 00$ $3 \cdot 19$ $83 \cdot 54$ $57 \cdot 33$ $632 \cdot 68$ $0 \cdot 56$ $2 \cdot 10$	Beali paddySarad paddyWheat cerealsOther cerealsTotal cereals $3 \cdot 69$ $23 \cdot 94$ $0 \cdot 23$ $27 \cdot 86$ $7 \cdot 51$ $84 \cdot 51$ $0 \cdot 12$ $92 \cdot 14$ $10 \cdot 84$ $123 \cdot 31$ $0 \cdot 48$ $0 \cdot 35$ $134 \cdot 98$ $9 \cdot 18$ $79 \cdot 34$ $0 \cdot 30$ $88 \cdot 82$ $- = 10 \cdot 16$ $70 \cdot 05$ $0 \cdot 10$ $80 \cdot 31$ $6 \cdot 72$ $88 \cdot 18$ $-94 \cdot 90$ $6 \cdot 04$ $79 \cdot 81$ $0 \cdot 08$ $1 \cdot 00$ $86 \cdot 93$ $3 \cdot 19$ $83 \cdot 54$ $-86 \cdot 73$ $57 \cdot 33$ $632 \cdot 68$ $0 \cdot 56$ $2 \cdot 10$ $692 \cdot 67$	Beali paddySarad paddyWheat cerealsOther cerealsTotal cerealsGreen gram $3 \cdot 69$ $23 \cdot 94$ $0 \cdot 23$ $27 \cdot 86$ $10 \cdot 05$ $7 \cdot 51$ $84 \cdot 51$ $0 \cdot 12$ $92 \cdot 14$ $27 \cdot 26$ $10 \cdot 84$ $123 \cdot 31$ $0 \cdot 48$ $0 \cdot 35$ $134 \cdot 98$ $38 \cdot 85$ $9 \cdot 18$ $79 \cdot 34$ $0 \cdot 30$ $88 \cdot 82$ $19 \cdot 39$ $- = 10 \cdot 16$ $70 \cdot 05$ $0 \cdot 10$ $80 \cdot 31$ $14 \cdot 88$ $6 \cdot 72$ $88 \cdot 18$ $94 \cdot 90$ $19 \cdot 91$ $6 \cdot 04$ $79 \cdot 81$ $0 \cdot 08$ $1 \cdot 00$ $86 \cdot 93$ $14 \cdot 95$ $3 \cdot 19$ $83 \cdot 54$ $86 \cdot 73$ $20 \cdot 42$ $57 \cdot 33$ $632 \cdot 68$ $0 \cdot 56$ $2 \cdot 10$ $692 \cdot 67$ $165 \cdot 71$	Beali paddySarad paddyWheat cerealsOther cerealsTotal cerealsGreen gramBlack gram $3 \cdot 69$ $23 \cdot 94$ $0 \cdot 23$ $27 \cdot 86$ $10 \cdot 05$ $1 \cdot 78$ $7 \cdot 51$ $84 \cdot 51$ $0 \cdot 12$ $92 \cdot 14$ $27 \cdot 26$ $9 \cdot 93$ $10 \cdot 84$ $123 \cdot 31$ $0 \cdot 48$ $0 \cdot 35$ $134 \cdot 98$ $38 \cdot 85$ $9 \cdot 82$ $9 \cdot 18$ $79 \cdot 34$ $0 \cdot 30$ $88 \cdot 82$ $19 \cdot 39$ $4 \cdot 64$ $- = 10 \cdot 16$ $70 \cdot 05$ $0 \cdot 10$ $80 \cdot 31$ $14 \cdot 88$ $5 \cdot 11$ $6 \cdot 72$ $88 \cdot 18$ $94 \cdot 90$ $19 \cdot 91$ $2 \cdot 67$ $6 \cdot 04$ $79 \cdot 81$ $0 \cdot 08$ $1 \cdot 00$ $86 \cdot 93$ $14 \cdot 95$ $12 \cdot 09$ $3 \cdot 19$ $83 \cdot 54$ $86 \cdot 73$ $20 \cdot 42$ $2 \cdot 62$ $57 \cdot 33$ $632 \cdot 68$ $0 \cdot 56$ $2 \cdot 10$ $692 \cdot 67$ $165 \cdot 71$ $48 \cdot 66$	Beali paddySarad paddyWheat cerealsOther cerealsTotal cerealsGreen gramBlack gramKulthi $3 \cdot 69$ $23 \cdot 94$ $0 \cdot 23$ $27 \cdot 86$ $10 \cdot 05$ $1 \cdot 78$ $2 \cdot 88$ $7 \cdot 51$ $84 \cdot 51$ $0 \cdot 12$ $92 \cdot 14$ $27 \cdot 26$ $9 \cdot 93$ $4 \cdot 64$ $10 \cdot 84$ $123 \cdot 31$ $0 \cdot 48$ $0 \cdot 35$ $134 \cdot 98$ $38 \cdot 85$ $9 \cdot 82$ $7 \cdot 85$ $9 \cdot 18$ $79 \cdot 34$ $0 \cdot 30$ $88 \cdot 82$ $19 \cdot 39$ $4 \cdot 64$ $3 \cdot 61$ $10 \cdot 16$ $70 \cdot 05$ $0 \cdot 10$ $80 \cdot 31$ $14 \cdot 88$ $5 \cdot 11$ $11 \cdot 90$ $6 \cdot 72$ $88 \cdot 18$ $94 \cdot 90$ $19 \cdot 91$ $2 \cdot 67$ $4 \cdot 53$ $6 \cdot 04$ $79 \cdot 81$ $0 \cdot 08$ $1 \cdot 00$ $86 \cdot 93$ $14 \cdot 95$ $12 \cdot 09$ $4 \cdot 61$ $3 \cdot 19$ $83 \cdot 54$ $86 \cdot 73$ $20 \cdot 42$ $2 \cdot 62$ $2 \cdot 01$ $57 \cdot 33$ $632 \cdot 68$ $0 \cdot 56$ $2 \cdot 10$ $692 \cdot 67$ $165 \cdot 71$ $48 \cdot 66$ $42 \cdot 03$	Beali paddySarad paddyWheat cerealsOther cerealsTotal cerealsGreen gramBlack gramKulthiChana $3 \cdot 69$ $23 \cdot 94$ $0 \cdot 23$ $27 \cdot 86$ $10 \cdot 05$ $1 \cdot 78$ $2 \cdot 88$ $0 \cdot 56$ $7 \cdot 51$ $84 \cdot 51$ $0 \cdot 12$ $92 \cdot 14$ $27 \cdot 26$ $9 \cdot 93$ $4 \cdot 64$ $0 \cdot 93$ $10 \cdot 84$ $123 \cdot 31$ $0 \cdot 48$ $0 \cdot 35$ $134 \cdot 98$ $38 \cdot 85$ $9 \cdot 82$ $7 \cdot 85$ $3 \cdot 88$ $9 \cdot 18$ $79 \cdot 34$ $0 \cdot 30$ $88 \cdot 82$ $19 \cdot 39$ $4 \cdot 64$ $3 \cdot 61$ $0 \cdot 91$ $-=10 \cdot 16$ $70 \cdot 05$ $0 \cdot 10$ $80 \cdot 31$ $14 \cdot 88$ $5 \cdot 11$ $11 \cdot 90$ $1 \cdot 97$ $6 \cdot 72$ $88 \cdot 18$ $94 \cdot 90$ $19 \cdot 91$ $2 \cdot 67$ $4 \cdot 53$ $0 \cdot 55$ $6 \cdot 04$ $79 \cdot 81$ $0 \cdot 08$ $1 \cdot 00$ $86 \cdot 93$ $14 \cdot 95$ $12 \cdot 09$ $4 \cdot 61$ $3 \cdot 19$ $83 \cdot 54$ $86 \cdot 73$ $20 \cdot 42$ $2 \cdot 62$ $2 \cdot 01$ $3 \cdot 37$ $57 \cdot 33$ $632 \cdot 68$ $0 \cdot 56$ $2 \cdot 10$ $692 \cdot 67$ $165 \cdot 71$ $48 \cdot 66$ $42 \cdot 03$ $12 \cdot 17$	Beali paddySarad paddyWheat cerealsOther cerealsTotal cerealsGreen gramBlack gramKulthiChana pulses and grams $3 \cdot 69$ $23 \cdot 94$ - $0 \cdot 23$ $27 \cdot 86$ $10 \cdot 05$ $1 \cdot 78$ $2 \cdot 88$ $0 \cdot 56$ $0 \cdot 11$ $7 \cdot 51$ $84 \cdot 51$ - $0 \cdot 12$ $92 \cdot 14$ $27 \cdot 26$ $9 \cdot 93$ $4 \cdot 64$ $0 \cdot 93$ - $10 \cdot 84$ $123 \cdot 31$ $0 \cdot 48$ $0 \cdot 35$ $134 \cdot 98$ $38 \cdot 85$ $9 \cdot 82$ $7 \cdot 85$ $3 \cdot 88$ $0 \cdot 38$ $9 \cdot 18$ $79 \cdot 34$ - $0 \cdot 30$ $88 \cdot 82$ $19 \cdot 39$ $4 \cdot 64$ $3 \cdot 61$ $0 \cdot 91$ - $- = 10 \cdot 16$ $70 \cdot 05$ - $0 \cdot 10$ $80 \cdot 31$ $14 \cdot 88$ $5 \cdot 11$ $11 \cdot 90$ $1 \cdot 97$ - $6 \cdot 72$ $88 \cdot 18$ $94 \cdot 90$ $19 \cdot 91$ $2 \cdot 67$ $4 \cdot 53$ $0 \cdot 55$ - $6 \cdot 04$ $79 \cdot 81$ $0 \cdot 08$ $1 \cdot 00$ $86 \cdot 93$ $14 \cdot 95$ $12 \cdot 09$ $4 \cdot 61$ $3 \cdot 19$ $83 \cdot 54$ $86 \cdot 73$ $20 \cdot 42$ $2 \cdot 62$ $2 \cdot 01$ $3 \cdot 37$ - $57 \cdot 33$ $632 \cdot 68$ $0 \cdot 56$ $2 \cdot 10$ $692 \cdot 67$ $165 \cdot 71$ $48 \cdot 66$ $42 \cdot 03$ $12 \cdot 17$ $0 \cdot 49$	Beali paddy Sarad paddy Wheat Other cereals Total cereals Green gram Black gram Kulthi Chana pulses and grams Other pulses and grams Total pulses and grams 3 ·69 23 ·94 - 0 ·23 27 ·86 10 ·05 1 ·78 2 ·88 0 ·56 0 ·11 15 ·38 7 ·51 84 ·51 - 0 ·12 92 ·14 27 ·26 9 ·93 4 ·64 0 ·93 - 42 ·76 10 ·84 123 ·31 0 ·48 0 ·35 134 ·98 38 ·85 9 ·82 7 ·85 3 ·88 0 ·38 60 ·78 9 ·18 79 ·34 - 0 ·30 88 ·82 19 ·39 4 ·64 3 ·61 0 ·91 - 28 ·55 -=10 ·16 70 ·05 - 0 ·10 80 ·31 14 ·88 5 ·11 11 ·90 1 ·97 - 33 ·86 6 ·72 88 ·18 - - 94 ·90 19 ·91 2 ·67 4 ·61 - - 31 ·65 3 ·19 83 ·54 - - 86 ·73 20 ·42 2 ·62 <t< td=""><td>Beali paddy Sarad paddy Wheat Other cereals Total cereals Green gram Black gram Kulthi Chana Other pulses and grams Other oil pulses and grams Other oil seeds and condiments and spices 3 ·69 23 ·94 — 0 ·23 27 ·86 10 ·05 1 ·78 2 ·88 0 ·56 0 ·11 15 ·38 0 ·12 7 ·51 84 ·51 — 0 ·12 92 ·14 27 ·26 9 ·93 4 ·64 0 ·93 — 42 ·76 0 ·05 10 ·84 123 ·31 0 ·48 0 ·35 134 ·98 38 ·85 9 ·82 7 ·85 3 ·88 0 ·38 60 ·78 0 ·25 9 ·18 79 ·34 — 0 ·</td></t<>	Beali paddy Sarad paddy Wheat Other cereals Total cereals Green gram Black gram Kulthi Chana Other pulses and grams Other oil pulses and grams Other oil seeds and condiments and spices 3 ·69 23 ·94 — 0 ·23 27 ·86 10 ·05 1 ·78 2 ·88 0 ·56 0 ·11 15 ·38 0 ·12 7 ·51 84 ·51 — 0 ·12 92 ·14 27 ·26 9 ·93 4 ·64 0 ·93 — 42 ·76 0 ·05 10 ·84 123 ·31 0 ·48 0 ·35 134 ·98 38 ·85 9 ·82 7 ·85 3 ·88 0 ·38 60 ·78 0 ·25 9 ·18 79 ·34 — 0 ·

* These groups have the same aereages and the same number of farms as in Table No. C. 1.

APPENDIX II

TABLE No. C.4-(Contd.)

Cuttack District: Distribution of the net cultivated area in the sample farms classified by the size (area in acres) of their cultivated holdings, under different crops (during 1954-5)

Groups*	Sugarcane	Tobacco	Potato	Vegetables	Pan groves	Total	Orchards and	Gross cropped	Fallow	Area cropped	Net cultivated	Area irrig the curr	ated during ent year
•							others	area	, 	once	area	Net	Gross
1			0.16	0 • 16		46 ·21		46 ·2 1	1 •22	16 • 90	30 • 53	14 -90	21 •52
2	0 •08	-	0 • 59	0.17	` 	1 3 9 ·22	0 •65	139 •87	0 •68 ·	44 •9 4	95 ·61	53 _' 46	72 •76
3	0 •10		0 • 19	<u> </u>	· •••	201 ∙61	0 •94	202 ·55	2 • 27	61 •64	143 •18	72 ·08	91 ·96
4		0.06	0 •08		0·11	119 •62	0 • 27	119 ·89	1 •56	28 ·66	92 · 79	42 • 52	50 -10
5	0 • 10		0 •20		-,	118 •47	0.05	118 • 52	2 .94	36 • 56	84 •90 ·	33 • 13	41 - 48
6	0.11		0 • 52		-	125 •90	0.88	126 • 78	3 •86	29 • 27	101 •37	52 ·20	66 ·09
7	0 -04	0.10	-	_		1 2 1 •26	0.33	121 • 59	0.65	3 1 •77	9 0 •47	37 - 57	45 · 5 7
8	0 • 10	0-05	-			118 -30	0.11	118 • 41	7 •84	28 52	97 •73	18 • 53	18 • 53
Toial	0 •53	0 •21	1 •74	0.33	0.11	990 • 59	3 • 23	993 ·82	21 •02	278 - 26	736 • 58	324 • 39	407 -91

* These groups have the same acreages and the same number of farms as in Table No. C. 1.

Cuttack District: Total farm and other assets and outstanding debts of sample farms classified by the size (area in acres) of their cultivated holdings (during 1954-5)

							(rai	ue in Ks.)					
			Farm asse	ts			. (Other asset	<i>'S</i>		Grand	Outstand	ing debts
Groups*	1	.and	Value of imple-	Value of livestock	Total Value	Value of home-	Value of houses	Value	Other	Total	total value of	Value ?	% of farm
	area	value	ments			stead land	oj nouses	farm im- plements	assets	VUIUC	<i>ussels</i>		<i>aseis</i>
1	26.86	20,726	369	2,679	23,774	1,355	21,705			23,060	46,834	2,888	12.15
2	72.60	(87·18%) 59,931	(1·55%) 971	(11·27%) 6,923	(100 %) 67,825	3,936	33,770	270	220	38,196	106,021	5,162	7 •61
3	104 ·53	(88 ·36%) 76,641	(1·43%) 951	(10·21%) 6,953	(100%) 84,545	2,062	31,905			33,967	118,512	7,411	8 • 77
4	64 • 45	(90 ·65 %) 42,847	(1 ·13 %) 777	(8 ·22 %) 4,656	(100 %) 48,280	585	16,915	33	1,000	18,533	66,813	3,433	7.11
5	71.63	(88 ·75%) 45,117	(1 ·61 %) 703	(9 ·64 %) 4,419	(100 %) 50,239	643	17.045		-	17.688	67.927	2,498	4.97
6	73.58	(89 ·80 %)	(1.40%)	(8 ·80 %)	(100%)	472	17 225	1000 <u></u> 1000		17 607	67 654	2 190	6.27
	, , 71 41	(88.08%)	(1 .73%)	(10.19%)	(100%)	714	10,120			11,071	07,054	5,100	0.10
/	/1•41	31,401 (87 ·24%)	833 (2·32%)	3,739 (10·44%)	(100%)	906	12,170	•••••		13,076	49,069	3,033	8.43
8	83 •73	43,954 (89 •54 %)	302 (0 •62 %)	4,831 (9 ·84%)	49,078 (100 <i>%</i>)	215	9,550		,	9,765	58,843	3,996	8 • 14
Total	568 •79	364,610 (89 •00 %)	5,769 (1 ·41 %)	39,312 (9 •59 %)	409,691 (100%)	10,174	160,285	303	1,220	171,982	581,673	31,601	7 •71

Part I

* These groups have the same acreages and the same number of farms as in Table No. C. 1.

APPENDIX Ħ

TABLE NO. C.5—(Contd.)

Cuttack District: Total farm and other assets and outstanding debts of sample farms classified by the size (area in acres) of their cultivated holdings (during 1954-5)

Part II (per farm)

<u>)</u>													
			Farm asse	ts.				Other asse	15		Grand	Outstand	ling debts
Groups*	Land (own)		Value	Value	Total	Value	Value	Value	Other	Total	value	Value	% of farm
	Area	Value	- of Imple- ments	oj livestoek	vaiue	of nome- stead land	oj nouses	oj non- farm im- plements	jinanciai asseis	vaiue	oj assets		asseis
1	0 • 49	376 .84	6.71	48 • 71	432 ·26	24 •64	394 ∙63			419 ·27	851-53	52 ·51	12.15
2	1.10	908 -05	14 • 71	104 •89	1,027 -65	59 ·64	511 -67	4 -09	3.33	578 ·73	1,606 • 38	78 ·21	7 -61
3	1 -80	1,321 -39	16 •40	119 •88	1,457 •67	35.55	550-09	_	-	585-64	2,043 - 31	127 • 78	8 ·77
4	2.39	1,586 -93	28 • 78	172 •44	1,788 -15	21 -67	626 ·48	1 -22	37 -04	686 ·41	2,474 • 56	127 - 15	7.11
5	3 • 77	2,374 • 58	37 -00	232 - 58	2,644 • 16	33 - 84	897 ·11			930 •9 5	3,575 -11	131 - 47	4 -97
6	4.33	2,588 -35	50 ·77	299 ·53	2, 938 •65	27 · 76	1,013 -24			1,041 -00	3,9 79 •65	187-06	6.37
7	6 • 49	2,854 •63	75 ·73	341 • 73	3,272-09	82 - 36	1,106 - 37			1,188 •73	4,460 .82	275 ·73	8 -43
8	11 •96	6,2 77 ·86	43 · 14	690 - 14	7,011 ·14	30 • 71	1,364.•29	_		1,395 -00	8,4 06 · 14	570 <i>·</i> 86	8·14
Total	2 • 19	1,402 • 34	22 • 19	151 -20	1,575 •73	39 • 13	616 - 48	1 - 17	4 -69	661 -47	2,237 • 20	121 • 54	7 • 71

* These groups have the same acreages and the same number of farms as in Table No. C. 1.

ECONOMICS OF A MULTI-PURPOSE RIVER DAM

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(Value in R.)

Cuttack District: The number and value of different kinds of livestock on the sample farms classified by the size (area in acres) of their cultivated holdings (at the beginning of 1954-5)

Draught cattle Milch cattle Calves Value of Total Number of families with draught animals Groups* other value of -No. Value No. Value No. Value livestock livestock Nil One Two More than two 1 19 992 21 605 40 934 148 2,679 37 17 1 75 1,608 48 675 176 6,923 41 17 2 4,464 42 8 178 39 86 4,693 53 1.425 657 6,953 23 30 3 4 1.164 26 4,656 50 3,071 38 349 72 23 4 4 - 38 2,960 25 1,037 352 4,419 15 5 24 70 2 2 35 3,108 35 1,336 29 440 208 5,092 3 11 6 3 3,111 21 397 33 13 169 82 3,759 7 2 8 3,254 . 28 1,458 4,831 28 11 119 8 6 934 364 25,653 263 9,030 230 3,695 39,312 49 91 100 Total 20

Part I

(Value in Rs.)

* These groups have the same acreages and the same number of farms as in Table No. C. 1.

APPENDIX II

TABLE NO. C.6-(Contd.)

Cuttack District: The number and value of different kinds of livestock on the sample farms classified by the size (area in acres) of their cultivated holdings (at the beginning of 1954-5)

		Per farm		Per a	cre of net cultivated a	rea
Groups*	Draught cattle	Milch cattle	Other livestock	Draught cattle	Milch cattle	Other livestock
1	0.35	1-11	0 • 75	0 •62	2.00	1 •34
2	1 •17	1.44	0.36	0 -81	0.99	0 • 25
3	1-34	1 •71	0.59	0-54	0 -69	0 - 24
4	1 -89	2.30	0 • 56	0 -55	0 •67	0.16
5	2 -00	2.79	0 -68	0 -45	0 .62	0.15
6	2 • 23	3.76	1 -24	0 • 37	0 -63	0 -21
7	2 -91	3 -00	1 -64	0 -35	0 -36	0 • 20
8	4 -00	6-43	-	0 • 29	0 • 46	
Total	1 • 39	1 -97	0.64	0.49	0 • 70	0 -23

Part II (per farm, per acre)

(Value in Rs.)

* These groups have the same acreages and the same number of farms as in Table No. C. 1.

Cuttack District: The purchase, sale, death, birth, etc. of different kinds of livestock on the sample farms, arranged by size in acres, (during the year and the number at the end of 1954-5)

(Value in Rs.)

			Purchase						S	ale		•	
Draug	ght cattle	Milci and	h cattle calves	Other	livestock	Total value	Draug	ht cattle	Milch and	cattle calves	Other	livestock	Total value
No.	Value	No.	Value	No.	value	· · ·	No.	Value	No.	Value	No.	Value	
4	185	-		2	25	210	3	182	4	70	3	50.50	302.50
19	1,387	2	24			1,411	14	590	. 1	20			610 .00
11	586	·	·	·	·	586	. 16	751	2	94	1	50.00	895 ∙00
4	211		. —	_	· ·	211	2	166	3	19		— .	185 -00
6	663			3	· 19	682	6	317	1	120			437 .00
3	285	_	. — *	 ,	·	285	• 	· _	3	78		<u> </u>	78 -00
2	125	_		_		125	.1	10	- ·		·		10 .00
	 -	2	70	_		70	· <u> </u>			د	. —		
49	3,442	4	94	5	44	3,580	42	2,016	14	401	4	100 • 50	2,517 - 50
	Draug No. 4 19 11 4 6 3 2 	Draught cattle No. Value 4 185 19 1,387 11 586 4 211 6 663 3 285 2 125 49 3,442	Draught cattle Milciand No. Value No. 4 185 19 1,387 2 11 586 4 211 6 663 3 285 2 125 2 49 3,442 4	PurchaseDraught cattleMilch cattle and calvesNo.ValueNo.Value4185191,3872191,387224115864211666332852125270493,442494	PurchaseDraught cattleMilch cattle and calvesOther and calvesNo.ValueNo.ValueNo.4185 $ -$ 2191,387224 $-$ 11586 $ -$ 4211 $ -$ 6663 $ 3$ 3285 $ -$ 2125 $ 2$ 70 $-$ 49 $3,442$ 4 94 5	PurchaseDraught cattleMilch cattle and calvesOther livestockNo.ValueNo.ValueNo.4185 $ -$ 225191,387224 $ -$ 11586 $ -$ 4211 $ -$ 6663 $ -$ 2125 $ -$ 2125 $ -$ 493,442494544	PurchaseDraught cattle and calvesMilch cattle and calvesOther livestock No.Total valueNo.ValueNo.ValueNo.value4185225210191,3872241,411115865864211211666331968232852852125125270-70493,4424945443,580	Purchase Draught cattle Milch cattle and calves Other livestock Total value Draug No. Value No. Value No. value No. 4 185 - - 2 25 210 3 19 1,387 2 24 - 1,411 14 11 586 - - - 586 16 4 211 - - - 586 16 4 211 - - - 285 - 2 125 - - - 125 1 - - 2 70 - 70 - 49 3,442 4 94 5 44 3,580 42	PurchaseDraught cattleMilch cattle and calvesOther livestockTotal valueDraught cattleNo.ValueNo.ValueNo.valueNo.Value41852252103182191,3872241,411145901158658616751421121121666663319682631732852852125125110270-70493,4424945443,580422,016	PurchaseSDraught cattleMilch cattle and calvesOther livestockTotal valueDraught cattleMilch and calveNo.ValueNo.ValueNo.valueNo.ValueNo.418522521031824191,3872241,41114590111586586167512421121121663666331968263171328528532125125110270-70493,4424945443,580422,01614	Sale Draught cattle Milch cattle Other livestock Total value Draught cattle Milch cattle No. Value No. Value No. value No. Value No. Value 4 185 - - 2 25 210 3 182 4 70 19 1,387 2 24 - - 1,411 14 590 1 20 11 586 - - - 211 2 166 3 19 6 663 - - - 285 - - 3 78 2 125 - - - 125 1 10 - - 49 3,442 4 94 5 44 3,580 42 2,016 14 401	Sale Draught cattle Milch cattle Other livestock Total value Draught cattle Milch cattle Milch cattle Milch cattle Milch cattle Other livestock Total value Draught cattle Milch cattle Other No. Value No. Value No. Value No. Value No. 4 185 - - 2 25 210 3 182 4 70 3 19 1,387 2 24 - - 1,411 14 590 1 20 - 11 586 - - - - 586 16 751 2 94 1 4 211 - - - 2 166 3 19 - 3 285 - - - 2 125 1 1	SaleDraught cattle and calvesOther livestockTotal valueDraught cattle and calvesMilch cattle and calvesOther livestockNo.ValueNo.ValueNo.ValueNo.ValueNo.Value41852252103182470350.50191,3872241,411145901201158658616751294150.00421121121663193285285378212570493,4424945443,580422,016144014100.50

* These groups have the same acreages and the same number of farms as in Table No. C. 1.

TABLE No. C.7-(Contd.)

Cuttack District: The purchase, sale, death, birth, etc. of different kinds of livestock on the sample farms, arranged by size in acres, (during the year and the number at the end of 1954-5)

	•	Death and disposal								l acquirin	8		Total .	No. at th the year	e end of
Groups*	Draug	ht cattle	Milci and	h cattle calves	Other 1	livestock	Total value	No. of draught	Milci and	h cattle calves	No. of other	Total value	Draught cattle	Milch cattle	Other livestock
	No.	Value	No.	Value	No.	Value		Curre	No.	Value	BVESIOCK			ana calves	
1	1	15	2	9	2		24-00		6	22	7	22.00	19	61	41
2	3	65	4	170	1	4 -00	239-00	-	· 8	5	3	5-00	77	95	24
3	3	90	3	45	1	2.50	137 - 50		12	_	5	-	78	9 9	34
4	1	20	1.	60	• 3	2.50	82 - 50		2	_		—	51	62	15
5			1	25	1	22 -00	47 -00		6	-	1		38	53	13
6			3	25 -	5	32 • 50	57 · 50		6		÷ 1		38	64	21
7	2	111	3	12	-		123 -00		2	_	1		32	33	18
8			6	40			40 -00	·	10			-	28	45	_
Total	10	301	23	386	13	63 • 50	750 • 50		52	27	18	27 -00	361	512	166

(Value in Rs.)

* These groups have the same acreages and the same number of farms as in Table No. C. 1.

E Cuttack District : Livestock produce and sale on sample farms classified by the size in acres (during 1954-5)

•			Milk		Milk Pro	oducts	Eggs	, etc.
Groups †	Total	produced	. To	otal sold	Total produced	Total sold	Total produced	Total sold
· :	Quantity in maunds	Value (in Rs.)	Quantity in maunds	Value (in Rs.)	(in Rs.)	(in Rs.)	(in Rs.)	(in Rs.)
i	9.09	186 • 75			1 • 25		13.75	11 .25
	• ,	(28 • 78 %)	:		(0 • 19%)	÷.	(2.12%)	(81 .82)*
2	64 • 44	1,035.00	38 • 70	626 • 62	194 . 50	146 .00	0.25	
		(46.01%)	•	(60·54%) *	(8.64%)	(75·06%) *	(0.01%)	-
3	20.30	366 • 75	7.31	132.50	103 - 25	42.50	8.12	
		(23·71%)		(36 • 13 %)*	(6·68%)	(41 ·16%) *	(0.53%)	
4	17 - 20	272.50			266.62	114.00	1.25	
	•	(22.25%)	•		(21.77%)	(42.76%)*	(0.10%)	
5	27 :63	438.50	3 - 33	56-50	33.50	18.62		
		(41.89%)		(12.88%)*	(3.20%)	(55.61%)*		
6	66 • 49	946 • 25	23.03	368.75	215.37	138.12	*	
-		(51.92%)		(38.97%)*	(11.82%)	(64 • 13 %)*	1	
7	13.02	230.00	· 3.00	60.00	101.00	16.00	13.50	9.37
·		(29.67%)	,	(26.09%)*	(13.03%)	(15.84%)*	(1.74%)	(69 48 %)*
8	58.73	733 •44	16.76	216.87	140.62	135.62		
		(54 • 56%)		(29 • 57 %)*	(10 • 46%)	(96·44%) *		
Total	276 •90	4,209 ·19 (39 ·49 %)	92 • 13	1,461 ·24 (34 ·72%)*	1,056 ·11 (9 ·91%)	610 ·86 (57 ·84%)*	36 · 87 (0 · 35 %)	20 •62 (55 •93 %)*

* Percentage shown below the sold value is the proportion of total produce of the particular commodity.

[†] These groups have the same acreages and the same number of farms as in Table No. C. 1.

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Farmyard manure Dung cakes Hides, etc. Total . . . Groups † Total Total Total Total Total Total Total Total Total produced sold produced sold produced sold produced sold Balance (in Rs.) 1 261.25 10.00 166-00 20-00 20.00 649.00 41.25 607 .75 (40·25%) (3·83%)* (25.58%) (3-08%) (100%)* (100%) (6·36%)* 543.25 25.00 2 477-00 2.250.00 797.62 1.452.38 (21.20%) (24.14%) (5.24%)* (100%) (35.45%)* 3 549.25 10.00 519.25 1,546.62 185-00 1,361.62 (35.51%) (1.82%)* (11-96%)* (33.57%)(100%) 373.50 311-00 1.224 .87 114-00 1,110.87 -----(30.49%) (25.39%) (100%) (9.31%)* 5 283.19 291.50 1.046 .69 75.12 971.57 (27.06%) (27.85%) (100%) (7.18%)* 383.75 277.00 7.50 1,822.37 1.308 -00 6 514.37 (2.71%)* (21.06%) (15.20%) (100%)(28·23%)* 252.37 178.25 775.12 85·37 689·75 7 (32.56%)(23.00%) (100%) (11-01%)* 186.81 283.50 7.50 1,344 .37 359-99 984 · 38 8 (13.89%) (21-09%) (2.65%)* (100%) (26·78*/)* Total 2.833.37 20.00 2.503.50 40.00 20.00 20.00 10.659-04 2.172.72 8.486.32 (26.58%) (0·71%)* (23.48%) (1.60,2)* (0·19%) (100%) (100%) (20.38%)

Cuttack District: Livestock produce and sale on sample farms classified by the size in acres (during 1954-5)

* Percentage shown below the sold value is the proportion of total produce of the particular commodity.

These groups have the same acreages and the same number of farms as in Table No. C. 1.

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Cuttack District: Value of farm implements, their sale and purchase on sample farms classified by size in acres (during 1954-5)

(Value in Rs.)

Groups*	Value of implements at the beginning of the year			Value of implements per farm	Value of implen chased during th	ents pur- ae year	Value of implements during the year	s sold Valu carde	e of implements dis- d as useless during the year
1		369		6.71	186 •94		0 .62		26 •94
2		971		14 •71	390 • 19	•		· .	58 - 19
3	· · ·	951		16 • 40	,436 ·00				67 • 50
4		777	•	28 • 78	224.00		•		31 • 81
5	•	703		37 •00	274 • 69		· - ·		37 • 87
6	*** **	863		50 -77	205 • 50		· _		59·00
7	 	833		75 • 73	152 - 25		0 • 75		48 ·75
· · · 8		302	•	43 ·14	74 • 12				2 •94
Total		5,769	<u>.</u>	22 • 19	1,943 •69	-	1.37	•	333.00

* These groups have the same acreages and the same number of farms as in Table No. C. 1.

Cuttack District: Investment and disinvestment on sample farms classified by size in acres (during 1954-5) Part I (Investment) (Value in Rs.)

Groups*	Total p	Total purchase of land		Purchase	Purchase	Total of	Construc	Purchase	Purchase	Repay-	Advancing	Total	Grand
	Area (acres)	Value (Rs.)	Improve- ments to land	oj live- stock	of imple- ments	columns 1 to 4	tion or purchase of houses	of orna- ments	of other financial assets	ments of debts	loans	of columns 6 to 10	total of all items
		1	2	3	4	5	6	7	8	9	10	11	12
1	0 -45	306 -00	22 -00	210 -00	186 ·9 4	724 •94	500 -00	138 -00	_	165 · 3 1		803 ·31	1,528 ·25
2	0 ·89]	503 ·00	22.50	1,411 -00	390 · 19	2,326 . 69	659 -00	418 ·25	·	487 -62	30 -00	1,594 ·87	3,921 -56
3	1 • 49 1	845 .00	106 •87	586 ·00	436 -00	1,973 ·87	1,590-00	213 - 50		1,206 • 69		3,010 • 19	4,984 -06
4	1 • 57	710 -00	94 · 5 0	211 -00	224 -00	1,239 .50	534 -00	350-00		218·75	_	1,102 .75	2,342 - 25
5	2 • 20	2,250 -00	64 •00	68 2 -0 0	274 •69	3,270 .69	700 -00	482 - 50		73 ·56	. —	1,256-06	4,526.75
6	0.02	150-00	370 -00	285 -00	205 - 50	1,010 • 50	250 -00	345 -00		910-00		1,505-00	2,515.50
7	0 • 28	250 -00	33 - 25	125 -00	152 ·25	560 - 50				10-50	_	10 - 50	571-00
8	_		36-00	70 -00	74 - 12	180 • 12	-	765 -00		200 -00		965-00	1,145 -12
Total	6 • 91	5,014 -00	749 ·12	3, 580 -00	1,943 •69	11,286 .81	4,233 -00	2,712 - 25		3,272 -43	30 -00	10,247 .68	21,534 -49

* These groups have the same acreages and the same number of farms as in Table No. C. 1.

TABLE NO. C.10—(Contd.)

Cuttack District: Investment and disinvestment on sample farms classified by size in acres (during 1954-5)

Part II (Disinvestment)

(Value in Rs.)

Groups*	Sale of land		~ ` ^	~		~			_				
	Area (acres)	Value (Rs.)	Sale of livestock	Sale of implement.	Total of s columns 1 to 3	Sale of houses	Sale of ornaments	Sale of other financial assets	Recovery of loans	• Other disinvest- ments	Incurring new debts	Total of columns 5 to 10	Grand total of all items
	1		2	3	4	5	[°] 6	7	8	9	10	11	12
1	0.12	60 ·00	302 ∙00	0.62	363 •12		50.00	-			1,365 • 50	1,415 • 50	1,778 .62
2	0 • 20	100 .00	610 ·00	_	710 ∙00		136 -00		220 · 00		1,655 •25	2,011 ·25	2,721 •25
3	0 •44	105 -00	895 · 00	_	1,090 •00				_	_	1,876 •00	1,876 •00	2, 966 •00
4	$0.34\frac{1}{2}$	770 •00	185 -00		95 5 ∙ 00	-			_	_	833 ·50	833 •50	1,788 •50
5	0 • 98	1,058 ·00	437 ·00		1,495 .00	. • •	—		-		990 · 00	990 ·00	2, 485 ·00
6	$0.52\frac{1}{2}$	175 •00	78 ∙00		253 ·00	-	_	. —			984 ·00	984 · 00	1,237 .00
7			10.00	0.75	10 • 75		<u> </u>				448 ∙00	448 ∙00	458 •75
8	0.30	400 •00		`	400 •00	—	_		_	· . ·	440 •00	4 40 ∙00	840 · 00
Total	2.91	2,758 •00	2,517 •50	1 •37	5,276 • 87	•	186 -00	<u> </u>	220.00		8,592 •25	8,998 ·25	14,275 •12

* These groups have the same acreages and the same number of farms as in Table No. C. 1.

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TABLE NO. C.10-(Contd.)

Cuttack District: Investment and disinvestment on sample farms classified by size in acres (during 1954-5)

(Value in Rs.) Part III (Investment and disinvestment) Groups* Total Net investnew debts disinvestinvestment investment disinvestinvestment repayment investments disinvestdisinvestment or in physical in houses in ornaments of debts ment in disinvestment ment in ment in incurred ments assets and others, physical houses ornaments of farm assets of and others, elc. farm etc. 1 724.94 500.00 138.00 165-31 1.528.25 363.12 50.00 1.365.50 1.778 .62 250.37 2 2,326.69 659.00 1.655 .25 2.721 .25 + 1.200.31448.25 487 · 62 3,921.56 710.00 356-00 1.973 .87 2,966 -00 + 2.018 -00 3 1,590.00 213.50 1.206.69 4.984 .06 1.090 -00 1.876-00 1.239.50 + 553.75 534.00 350.00 833-50 1.788.50 218.75 2.342.25 955-00 4 5 3.270.69 700.00 990-00 2.485 -00 + 2,041 - 75 482.50 73.56 4.526.75 1.495.00 1.010.50 1.237-00 + 1,278 .50 6 250.00 345.00 2,525.50 253-00 984-00 910-00 7 560.50 10.50 571.00 10.75 448.00 458.75 + 112.25 8 180.12 840-00 305.12 765.00 200.00 1.145.12 400.00 440.00 Total 11.286 - 81 4.233.00 2.742.25 3.272.43 21.534.49 5.275 .87 406-00 8.592.25 14.275 - 12 + 7.259.37

* These groups have the same acreages and the same number of farms as in Table No. C. 1.

+ Where the investment is more than disinvestment.

- Where the disinvestment is more than investment.

ECONOMICS OF ≻ **MULTI-PURPOS** Ē RIVER DAM

PURI

Puri: Of the twenty sample grids in the delta, seven were in Puri district. In all 140 farms selected as in Sambalpur and Cuttack were surveyed. The analysis that follows relates to these 140 farms and the data are for the year1954-5

Size of Holdings : Table No. P. 1 presents data regarding the area of owned, cultivated, etc. land on sample farms in Puri. The average size of cultivated holding was a little larger than in Cuttack, 3.68 acres. Nearly two-thirds of the cultivators, however, had less than four acres of land. Farmers with less than one, one to two and two to three acres were more or less the same in number and accounted for 55 per cent of the total. These, in short, were the more dominant size groups. The smaller cultivators (having less than four acres), however, cultivated only about one-third of the total cultivated land, whereas the bigger one-third of the cultivators cultivated the remaining two-thirds. Cultivators with more than ten acres of cultivated land each, cultivated over one-fifth of the total land.

Tenancy was more prevalent here than in the Cuttack – part of the delta. A little less than one-third of the total cultivated land was reported to be leased in, whereas hardly two per cent of the total owned land was leased out. Excepting the last two groups of biggest cultivators, most others had more than this proportion of their total cultivated land leased in.

In this connection one special feature of the region might be noted here. In Puri, joint cultivation was practised to a greater extent than in the other two regions. For a particular plot of land a number of cultivators came together and put in the labour and incurred expenses proportionately and shared the produce in the same proportion. Therefore, one farmer may be a partner with a varying number of other farmers for different plots and he might be jointly cultivating with them. For the purpose of analysis here all plots of land, in which the sample cultivator had any share in cultivation were considered as part of his cultivated holding and the expenses contributed by the other partners were included in costs while their receipts were included in the rent payments of sample farmers.

Family Members: Table No. P. 2 gives a classification of the members of the sample farm families by age, sex and occupation. The average size of farm family was reported to be $5 \cdot 5$. Generally speaking, the size of family increased with increase in the size of the farm.

The proportion of earners to total family members went on diminishing as the size of holding increased. This was mainly due to the rapid decline in the number of female earners with an increase in the size of the farm.

Most of the earners were full-time workers either in agriculture or in casual labour. The proportion of workers working on their own farms (or on their own) increased as the size of the farm increased. And the proportion reporting wage employment as the main occupation decreased as farm size increased. The proportion of earners with subsidiary occupations to total earners generally decreased as the size of the farm increased.

Very few migrants to outside places for work during the year were reported.

Land Utilization : All land held for cultivation was not cropped during the year. Fallow land, however, accounted for only two per cent of the total (Table No. P. 3).

About 65 per cent of the gross cropped area was reported to be under paddy, about six per cent under *Beali* paddy and the rest under *Sarad* (Table No. P. 4). Pulses were next in importance, occupying about 20 per cent of the gross cropped area. *mug* and *kulthi* were the main pulses. Though the acreage under potato and sugarcane, as also vegetables, was very small, almost every size-group reported some land under these crops. Orchard crops like coconut and *pan* (betel leaf) were grown to a considerable extent in the coastal areas of Puri. The area under these accounted for less than one per cent of the gross cropped area. Most of the area under coconut was reported by the bigger cultivators. Nearly 31 per cent of the gross cropped area was cropped more than once. Most of this land was put under pulses which were grown as catch crops on paddy land after paddy was harvested.

There was no canal irrigation in this region. The total area irrigated constituted about 2.85 per cent of the net cultivated area. All this was through lift irrigation, wells and streams or rivers being the sources of supply. Though all crops like potato, sugarcane, vegetables, *pan*, etc. were irrigated they occupied only one – third of the total irrigated area. The rest of the gross irrigated area was put under paddy.

Assets: The average value of farm assets, taking land, livestock, farm implements and shares in co-operative societies, etc. into account, was reported to be about Rs. 1276 per farm (Tables No. P. 5 and P.6). Nearly 80 per cent of this was owned land, about 10 per cent livestock and the remaining farm implements and other assets. The value of livestock and implements per farm went on increasing as the size of holding increased indicating the larger requirement of both these with increasing farm size. But cattle or implements per cultivated acre decreased as the size of holding became larger. This was, however, up to a point only. Holdings with seven acres or more of land again showed an increased stock of cattle and implements.

The farmers had certain liabilities too. The total outstanding debt summed these up. Comparing the two figures we find that outstanding debt was only about eight per cent of the total value of farm assets.

Land values in Puri were reportedly lower than in Cuttack. The value of land per acre was put at Rs. 430 in Puri as against about Rs. 530 in Cuttack. The greater pressure on land in Cuttack, the greater liability of lands to floods in Puri, etc. might to a certain extent account for this. The average value of a residential house was put at Rs. 544 only.

Livestock : The average value of livestock owned per family was Rs. 412 (Table No. P. 7). Most of this was on account of bullocks which were the highest priced animals. Leaving the young ones aside, there were more bullocks

than cows with the farmers. The average value of a bullock was put at Rs. 54 whereas the average value of a cow was a little over Rs. 21 only, and that of a calf between Rs. 12 and Rs. 13.

The bigger cultivators had more bullocks and cows per farm. On the other hand, the number of bullocks per acre of cultivated land went on diminishing as the size of cultivated holding increased, illustrating the nature of the economic overhead. The cultivators with less than four acres of land, had less than a pair of bullocks on an average. Indeed only 36 of them had a pair or more, 36 had only one and 21 farms had no bullocks at all. None of the bigger cultivators were without bullocks.

Most of the bullocks were 'purchased', the purchased bullocks accounting for 90 per cent of the total (Table No. P. 7). The reason for this extraordinarily high rate of purchase was the same as in Cuttack. It is, however, difficult to know how many were real purchases and how may essentially exchanges with others. During the year, 15 bullocks were sold and 8 died, whereas 25 were reported as purchased. The sales as well as purchases mostly took place during the *rabi* season (roughly January to June) which was for this region an off season for agriculture. Most of the purchases as also sales were reported by the smaller cultivators. The average purchase value of a bullock was about Rs. 65 whereas the average sale value was reported to be Rs. 35 only. There was also some sale and purchase of milch cattle, 10 purchased and eight sold. The purchases, however, equalled sales, dead ones being mostly replaced through births.

The number of bullocks purchased constituted about 11 per cent of the total number of bullocks. The value of these purchases formed about eight per cent of the total reported value of bullocks.

Receipts from Livestock : The farmers, besides using the farm bullocks for work on farm, got milk, eggs, etc. from other livestock. Table No. P. 8 indicates that farmyard manure and dungcakes accounted for three-fourths of the total value of livestock products. Milk and milk products accounted for the rest. Dungcakes were used entirely as fuel for domestic use, and only about 10 per cent of the farmyard manure was sold, the rest being used on the farm itself. On the other hand, nearly 40 per cent of milk and milk products were sold. The smaller cultivators sold a larger part of the milk, the larger ones consuming the bulk at home. Only about 10 per cent of the total livestock produce was marketed.

It would, however, be incorrect to maintain that the milch cattle was maintained for 'dairy business'. The average yield of milk per cow during the year was reported to be about $22 \cdot 4$ seers only. The feed and fodder expenses on milch cattle were equally ridiculously low. The average expenses per cow (including calves) came to Rs. 4 per annum (or if we assume the expenditure on account of the calves to be nil it came to Rs. 7 per annum). It is no wonder an average cow cost only Rs. 22-23. The cows were there because keeping them cost practically nothing and farmers got a little milk, besides farmyard manure.
Farm Implements: The average value of farm implements per farm was Rs. 43.5 only (Table No. P. 9). The annual purchases of farm implements per farm were reported to be about Rs. 6 only. This constituted 14 per cent of the total value of implements. This sum might be considered as the cost of depreciation since there was hardly any new addition, and most expenses were incurred for replacements.

Investment and Disinvestment: Table No. P. 10 presents data regarding the investment and disinvestment on sample farms in Puri in 1954-5. A little less than half the total investment into physical assets of the farm was in land. Nearly a fifth of the total amount was in making improvements in the land and the remaining in the purchase of land which was more a transfer expenditure than an investment for the region as a whole. About 32 per cent of the remaining investment was on implements and the rest on livestock.

Sale of land, livestock or implements was less than the purchase of these items. And consequently there was a net investment of over Rs. 3800 on the whole. This, however, could not be considered as net investment in the sense of net additions to capital assets. In case of purchase or sale of land as we saw, it is a transfer expense. In the case of expenditure on implements or livestock it was more likely to be replacement expenditure.

If one adds investment and disinvestment expenses on household account, like construction, etc. of houses or purchase or sale of ornaments, the net investment by the farmers appears larger than before. But the same difficulty can be raised with regard to house construction. It was not clear how much of it was major repair and replacement expenditure and how much of it net addition to this asset in the region.

When financial investment and disinvestment items like repayments and borrowings were taken into account, the net investment figure becomes negligible.

It, therefore, appears that there was hardly any investment activity here worth the name.

TABLE NO. P.1

Puri District: Distribution of sample farms according to area (in acres) cultivated, owned, etc., (during 1954-5)

			Fa	arms			Cultive	ated area				Total of	wned area	A
6	. ·			04 - 6	.7	otal –	(Dwned	Lee	used in	- Average size	?		– Average land
Groups	Area		No.	% of the total	l Area	% of the total	Area	% of the net cultivated	Area	% of the net cultivated	- cultivat ed hold- ing d	- Area	Out of this lea- sed out	revenue payable per acre (Rs.)
1	Less than 1 00		26	18 • 57	16.04	3 •12	8.04	50 • 12	8 -00	49 · 88	0.62	9 •08	1 •04	2 ·30 `
2	1 to 1 .99		28	20.00	41 ·70	8 ·10	31 ·74	76 ·12	9 • 96	23 .88	1 •49	32 ∙ 20	0 • 46	.2.84-
3	2 to 2 •99		23	16.43	55 .81	1 0 · 85	32.55	58 ·32	23 ·26	41 .68	2 • 43	37 •94	5 • 39	2.57
4	3 to 3 •99		16	11 •43	54 ·88	10 •67	32 -98	60 ·10	21 ·90	39 [.] 90	3 •43	33 · 23	0·25	1 •86
5	4 to 4 •99		14	10.00	60 ·49	11 •76	28 .02	46 ·32	32 •47	53 .68	4 ∙ 32	28 ·02	-	1 • 81
6	5 to 6 99		13	9 • 29	76 - 76	14 •92	51 •41	66 ·98	25 • 35	33 •02	5 •90	51 • 41		2 • 41
7	7 to 9 •99		12	8·57	99 ·22	19 - 28	69 •89	70 -44	29 • 33	29.56	8 ·27	70 .89	1.00	2 • 98
8	10 and above		8	5 •71	109 •64	21 •30	• 93 •3 1	85 ·11	16.33	14 • 89	13 •71	97 · 48	4 •17	1 •99
		Total	140	100%	514 • 54	100%	347 •94	67 •62	166 •60	32 - 38	3 •68	360 • 25	12.31	2.36

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TABLE NO. P.2

Puri District: Distribution of members of sample farm families by sex, age, main and subsidiary occupation, classified by the size of the cultivated holdings of the families.

Groups	Fa	mily meml	bers	Male m	embers	Female	members	Male d	earners	Female	earners		Total e	urners
Groups	Male	Female	Total	Adult	Non- Adult	Adult	Non- Adult	Adult	Non- Adult	Adult	Non- Adult	Male	Female	Total
1	56	60	116	35	21	43	17	33	5	15		38	15	53
2	55	57	112	36	19	42	15	35	-	7		35	7	42
3	53	53	106	35	18	37	16	30	3	6	1	33	7	40
4	48	46	94	30	18	34	- 12	30	1	4	_	31	4	35
5	35	41	76	26	9	29	12	26	1	2		27	2	29
6	45	37	82	31	14	31	6	28		2	-	28	2	30
7	40	50	90	30	10	34	16	25			-	25		25
8	47	42	89	28	19	30	12	25	-			25	-	25
Total	379	386	765	251	128	280	106	232	10	36	1	242	37	279

* These groups have the same acreages and the same number of farms as in Table No. P.1.

TABLE NO. P.2—(Contd.)

Puri District: Distribution of members of sample farm families by sex, age, main and subsidiary occupation, classified by the size of the cultivated holdings of the families.

		Ì	Male adu	lt earners	' occupati	ons		Female a	dult earne	rs' occupa	ations	Non-adul	lt earners' oc	cupations
~ *		Agric	ulture	Lat	our	Other	Agric	ulture	Lab	our	Other	Agriculture	Labour	Other
sroups+		Full- time	Part- time	Agricul- ture	Non- agricul- ture	tions	Full- time	Part- time	Agricul- ture	Non- agricul- ture	occupations			occupations
1		8	1	19	2	3	_	1.	6	1	7	_		3
2		15	1	10	. —	9		1	1	-	5	_	—	
3		21	1	2		6		3		_	3	1	1	2
4		· 21	1	3		6		·	1		3	1		2
5		24	2	2			2	_	_	_	·			1
6		25	—	. 		2	· · · · · ·				—	-		. —
7		15		_	_	8	·	·	· .		2		·	
8		22				.3	· .				•			·
.		-	•		· · · · ·					54		·		
	Total	151	6	36	2	37	2	. .	8	1	20	2	1	8

* These groups have the same acreages and the same number of farms as in Table No. P.1.

APPENDIX II

TABLE NO. P.2-(Contd.)

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Puri District: Distribution of members of sample farm families by sex, age, main and subsidiary occupation, classified by the size of the cultivated holdings of the families.

Groups*	1	Male adult ea subsidiary occ	rners with cupations	•	1	Female adult ed subsidiary occ	arners with cupations		Number of	Number of
Groups*	Agriculture	La	bour	Other	Agriculture	Lab	our	Other	for work	farm
	· · · ·	Agriculture	Non- Agriculture	occupations		Agriculture	Non- Agriculture	- occupations	auring the part of the year	servants
1	23	5		·	1	_		_	_	
2	15	7 ·		8	_	_	- .	1	1	- }
3	6	15		3	_	_	_	-		2
4	6	13		3	_			_	1	1
5	2	13			_	2		-		1
6	2	8		5	·					3
7	5	5	-	2				-		6
8	1		3	<u> </u>	·		<u> </u>	_		9
,	Total 60	66	3	. 21	1	2		1	2	22

* These groups have the same acreages and the same number of farms as in Table No. P.1.

TABLE NO. P.3

PuriDistrict: Reported reasons for the cultivated land (area in acres) in the sample remaining fallow (during 1954-5)

Groups*	Total fallow	,			• Reaso	ns for fallow				
		Due to sca- sonal vagaries	Lack of money	Ditch or pool etc.	Sandy	High and stony	Low land	Others	Reasons not stated	
1	0 • 14				_	·	·		0 • 14	
2	0.56		_	0.03		0 • 14		0.23	0 • 16	1
3	2.13	0 •40	0.18	0.06	-	0.19		- - -	1 •30	
4	1 •43	,				· 🗕 🔪	~	— ."	1 •43	
3	1.45	· · ·		0.04			• • • •	, • • 	1 •41	
6	2.69		<u> </u>	0.05	0.12	<u> </u>		0.12	2 •40	
7.	0 •91	<u> </u>		0.15	- -	•	· •	0.35	0 • 41	•
8	4 • 23	tin and the second s		0 -08	2.11		0 • 32		1 •72	
Tota	1 13 • 54	0 •40	0.18	0 • 41	2.23	0.33	0 • 32	0.70	8 •97	

*These groups have the same acreages and the same number of farms as in Table No. P.1.

TABLE NO. P.4

Puri District: Distribution of the net cultivated area in the sample farms classified by the size (area in acres) of their cultivated holdings under different crops (during 1954-5)

Groups*	Beali paddy	Sarad paddy	Other cereals	Total cereals	Green gram	Black gram	Kulthi	Chana	Total pulses and grams	Oil seeds and condi- ments and spices	Sugar- cane	Potato
1	1 •64	13 •93		15 • 57	3 .88	1 • 25	2.81	0 . 17	8 • 11		0.06	_
2	4.56	35.96		40 • 52	9.89	2 • 29	6 ·27		18 - 45	0.17	0.55	0 - 21
3	5.82	47 ·12	-	52 •94	12 • 34	1 •45	8 .85		22 .64	0 -64		0 · 32
4	5.69	45·57	0.60	51 -86	12 .68	3 -01	8 •04		23.73	0.14	0.32	0 • 14
5	7 • 45	51 •10	0 • 18	58 •73	14 - 15	4 ·29 1	12 • 49	- يوغلونيه	30 -93]	2·10]	0-08	0 •43
6	3 • 71	68 •04		71 •75	7 •83	1 •70 ¹ / ₂	11 -98	0-04	21 • 55]	2 ·90 1	-	0 -06
7	7 -46	89 · 26	 .	96 ·72	29 •47	6 • 70	15 - 48	—	51 -65	0.11		-
8	12 - 29	89 • 75	0 • 25	102 - 29	20 - 43	4 •70	14 • 51		39 - 64	-	0 •24	1 •21
Total	48 .62	440 ·73	1-03	490 ·38	110 .67	25 • 40	80 • 43	0 - 21	216 • 71	6 -07	1 •25	2 . 37

* These groups have the same acreages and the same number of farms as in Table No. P.1.

TABLE NO. P.4—(Contd.)

Puri District: Distribution of the net cultivated area under different crops in the sample farms classified by size (area in acres) during 1954-5

~ +		-			~	*** **			Area irrigat current	ed during the year
Groups+	Vegetables	Pan groves	Total	Orchards and others	Gross crop- ped area	Fallow	Area cropped more than once	Net culti vated area	Net	Gross
1	0 • 11	 .	23 .85		23 •85	0.14	7 •95	16.04	0 • 17	0.17
2	0.32	0.04	<u>60 • 26</u>	0.03	60 •29	0.56	19 - 15	41 •70	1 •71	1.71
3	0.07		76 •61	0.35	76 •96	2 • 13	23 · 2 8	55 - 81	0 •61	1 .03
4	 ———————————————————————————————————		76 • 19	0 ·27	76 • 46	1.43	23 •01	54 • 88	0 •98	1 •26
5	0-23	-	92 • 51	• ••••	92 - 51	1 •45	33 •47	60 ·49	2.12	2 •41
6	0 •08		96·35	1.68	98 •03	2.69	23 •96	76 · 76	0.65	0.65
7		0.43	148 •91	, 1.05	149 -96	0.91	51 -65	99 ·22	3 •10	3 •10 ′
8	0 •40		143 •78	3.00	146 • 78	4.23	41 •37	109 •64	5.34	5-34
Total	1 • 21	0 • 47	718 ·46	6.38	724 •84	13 • 54	223 •84	514 • 54	14 •68	15.67

*These groups have the same acreages and the same number of farms as in Table No. P.1.

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•						Par	t I					(<i>V</i>	alue in Rs.)
Groups	1 4		Farm asse	ts .	•	1	0	ther assets			Crand	Outstand	ling debts
i i	Area .	Land Value	Value of . -implements	Value of livestock	• Total value	Value of homestead land	Value of houses	Value of non-farm implements	Other financial assets	Total value	total of assets (value)	Value	Per cent of farm assets
1	9.08	3,846 (70 · 39 °/)	320 (5:86*/)	1,298	· 5,464		5,205		<u></u>	5,496	10,960	2,119	38 • 78
2	32.20	13,552	492 ⁵	1,877	· 15,921	- 135	9,330	76	15	9,556	25,477	1,717	10 -78
3	37.94		748 (4-27•/)	1,830	17,132	518	8,830	68	400	9,816	26,948	1,918	11/20
4	33 ·23	11,809	575	2,270	14,654	751	7,110			7,861	22,515	1,068	7 • 29
5	28-02	(80 °59 / 5) 10,459	572 (1.40°/)	(13·49/) 1,725 (12·52*/)	12,756	515	5,700	20	· —	6,235	18,991	2,068	16-21
6	51-41	18,112	(4·49/2) 859	2,186	21,157	534	9,105		32	9,671	30,828	825	3 -90
7*	70 .89	31,589	1,433	2,936	35,958	1,210	15,750	•		16,960	52,918	2,952	8 - 21
8	97 •48	(87.85%) 50,938 (92.25%)	(3, 66. c) 1,090 (1,98 %)	(8 · 16 %) 3,187 (5 · 77 %)	(100%) 55,215 (100%)	5,898	15,150			21,048	76,263	2,749	4 -98
Total	360 • 25	154,859 (86·87%)	6,089 (3·42%)	17,309 (9·71%)	178,257	9,852	76,180	164	447	86,643	2,64,900	15,416	8.62

* These groups have the same acreages and the same number of farms as in Table No. P.1. ς.

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TABLE NO. P.5-(Contd.)

Puri District: Total farm and other assets and outstanding debts during 1954-5 of sample cultivators classified by size (area in acres) of their cultivated holdings (Value in Rs.)

	• .	-	Farm assets				. (Othe <mark>r</mark> assets				Outstand	ling debts
Groups*	L	and	Value of	Value of	Total	Value of	Value of	Value of	Other	Total	Grand - Total of	Value	% of farm
	Area	Value	Implements	liveslock	vaiue	land	nouses	implements	assets	value	assets (value)		assers
· · · · · · · · · · · · · · · · · · ·		· · · · ·	· · ·	•			····			· · ·		· · ·	· · · · · · · · · · · · · · · · · · ·
1	0.35	147 •92	12.31	49 • 92	210 • 15	11 •20	200 • 19	·		211 • 39	421 • 54	81 •50	38 • 78
2	1.15	484 •00	17 - 57	67 ·04	568 -61	4.82	333 ·21	2 • 71	0 • 54	. 341 ·28	909 •89	61 ·32	10 • 78
3	1 .65	632 • 78	32 • 52	79 - 57	744 .87	22 - 52	383 -91	2.96	17 •39	⁻ 426 •78	1,171 -65	83 ·39	11 .20
4	2.08	738 06	35.94	141 .88	915 88	46 • 94	444 ·37`		·	491 •31	1,407 •19	66 ·75	7 •29
5	2.00	747 •07	40 • 86	123 ·21	911 ·14	36.79	407 ·14	1 •43		445 ·36	1,356 • 50	147 • 71	16 - 21
6	3.95	1,393 •23	66 • 08	168 .15	1,627 •46	41 ·08	700 .38	· · · · · · · · ·	246	743 •92	2,371 • 38	63 • 46	3 • 90
7	5 •91	2,632 •41-	119 -42	244 .67	2,996 • 50	100 .83	1,312 .50	••		1,413 -33	4,409 .83	246 .00	8 ·21
8	12 • 19	6,367 ·25	136 • 25	398 ·38	6,901 ·88	737 - 25	1,893 •75	«: 	іх і́с ———	2,631 .00	9,532 •88	343 .63	4 98
anto a contra inter-							· _ * •						
Total	2-57	1,106 • 13	43 • 49	.123 .64	1 , 273 •26	70 ·37	544 ·15	1 •17	3 •19	618 .88	1,892 •14 •	110-11	8 •65

Part II (Per farm)

* These groups have the same acreages and the same number of farms as in Table No. P.I.

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APPENDIX-II:

TABLE NO. P.6

Puri District: The number and value of different kinds of livestock at the beginning of 1954-5 on the sample farms classified by size (area in acres)

						Part 1						(Value in Rs.)
Groups	Drau	ght cattle	Milc	h cattle	C	alves	Value of	Total	Number	of families	with drau	ght animal
	No.	Value	No.	Value	No.	Value	ivestock	livestock	Nil	One	Two	More than two
1	20	726	11	277	12	175	120	1,298	12	10	2	2
2	27	930	20	422	13	184	341	1,877	6	17	5	
3	37	1,363	14	184	16	209	74	1,830	3	5	14	1
4	29	1,697	17	400	13	131	42	2,270	_	4	11	1
5	28	1,345	8	177	14	198	5	1,725	-	3	8	3
6	28	1,505	24	511	12	132	38	2,186	—		11	2
7	27	2,132	26	621	15	177	6	2,936		1	8	3
8	27	2,220	28	536	25	301	130	3,187			2	6
Total	223	11,918	148	3,128	120	1,507	756	17,309	21	40	61	18

* These groups have the same acreages and the same number of farms as in Table No. P.1.

ECONOMICS OF A MULTI-PURPOSE RIVER DAM

TABLE NO. P.6—(Contd.)

Puri District: The number and value of different kinds of livestock at the beginning of 1954-5 on the sample farms classified by size (area in acres)

		Pa	art II—(Per farm, pe	· acre)		•
		Per farm	· .	Per acre	of net cultivated area	
Jroups+	Draught cattle	Milch cattle	Other livestock	Draught cattle	Milch cattle	Other livestock
· · · · · · · · · · · · · · · · · · ·	· · ·				[_] ,	
1	0.69	1.04	0.81	1 •12	1 •68	1 •31
2	1.04	1 • 11	1 •29	0.70	0 •74	0.86
3	1 •61	1.35	0 •65	0.66	0.56	0.27
4	1 •88	1 •81	0 •94	0.55	0.53	0 • 27
5	2.00	1 •64	0 • 21	0 •46	0.38	0.05
6	2.15	2.85	1.00	0.36	0 • 48	0.17
7	2.33	3 • 83	0 •42	0 • 28	0 •46	0.05
8	3 •38	7 • 13	2.00	0.25	0.52	0.15
Total	1.61	2.01	0.89	⁻ 0 •44	0.55	0 •24

* These groups have the same acreages and the same number of farms as in Table No. P.1.

TABLE NO. P.7

Puri District: The purchase, sale, death, birth, etc. of different kinds of livestock on the sample farms, arranged by size in acres, during and at the end of 1954-5 (Value in Rs.)

-	Purch	ase			Sale	•		Ð	eat h and d i	sposal	•	Birti acqu	h and iring	Total no the end of year	. at the
Groups	Draught cattle Milch cattle and	caives Other livestock	Total value	Draught cattle	Milch cattle and calves	Other livestock	Total value	Draught cattle	Milch cattle and calves	Other livestock	lue	traught cattle	other livestock	t cattle attle and calves	vestock .
	No. Value No.	Value No. Value		No. Value	No. Value	No. Value	-	No. Value	No. Value	No. Value	Total va	No. of a	No. of	Draugh Milch c	Other li
1 2 3 4 5 6 7 8	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	159 -00 216 -50 138 -00 478 -00 87 -00 288 -00 272 -00 280 -00	$ \begin{array}{r} 1 & 25 \\ 3 & 75 \\ 1 & 25 \\ 5 & 345 \\ \hline 4 & 47 \\ \hline 1 & 7 \\ \end{array} $	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		70 -00 95 -50 95 -00 445 -00 39 -00 47 -00 40 -00 7 -00	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	8 3 25 	53 -00 60 -25 60 -00 50 -00 		5 2 9 1 1 - 2 2 - 1 6 2 7 -	18 27 29 31 37 31 30 29 28 23 28 37 30 44 27 57	21 36 15 15 3 13 5 16
	25 1,613 10	305 1 0 . 50	1,918 ·50	15 524	8 312	1 2.50	838 • 50	8 145	14 172-50	0 14 51·25	368 • 75	- 2	5 16	227 279	124

* These groups have the same acreages and the same number of farms as in Table No. P.1.

ECONOMICS OF A MULTI-PURPOSE RIVER DAM

		- 1	Milk	·	Milk pi	roducts	Eggs, e	etc.
Groups*	Total	produced	7	Fotal sold	Total	Total	Total produced	Total
	Quantity in mds.	Value ⁺	Quantity in mds.	Value	value	value	value	value
1	1 .80	36.00	1.00	20.00	9.00	4.00		<u> </u>
2	23 • 63	(8 ·74%) 391 ·69	12.15	(55·56%)† 219+75	(2·18%) 8·00	(44 ·44 %)† 8 ·00	5.94	<u>Ca</u> ll Col
3	4.33	(39.82%) 86.50 (12.71%)	3 • 93	(56·10%)† 78·50 (90·75°⁄)+	(0.81%)	(100%)†	(0.60%) 6.44	4.37
4	11.53	$(12 \cdot 17)$ $188 \cdot 75$ $(25 \cdot 84\%)$	5.33	86·25 (45·70%)			(0,937%)	(07 80 / ₀) —
5	1 •93	38 · 50 (8 · 11 %)			• ·			1 1 1 1 1
6	2.83	56 ·62 (8 ·86%)	n de la composition de Composition de la composition de la comp	ے ****	16 00 (2 ·50 %)		6 • 25 (0 • 98 %)	<u></u>
7	13 •95	231 ·56 (27 ·24%)	• • • • • • • • • • • • • • • • • • •		_		10 ·44 (1 ·23 %)	<u></u>
8	23 • 15	370 • 81 (34 • 86%)	9-85	147 ·69 (52 ·24 %)			ال معرفة المعرفة المعرف المعرفة المعرفة المعرفة المعرفة المعرفة	50 M 40
Total	83 • 15	1,400 ·43 (24 ·00 %)	32 • 26	552 ·19 (39 ·43 %)†	33 ·00 (0 ·57 %)	12 ·00 (36 ·36%)†	29 •07 (0 •50%)	·4 ·37 (15 ·03 %)†

* These groups have the same acreages and the same number of farms as in Table No. P.1.

† Percentage shown below the sold value is the proportion of total produce of the particular commodity.

+ Value is in Rs.

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APPENDIX II

TABLE NO. P.8-(Contd.)

	Farmyar	d manur e	Dung	cakes		Total	
Groups*	Total produced value	Total sold value	Total produced value	Total sold value	Total produced value	Total sold value	Total balance value
1	215-00		152-00		412-00	24 -00	388-00
	(52.19%)		(36.89%)		(100 %)	(5-83%)†	
2	388-00	18-00	190-00		983 -63	245.75	737 ·88
	(39 • 45 %)	(4·64%)t	(19.32%)		(100%)	(24 - 98 %)†	
3	392.00	9.00	195.75	-	680 .69	91 .87	588 ·82
-	(57.59%)	(2.30%)†	(28.75%)		(100%)	(13.50%)†	
4	374 .50		167.12		730.37	86.25	644 ·12
•	(51.28%)		(22.88 %)		(100%)	(11.81%)	
5	307.50		128.50		474 - 50	_	474 - 50
-	(64.80%)	·	(27 -09 */)		(100%)	•	
6	328.00		232.50	9-00	639 .37	9 -00	630 · 37
-	(51.30%)		(36.36%)	(3.87%)†	(100 %)	(1-41%)	
7	413.50		194.50		850-00		850-00
•	(48.65%)		(22.88 %)		(100 %)		
8	468-00	26 -00	225-00		1.063 -81	173 -69	890-12
-	(43 -99 %)	(5.56%)†	(21.15%)	•	(100%)	(16-33%)†	
Total	2,886 •50	53 -00	1,485 • 37	9.00	5,834 -37	630 · 56	5,203 .81
	(49 . 47 %)	(1.84%)	(25 - 46 %)	(0.61%)	(100%)	(10.81%)†	

Puri District: Livestock produce and sale on sample farms classified by size (in acres) during 1954-5

* These groups have the same acreages and the same number of farms as in Table No. P.1.

† Percentage shown below the sold value is the proportion of total produce of the particular commodity.

Puri District: Value of farm implements, their sale and purchase on sample farms classified by size (in acres), during 1954-5

(Value in Rs.)

Groups*	Value of implements at the beginning of the year	Value of implements per farm	Value of implements pur- chased during the year	Value of implements sold during the year	Value of implements dis- carded as useless during the year
1	320	12.21	52.56		14.25
2	492	17.57	94 • 87		12.37
- 3	748	32.52	111 -50	22.00	30 • 44
4	575	35 •94	100 • 12		24 • 31
5	' 572	40 • 86	48-06		29 • 44
6	859	66 •08	127 •94	2.81	56.81
7	1,433	119 •42	50 - 75	· <u></u>	13.56
8	1,090	136 • 25	301 • 50		53.00
Total	6,089	43 • 49	888 ·30	24 • 81	234 ·1 8

APPENDIX

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TABLE NO. P.10

Puri District : Investment and disinvestment on sample farms classified by size (in acres) during 1954-5

Part I-(Investment)

Groups*	Total pu I	urchase of and	Permanent improve-	Purchase of live-	Purchase of imple-	Total of columns	Construc- tion or	Purchase of orna-	Purchase of other	Repay- ments of	Advancing loans	Total of columns	Grand total of all items
	Area (Acres	Value)	land	31062	ment3	1 10 4	of houses	<i>ments</i>	asset s	42013		070 10	,
		1	2	3	4	5	6	7	8	9	10	11	.12
1	0.04	50.00) —	159-00	53 • 56	262 ·56	210 .75	-		133 -62	_	344 ·37	606 •93
2	1.83	820 ·75	45-00	216.50	94 ·87	1,177 -12	20 -00		-	560 •69	-	580 -69	1,757 -81
3	0 • 50	308 -00	24.50	138-00	111 -50	582 -00		257-00		363 · 19	100-00	720 ·19	1,302 • 19
4	0.33	90 -00) —	478 -00	100 - 12	668 ·12	200 -00	251 ·25		130-00	_	581 ·25	1,249 • 37
5	0.15	82 -00	10-00	87 -00	48 -06	227 -06	656 -00	340-00		437-00	—	1,433 -00	1,660 -06
6			73 •69	288 -00	127 ·94	4 89 • 63	980-00	60-00		245 ·37	100-00	1,385 •37	1,875-00
ŕ	0 -40	120 -00	321-00	272 -00	50 ·75	763 • 75		50 -00		2 16 <i>·</i> 94		266 -94	1,030 -69
8	1 -00	800 -00	198 ·00	280 -00	301 -50	1,579 •50	100 -00	340 -00	-	673 ·25		1,113 -25	2,692 •75
Total	4.25	2,270 •75	672 - 19	1,918 •50	888 ·30	5,749 •74	2,166 • 75	1,298 -25		2,760 -06	200 -00	6,425 -06	12,174 -80

* These groups have the same acreages and the same number of farms as in Table No. P. 1.

ECONOMICS OF A MULTI-PURPOSE RIVER DAM

(Value in Rs.)

TABLE NO. P.10-(Contd.)

Puri District : Investment and disinvestment on sample farms classified by size (in acres) during 1954-5 Part II-(Disinvestment) (Value in Rs.)

Groupe*		Sale	of land	Sale of	Sale of	Total of	Sale of houses	Sale of	Sale of	Recovery	Other disinvest-	Incurring	Total of	Grand total
Groups	2	Area Acres)	Value Rs.	<i>inconcer</i>		1 to 3	nouses	or numerals	financial assets	oj iouno	ments	debts	5 <i>to</i> 10	oj un nems
			1	2	3	4	5	6	7	8	9	10	11	12
						50 00		1.00.00				874 01	742 21	010 21
I		. —		70.00		70.00		169.00			<u> </u>	5/4.31	/43 • 31	813.31
2		0 ∙4 2	300 •00 ·	95 ·00		395 ∙50	_	20 -00		<u></u>	150 .00	1,115 • 75	1,285 •75	1,681 •25
3				95 •00	22 -0	117 -00	<u> </u>	171 •37		1 00 -00		827 •06	1,098 •43	1,215 •43
· 4		0 •02	50 -00	445 ·0 0	- .	495 ∙00	—	14 ·00	_	•		1,208 - 87	1,222 -87	1,717 ·87
. 5		_		39 ·0 0		39 ·00		18 ·00				1,279 •56	1 ,297 ·56	1,33 6 •56
⁻ 6			_	47 ·00	2.81	49 •81	-	_	_	-	_	608 ·62	608 ·62	658 ·43
· 7	·	0 • 51	300 -00	40 •00		340 •00				_		1,001 •37	1,001 •37	1,341 •37
8		0.90	400 ∙00	7 •00	_	407 -00	·			. —	,	2,223 •25	2,223 -25	2,630 ·25
Total	,	1 •85	1,050 00	838 •50	24 • 81	1,913 -31	_	392 · 37		100 .00	150 .00	8,838 ·79	9,481 •16	11,394 •47

* These groups have the same acreages and the same number of farms as in Table No. P. 1.

APPENDIX II

TABLE NO. P.10—(Contd.)

Puri District: Investment and disinvestment on sample farms classified by size (in acres) during 1954-5 Part III-(Investment and disinvestment) (Value in Rs.)

Groups*	Total investment in physical assets of farms	Total investment in houses	Total investment in ornament and others, etc.	Total repayment s of debts	Total investments	Total disinvest- ment in physical assets of farm	Total disinvest- ment in houses	Total disinvest- ment in ornaments and others, etc.	Total new debts incurred	Total disinvest- ments	Net invest • ment or disinvest- ment
1	262 . 56	210.75		133 -62	606 ·93	70 -00		169 -00	574 - 31	813 <i>-</i> 31	-206.38
2	1,177 .12	20-00		560 -69	1,757 -81	395 - 50		170 -00	1,115.75	1,681 -25	+ 76.56
3	582 ·00		357-00	363 - 19	1,302 • 19	117 -00	-	271 - 37	827 -06	. 1,215 •43	+ 86 • 76
4	668 ·12	200-00	251 - 25	130 -00	1,249 •37	495-00		14-00	1,208 - 87	1,717 -87	~468 ·50
5	227 -06	656 -00	340 -00	437 -00	1,660 -06	39 -00		18-00	1,279 • 56	1,336 • 56	+323.50
6	489 •63	980 ·00	160 -00	245 ·37	1,875 -00	49 - 81			608 ·62	658 ·43	+1216 -75
7	763 •7 5		50 -00	216-94	1,030 •69	340 -00			1,001 -37	1,341 -37	-310-68
8	1,579 •50	100 -00	340 -00	673 ·25	2,692 •75	407 -00			2,223 - 25	2,630 ·25	+ 62.50
Total	5,749 •74	2,166 • 75	1,498 -25	2,760 -06	12,174 -80	1,913 •31		642 • 37	8,838 ·7 9	11,394 •47	+780 -33

* These groups have the same acreages and the same number of farms as in Table No. P. 1.

+ Where the investment is more than disinvestment.

- Where the disinvestment is more than investment.

(B) EMPLOYMENT DATA REGARDING AGRICULTURAL LABOUR

Sambalpur Zone: Employment and wage earnings of agricultural labourers (casual labourers) in 1954-5 (Value in Rupees)

	Nature of work	No	of		Apri	il—Ma	V		June	July		A	lugust-	-Septe	mber		ctober-	-Nove	mbe r
·	Nuture of work,		<u>arers</u>	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	. (2)	(3)	(4)
1	In agriculture both in and outside the village	45	T	485	231	135	366	1,377	474	476	950	1,191	503	286	789	1,509	787	503	1,290
			A	10 •8 <i>•</i>	5-1	3-0	8 • 1	30 -6	10 • 5	10 •6	21 •1	26 • 5	11 • 2	6.4	16 <i>·</i> 6	33.5	17.5	11 • 2	28 ·7
2	In non-agriculture both	40	т	1,076	75	930	1,005	471	12	427	439	664	12	. 614	626	437	12	4 48	460
	village		A	26 •9	1.9	23 • 2	25 •1	11 -8	0.3	10 • 7	11-0	16-6	0.3	15 •4	15.7	10-9	0.3	11 -2	11-5
3	Total work done	53	т	1.561	306	1.065	1.371	1.848	486	903	1.389	1.855	515	900	1.415	1,946	799	951	1.750
3			A	29 4	5.8	20 • 1	25-9	34.9	9.1	17 •1	26.2	35-0	9.7	17-0	26.7	36.7	15-1	17-9	33 -0
	1 = Number of days	work	ed	2 =	Valu	e of pa	yments	s in kin	d	3 =	Cash v	vages	4	- To	tal				-
	T — Total A -	- Ave	rage		6		-				-		-						

ECONOMICS OF A MULTI-PURPOSE RIVER DAM

TABLE NO. S.11-(Contd.)

Sambalpur Zone: Employment and wage earnings of agricultural labourers (casual labourers) in 1954-5 (Value in Rupees)

Nature of work	No	o. of	L	December	r—Januar	. у		Februar	y—March	1		7	`otal	
	1400		(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
In agriculture both in and outside the village	45	Т	559	322	82	404	261	134	38	172	5,382	2,451	1,520	3,971
and outside the vinage		A	12 ·4	7 • 2	1.8	9-0	. 5•8	3.0	0 •8	3 • 8	119 •6	54 · 5	33 •8	88 ·3
In non-agriculture both in and outside the	40	T	1,090	32	1,047	1,079	1,175	32	1,113	1,145	4,913	175	4,579	4,754
village	۰.,	Α	27 • 2	0.8	26 • 2	27 •0	29 •4	0.8	27 • 8	28.6	122 •8	4 •4	114 • 5	118 •9
 •			•		· · · · · ·	· · · · · ·		······································				•		
Total work done	53	Т	1,649	354	1,129	1,483	1,436	166	1,151	1,317	10,295	2,626	6,099	8,725
		Α	31 •1	6.7	21 • 3	28 ∙0	27 -1	3 •1	21 •7	24 • 8	194 ·2	49 ·5	115 -1	164 .6

APPENDIX II

Cuttack District: Employment and wage earnings of agricultural labourers in 1954-5

٠

(Value in Rupees)

.

	Nature of work	No	of		April	—May			June	—July			igust—	Septen	ıber	00	tober-	-Noven	ıbe r
	Wature of work	tabou	rers	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Casu	al labour										•						,		
1	In agriculture both in	105	T	3,018	289	2,245	2,534	4,967	441	3,954	4,395	4,345	347	3,639	3,986	2,760	469	1,819	2,288
	and outside the village		A	- 28 • 7	2.7	21 •4	24 • 1	47 ·3	4·2	37 • 7	41 -9	41 • 4	3 - 3	34 • 7	38 -0	26 · 3	4 • 5	17 • 3	21 - 8
2	In non-agriculture both	73	т	871	25	913	938	183	35	118	153	143	39	82	121	350	14	299	313
	in & outside the village		A	11 •9	0.3	12.5	12.8	2.5	0.5	1.6	2 • 1	2 -0	0.5	1 • 1	1.6	4 • 8	0 • 2	4 <i>·</i> 1	4 • 3
3	Total work done	108	т	3,889	314	3,158	3,472	5,150	476	4,072	4,548	4,488	386	3,721	4,107	3,110	483	2,118	2,601
			A	36-0	2 • 9	29.2	32 • 1	47 ·7	4-4	37 • 7	42 · 1	41 -6	3.6	34 · 5	38 · 1	28 ·8	4 • 5	19 •6	24 • 1
Farn	ı servants	•																	
1	In agriculture both in	22	T	1,203	349	196	545	1,264	365	209	574	1,177	401	147	548	1,064	406	120	526
	and outside the village		A	54 ·7	15 •9	8 ·9	24 • 8	57 -4	16.6	9 · 5	26 • 1	53 ·5	18 ·2	6.7	24 • 9	48 ·4	18 -5	5.4	23 -9
2	In non-agriculture both	10	т	37	2	43	45	_								3	1	-	1
	in and outside the village		A	3.7	0.2	4·3	4 •5		—	_			-			0.3	0 · 1		0 • 1
3	Total work done	22	т	1,240	351	239	590	1,264	365	209	574	1,177	401	147	548	1,067	407	120	527
·			A	56•4	16-0	.10 <i>·</i> 9	26 • 9	57 •4	16.6	9.5	26 • 1	53-5	18 • 2	6·7	24 -9	48 · 5	18 <i>-</i> 5	5 • 4	23 -9
	1 = Number o	f days	wor	ked	2 =	= Value	e of pa	yments	in kin	1	3 =	Cash w	ages	4	= To	otal			
	T = Total	A ==	Ave	erage									-						

TABLE NO. C.11—(Contd.)

Cuttack District: Employment and wage earnings of agricultural labourers in 1954-5

(Value in Rupees)

APPENDIX II

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	Nature of work la	No laboi	o. of urers	De	cember-	—Janu	ıary	Fe	ebruary	P−Mar	°ch		Το	tal		Bulk during	c recei ; the y	pts vear	Grand total
				(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	In kind	In cash	Total	come
Casua	ıl labour																		
1	In agriculture both in	105	Т	3,878	3,211	417	3,628	2,566	360	1,831	2,191	21,534	5,117	13,905	19,022				19,022
	and outside the village		A	36 • 9	30 • 6	4·0	34 •6	. 24 • 4	3 • 4	17 •4	20 • 8	2 05 ·0	48 ·7	132 • 5	181.·2	-	-		181 ·2
2	In non-agriculture both	73	Т	195	_	157	157	1,001	6	1,073	1,079	2,743	119	2,642	2,761				2,761
	in and outside the villag	e	A	2.7		2.2	2.2	13 • 7	0 • 1	14 •7	1 4 -8	37 •6	1 •6	36 · 2	37 • 8		_		37 -8
3	Total work done	108	Т	4,073	3,211	574	3,785	3,567	366	2,904	3,270	24,277	5,236	16,547	21,783		_	_	21,783
			Α	37.7	29 · 7	5.3	35 ·0	33 ∙0	3 • 4	26 ·9	3 0 ·3	224 ·8	48 · 5	153 ·2	201 -07	_	_	_	201 ·07
Farm	servants																		
1	In agriculture both in	22	Т	939	9 36	22	958	1,026	319	152	471	6,673	2,776	846	3,622	930	—	930	4,552
	and outside the village		A	4 2 • 7	4 2 • 5	1 •0	43 • 5	46 ∙6	14 • 5	6.9	21 •4	3 0 3 •3	126 • 2	38 • 4	164 ·6	42 · 3	-	42 · 3	206 · 9
2	In non-agriculture both	10	Т	1 8 0	76		76	46	15	23	38	266	94	66	160		_		1 60
	in and outside the villag	e	A	18 •0	7 ·6	—	7.6	4.6	1 • 5	2.3	3 · 8	26 •6	9•4	6.6	16·0	-	_	.—	16 ∙0
3	Total work done	22	Т	1,119	1 92	22	1,034	1,072	334	175	509	6,939	2,870	912	3,782	930	_	930	4,712
			A	50 • 9	46 •0	1.0	47 ∙0	48 ·7	15·2	7.9	· 23·1	315 • 4	130 - 5	i 41 ·4	171 •9	42 · 3	_	42 · 3	; 214 ·2
.	$1 = \text{Number of days}$ $T = \text{Total} \qquad A =$	worl - Ave	ked erage	2	— Valu	e of p	aymen	ts in ki	nd	3 =	= Cash	wages	4	- To	tal				

F..22.

TABEL NO. P.11

Puri District: Employment and wage earnings of agricultural labourers in 1954-5

(Value in Rupees)

	Nature of work	No	o. of		April-	—May			June-	-July			August-	Septembe	7
_	Nature of work	1200	urers	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Casu	al labour				<u></u>									<u></u>	
1	In agriculture both in and outside the village	62	T A	1,666 26 •9	215 3 •5	879 14 •2	1,094 _ 17 •7	2,221 35 ·8	45 <u>3</u> 7 •3	1,045 16 ·9	1,498 24 •2	2,321 37 •4	654 10 • 5	906 14 •6	1,560 25 ·1
2	In non-agriculture both in and outside the village	61	T A	1,011 16 •6	37 0.6	784 12 •9	821 13 • 5	588 9 -6	44 0 • 7	364 6 -0	408 6 -7	432 7 •1	31 0-5	268 4 •4	299 4 -9
3	Total work done	65	T A	2,677 41 ·2	252 3 ·9	1,663	1,915 29-5	2,809 43 · 2	497 7 •6	1,409 21 •7	1,906 29 • 1	2,753 42 •4	685 10 • 5	1,174 18 ·1	1,859 28 ·6
Farn	n servants		••	~		23 0	- -	-13 &		41 /	6 7 3	74 7			20 -
:1	In agriculture both in and outside the village	5	T A	163 32 •6	60 12 -0	63 12 •6	123 24 -6	197 39 •4	75 15-0	73 14.6	148 29 •6	218 43 -6	86 17 • 2	72 14 •4	158 31 -6
2	In non-agriculture both in and outside the village	3	T A	68 22 •7	21 7 •0	20 6 • 7	41 13 •7	40 13 •3	15 5-0	7 2 · 3	22 7 · 3	25 8 • 3	10 3 • 3	4 1 - 3	14 4 •6
3	Total work done	5	T A	231 46 • 2	81 16·2	83 16 •6	164 32 •8	237 47 •4	90 18 -0	80 16-0	170 34 -0	343 48 •6	96 19 •2	76 15 ∙2	172 34 •4
	T = Total	1 =	= No.	of days	worked		3 =	= Cash w	ages						

A = Average 2 = Value of payments in kind 4 = Total

* TABLE NO. P.11—(Contd.)

Puri District: Employment and wage earnings of agricultural labourers in 1954-5

	Nature of work	No Iaboi	. of urers	<u></u>	October-	November		•	December	—January	
		14001		(1)	(2)	. (3)	(4)	(1)	(2)	(3)	(4)
Casua	l labour	,			<u> </u>			<u></u>	-	· · ·	
1	In agriculture both in and outside the village	62	T A	2,275 36 •7	990 16 •0	577 9 •3	1,567 25 · 3	2,326 37 • 5	1,131 18 ·2	486 7 ∙8	1,617 26 •0
2	In non-agriculture both in & outside the village	61	T A	514 8 • 4	24 0 •4	332 5 •4	356 5 •8	457 7 • 5	32 0 •6	282 4 •6	314 5 • 2
3	Total work done	65	T A	2,789 42 •9	1,014 15 •6	909 14 ∙0	1,923 29 •6	2,783 42 •8	1,163 17 ·9	768 11 ·8	1,931 29 •7
Farm	servants	• .									
1	In agriculture both in and outside the village	5	T A	216 43 •2	87 17 •4	70 14 ∙0	157 31 •4	189 37 •8	77 15 •4	65 13 -0	142 28 •4
2	In non-agriculture both in & outside the village	3	T Á	20 6 • 7	10 3 ·3	-	10 3 • 3	4 0 13-3	20 6 • 7		20 6 • 7
3	Total work done	5	T A	236 47 •2	97 19 •4	70 14 ∙0	167 33 •4	229 45 •8	97 19-4	65 13 •0	162 32 •4

APPENDIX II

TABLE NO. P.11-(Contd.)

Puri District: Employment and wage earnings of agricultural labourers in 1954-5

(Val	ue i	in K	Rup	ees
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	Nature of work	N . (io. of		February	-March	1	•	Το	otal		Bulk i	receipts d the year	uring	Grand total
•		1400	urers	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	In kind	In cash	Total	Income
Casu	al labour		•	•••					•						
1	In agriculture both in and outside the village	62	T A	922 14 •9	172 2 ·8	439 7 •1	611 9-9	11,731 189 •2	3,615 58 ∙3	4,332 69 •9	7,947 128 •2	80 1 · 3		80 1 · 3	8,027 129 • 5
2	In non-agriculture both in & outside the village	61	T A	1,382 22 •7	51 0 •8	994 16-3	1,045 17 •1	4,384 71 •9	219 3 •6	3,024 49 •6	3,243 53 • 2		••••••	_	3,243 53 ·2
3	Total work done	65	T A	2,304 35 •4	223 3 · 5	1,433 22 •0	1,656 25 • 5	16,115 247 ·9	. 3,834 59-0	7,356 113 ·2	11,190 172 • 2	80 1 · 2	_	80 1 · 2	11,270 173 ·4
Farm	1 servants		1-		•••			••••	••••		•••••				
1	In agriculture both in and outside the village	5	T A	132 26 •4	45 9 •0	60 12 -0	105 21 -0	1,115 223 -0	430 86 -0	403 80 ∙6	833 166 •6	82 16 •4	76 15 •2	158 31 -6	991 198 •2
2	In non-agriculture both in & outside the village	3	T A	76 25 •4	26 8 •7	21 7 -0	47 15 • 7	269 89 •7	102 34 -0	. 52 17 • 3	154 51 • 3	74 24 •7	34 11 • 3	108 36 -0	262 87 - 3
3	Total work done	5	T A	208 41 -6	71 14 • 2	81 16 • 2	152 30 -4	1,384 276 ·8	532 106 •4	455 91 -0	987 197 •4	156 31 -2	110 22 -0	266 53 •2	1,253 250 •6
<u> </u>	T = Total A = Avera;	ze			•	1 = 2 =	= No. = Valu	of days w e of payn	orked nents in k	ind	3	= Cas = Tota	h wages al		

Appendix III

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ADDITIONAL DATA ON RURAL INDUSTRY AND TRADE IN SAMBALPUR, CUTTACK AND PURI DISTRICTS.

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TABLE NO. S.12

Sambalpur Zone : Production, sales, expenses, etc. of different industrial (rural) establishments in 1954-5 316 (General samples only)

Serial No.			Workers in the family											
	Name of the industry	No. of		Male			Female			Child		Total	Total	Total
		surveyed	Skilled	Unskilled	Total	Skilled	Unskilled	Total	Skilled	Unskilled	Total	3K II LEU	W ASK IIICU	, orat
1	Weaving				· · · · · · · · · · · · · · · · · · ·									
	(a) Entire zone	35	48	5	53	1	45	46	3	5	8	52	55	107
	(b) Barapali	63	96	6	102	7	88	95	2		2	105	94	199
2	Goldsmithy	9	9		9		2	2	·			9	2	11
3	Fishing	3	4		4	-	3	3		-		4	3	7
4	Puffed rice preparing	11	5	1	6	13		13			-	18	1	19
5	Bamboo work	6	6		6	6		6		`		12		12
6	Tailoring	1	2		2							2		2
7	Cobbler	1	1		ĩ	_						1		1
`8	Hotel	1	1	_	1						-	1		1
9	Brass and bell metal work	s 10	13		13		1	1	_			13	1	14
10	Rope making .	2	2		2	2		2				4		4
11	Carpentry	2	2		2		_					2		2
12	Blacksmithy	2	3	_	3	/ _				-		3		3
13	Confectionary	1	2	_	2		2	2			-	2	2	4
14	Cowdung cake preparing	1	_			1		1	·	_	_	1	_	1
15	Bidi making	1	1		1	_	1 .	1				1	1	2
16	Mason	1	1		1		_					1		1
17	Pottery	2	3	—	3		3	3				3	3	6
18	Oil ghani	1	1	-	1		1	1		-	·	1	1	2
19	Paddy husking	2				2	-	2				2	- ال اخبنيور	2
20	Painting	1	1	-	1		_					1		1
21	Sculpture	1	1		1		1	1				1	1	2
22	Broomstick making	1	1		1							1		1
23	Mridung making	4	4		4				-		-	4		4

TABLE NO. S.12—(Contd.)

Sambalpur Zone : Production, sales, expenses, etc. of different industrial (rural) establishments in 1954-5 (General samples only)

Serial No		Employees			Total		Present	Value of in-	Working	Present
	Skilled	Unskilled	Total	Skilled	Unskilled	Total -	implements	the imple- ments during the year	capitat	value of capital
							Rs.	<i>Rs.</i>	Rs.	Rs.
1 (a)				52	55	107	966 • 69	176 • 56	2,064 .87	3.208.12
(b)	. —			105	94	199	2,401 .12	125 -00	5,632.00	8,158.12
2	·	· `		9	2	11	62 . 50	0.12	124 -00	186.62
3			_	4	3	7	25.25	<u> </u>	1 -00	26.25
4		. —	· _ ·	18	1	19	7 •44	10.56	183 .00	201.00
5	_	. í <u>—</u>	_	12		12	9 • 50	0 - 50	53 - 25	63 . 25
6	·	·		2		2	202.00		1.00	203.00
7	·		·	1		1	8 - 25	2.00	64.00	74.25
8	1 ↓	1	2	2	1	3	9 • 75	·	15.00	24.75
9	<u> </u>			13	1	14	1,626 • 25	196 .75	1,925 .00	3,748.00
10	·		 .	4	·	4	1 • 75	0.37	54.00	56.12
11	·	·		2	···	2	61 • 50	- · · ·	· ·	61 . 50
12	<u> </u>			3		3	48 •62	11 -25	42.50	102.37
13	: <u></u>		· .	2	· 2	4	•	—	5.00	5.00
14	í —-	. <u> </u>		1 .	·	1	0 - 25			0.25
15				•1	1	2	0 • 12		·	0.12
16	<pre>/</pre>	· · · ·	<u> </u>	1		1.	4 • 50	· ·	·	4.50
17		/		3	3	6	6 • 56	16.00	0 • 50	23.06
18		/ -	· -	1	1	2	6 • 25	<u> </u>	20.00	26.25
19		1	—	2		2	4.00	4	5.00	9.00
20	· _			1		1	· - ·		· · · ·	. —
21		·	. :	1 -	1	. 2	13 • 94		11 - 87	25.81
22	· · · · · · · · · · · · · · · · · · ·			1		1	-	-+	-	
23	-		·	· · 4 · · ·		4	• • • • • • • • • • • • • • • • • • •	-		·

APPENDIX III

TABLE NO. S.12—(Contd.)

Sambalpur Zone : Production, sales, expenses, etc. of different industrial (rural) establishments in 1954-5 (General samples only)

Serial No	Value of	Total actual cost (last year) (Rs.)										
<i>NO</i> .	tion and wage etc. receipts during last year (Rs.)	Cost of raw materials	Wages paid	Transport expenses	Cost of fuel and power	Taxes and fees	Interest paid during last year	Lepair and maintenance expenses	Total -	during tasi year (Rs.)		
1 (a)	49,677-00	31,136 • 75	48.00		••••••	77 -00		169 -00	31,430 -75	18,246 -25		
(b)	62,445 .00	35,427 • 50		· '		81 -00		607 ·75	36,116 -25	26,328 •75		
2	2,265 .00	147 • 75			7 -00		_	19-00	173 - 75	2,091 -25		
3	1,900 .00	99 · 50		-		178 - 12		23 -00	300 -62	1,599 •38		
4	6,621,00	3,265 -00			697 ·50		-		3,962 • 50	2,658 <i>-</i> 50		
5	1,233 -00	656·25				14 -00	-	14-00	684 •25	548 • 75		
6	475 -00				-		-	15-00	15-00	460-00		
7	180 .00	64 -00	 .		_	-	-	2 -00	66 -00	114-00		
8	6,230 .00	5,030 .00	164-00	-	360-00	2.50	-	5-00	5,561 -50	668 ·50		
9	24,385 •31	17,960 •75		17 .62	1,717 -56	9.56	_	145-31	19,850 .80	4,534 •51		
10	754 • 50	560-00	_			10 - 50	-		570-50	184 -00		
11	980 00							_		980-00		

ECONOMICS OF A MULTI-PURPOSE RIVER DAM

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Sambalpur Zone: Production, sales, expenses, etc. of different industrial (rural) establishments in 1954-5 (General samples only)

Serial No	Value of	Total actual cost (last year) (Rs.)											
140.	tion and wage etc. receipts during last year (Rs.)	Cost of raw materials	Wages paid	Transport expenses	Cost of fuel and power	Taxes and fees	Interest paid during last year	Repair and maintenance expenses	Total	year (Rs.)			
12	405 ·37	25.00		·	40 .00				65 ∙ 00	340 • 37			
13	1,060 .00	700 · 0 0	·			2.62	·		702 .62	357 - 38			
14	180.00			·	<u> </u>	/ _	_			180 ·00			
15	774 ·00					/	·	4	_	774 ·00			
16	540 ·00		<u> </u>		·	/ _		 .		540 ·00			
17	325 - 50				80.00	/	· 👝	1.00	81 -00	244 • 50			
18	1,062 • 50	1,000 .00		— ,	_ /			5.00	1,005 .00	57 - 50			
19	365 • 50	168 ·00		—	· _ /	_	• • •		168 -00	197 - 50			
20	180.00	· - ·	_	· · · · · · · · · · · · · · · · · · ·		. 	. ·			180 .00			
21	252.00	65 ·94		4.00	16 •69	· · ·	<u> </u>	2.00	88.63	163 - 37			
22	0.62				/			· —.	_	0 •62			
23	630 .00	· · ·	. <u></u> .		-/	1		<u> </u>		630 ·00			

APPENDIX III

Sambalpur Zone: Turnover, expenses, etc. of trading (rural) establishments dealing in different commodities in 1954-5

Serial No.	Name of trade	No. of samples	Area occupied by shops and godowns (in sq. ft.)	Rent for shops and godowns (Rs.)	Value of owned land and buildings occupied by shops (Rs.)	Value of the stock on the day of investigation (Rs.)	Value of total annual turnover (Rs.)
1	Grocery	7	416	71 •25	1,204-00	4,851 -94	28,720 -00
2	Selling pan	3	141	60 -00	585-00	22.62	6,368-00
3	Selling tobacco	2	70		_	180-00	2,350 -00
4	Selling cattle	1	108	-	_	50-00	1,150-00
5	Selling yarn	1	110		5,000 -00	1,978-00	36,000 -00
6	Selling fuel	1	1,575	• 60-00	-	6-00	2,500 -00
7	Selling bangles	1	-	_		70 -00	2,600 -00
8	Contractor	2	54	-		1,690-00	2,500-00

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TABLE NO. S.13—(Contd.)

Sambalpur Zone: Turnover, expenses, etc. of trading (rural) establishments dealing in different commodities in 1954-5

	Persons employed					Expenses (1		Teres	Outstanding debts (in Rs.)		
Serial No.	Male	Female	Total	Wages and salaries paid	Light charges	Taxes and fees	Other expenses	Total	net income last year (Rs.)	Principal	Interest
, 1	6	7	13	\	28 • 12	530 - 25	12.00	570 • 37	5,156 ·00	160 .00	19 • 19
2	2	2	4	Ť	6.00	0.87	_	6.87	780 .00	-	–
3	2	2	4	-		62 ·00	<u> </u>	62 ·00	650 ∙ 00		_
4	3	2	5	_ \		_	-	_	1 44 ·00		-
5	1	_	1	_ \		1 4 •00	1 50 ·00	164 ·00	2,250 .00	, `	
6	2	·	2	100.00	-	66 -00	-	166 •00	500 -00		,
7	1	1	2	_ \	\ `	_	. —	. –	540 .00	300 •00	12 • 75
8	88		88	_*	$\sum_{i=1}^{n}$	-	—		2,700 .00	-	_

* Information was not available on these items.

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APPENDIX III

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TABLE NO. C.12

Cuttack District : Production, sales, expenses, etc. of different industrial (rural) establishments in 1954-5 (General samples only)

<u> </u>	Name of industry	No. of				•	И	′orkers in	the fam	ily				
No.		surveyed	Skilled male	Unskilled ma le	Total male	Skilled female	Unskilled Jemale	Total female	Skilled child	Unskilled child	Total child	Total skilled	Total unskilled	Total
1	Weaving .	7	6	÷	6	6	3	9		2	2	12	5	17
2	Goldsmithy	7	12	-	12			-	—			12		12
3	Pottery	1	1	—	1	2		2			-	3	—	3
4	Bamboo work	7	8	هيرغه	8	9		9			—	17	—	17
5	Cane work	2	2		2		-		—	· —		2		2
6	Carpentry	2	2		2						-	2		2
7	Puffed rice	1				1		1		-		1		1
8	Confectionary	3	3		3	-						3		3
9	Oil ghani	2	4	·	4	1	1	2				5	1	6
10	Drum making	1	1	1	2		1	1			-	1	2	3
11	Rope making	1				2	-	2				2		2
12	Blacksmithy	2	3	—	3							3	<u> </u>	3
13	Paddy husking	17*	-	-		20		20				20		20
14	Repairing	1	1		1	` 			-			1		1
15	Dairy	5	5		5	5	—	5		2	2	10	2	12
16	Parching	4	2		2	6		6			—	8		8
17	Brass and bell metal	3	5		5	-						5		5
18	Stone cutting	2	3	*******	3	-		—				3		3
19	Bidi-making	2	3		3						-	3		3
20	Mason	1	1		1	-					-	1		1
21	Thread work	1	1		1						-	1	-	1
22	Bangles making	1	1		1				—			1	-	1
23	Flower garland making	1	1		1			. —				1		1

* Includes 15 labourers in paddy husking. They have neither any capital investment nor any expense.

TABLE NO. C.12—(Contd.) -

Cuttack District: Production, sales, expenses, etc. of different industrial (rural) establishments in 1954-5 (General samples only)

Serial		Employees	<u> </u>		Total		Present value of	Value of investment	Working capital	Present value of
No.	Skilled	Unskilled	Total	Skilled	Unskilled	Total	implements	in implements during the year	<i>(</i>)	total capital
	.	·					(<i>Rs</i> .)	(<i>Rs</i> .)	(<i>Rs.</i>)	(<i>Rs.</i>)
1	2		2	14	5	19	372 •44	69 ·00	200.00	641 ·44
2	. 1	<u> </u>	1	13	_	13	110 . 50	12.62	133 - 50	256 .62
3	-			3	—	3	1.50		_	1 • 50
4	<u> </u>			17	—	17.	24 - 44		50.00	74 ·44
5	-			2		2	11.00		00 · 1	12.00
6	_	·		2	_	2	25.12	3.00	10 . 50	38 •62
7			-	1		1	1 • 19	1 .00	2.00	4 • 19
8		-	· ·	3		3	27 •44	34.00	74 ·00 /	135 ·44
9				5	1	6	72 • 56	21 .50	180-00	274 ·06
10	_			1	2	3	10 .62	2.50		13 .12
11				2	-	2			0.50	0 • 50
12				3		3	99 •06	1.50	25.00	125 • 56
13		_	—	20	·	20	9.00	_	17 ·00	26 ·00
14	<u> </u>			` 1	² —	1	·	1 -50	5.00	6 ⋅ 50
15	·	_		10	2	12	692 ·25	3.00	15 · 0 0	710 - 25
16	-			8	-	8	23 . 56	2.06	13 •44	39.06
17		1 -	1	5	1	` 6	721 •75	29 - 50	105 ·00	856-25
18			—	3	—	3	40 .00	6 •00	•	46 ·0 0
19	4		4	7	· <u></u>	7	2 . 19	5.69	1 20 ·00	127 -88
20	_			1		1	11.50/	_		11 • 50
21	·	_	.—	1 .		1	0 12	_	0 • 25	0.37
22		-	—	1		1	0 • 06	_	19 ·12	19 · 18
23	_	_		1	. —	1	1 •87		1.00	2.87

APPENDIX III
Cuttack District: Production, sales, expenses, etc. of different industrial (rural) establishments in 1954-5 (General samples only)

Saulal	Value of gross				Total actual c	ost (last year)			Net receipts
No.	ed during last year	Cost of raw materials	Wages paid	Trasnport expenses	Cost of fuel and power	Taxes and fees	Interest paid during last year	Repair and maintenance expenses	Total	during last year
	(<i>Rs</i> .)	(<i>Rs</i> .)	(<i>Rs</i> .)	(<i>Rs</i> .)	(<i>Rs</i> .)	(<i>R</i> s.)	(<i>Rs.</i>)	(<i>Rs.</i>)	(<i>Rs</i> .)	(<i>Rs</i> .)
1	4,593 .87	3,031 •75	.10 -00	5 -00	0.31			123 -00	3,170-06	1,423 -81
2	5,417 -00	2,223 • 37	22 . 50	-	218 • 75			33-00	2,497 •62	2,919 -38
3	363 .87			_	-	-	_		-	363 ·87
4	1,408 -50	706 - 31						16-00	722 - 31	686 .19
5	, 123 ·12							1-00	1 -00	122 -12
6	567 ·25				-		-	7 • 50	7 • 50	559 •75
7	91 • 25	38 -00	-	-	.5-00		-		43 -00	48 ·25
8	2,332 -00	1,707 • 37		—	100-00	-	·		1,807 - 37	524 -63
9	3,328 .69	2,530 •44	 P		60 -00		-	16.50	2,606 •94	721 • 75
10	430 -00	197 • 50	-					3 -00	200 - 50	229 .50
11	75 ·62	4.00		·	_	-		-	4 -00	71 -62
12	1,230 -71	350-00	~~	29 -00	68 • 50			-	447 <i>·</i> 50	783 -21

TABLE NO. C.12—(Contd.)

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Cuttack District: Production, sales, expenses, etc. of different industrial (rural) establishments in 1954-5 (General samples only)

Souial	Value of gross		Total actual cost (last year)								
No.	production and wages receiv- ed during last year	Cost of raw materials	Wages paid	Transport expenses	Cost of fuel and power	Taxes and fees	Interest paid during last year	Repair and maintenance expenses	Total	auring last year	
	(<i>Rs</i> .)	(<i>Rs</i> .)	(<i>Rs</i> .)	(<i>Rs</i> .)	(<i>Rs.</i>)	(<i>Rs</i> .)	(<i>Rs</i> .)	(<i>Rs</i> .)	(<i>Rs</i> .)	(<i>Rs</i> .)	
13	1,679 •28	310.00			. —	•	<u> </u>		310 .00	1,369 .28	
14	268 • 75	32.00			10.00			4.00	46 00	222.75	
15	1,325 12	230 .00			10 .00	-	_	13 -00	253.00	1,072 .12	
16	328 •96		 ` .		23.75		·	4.00	27.75	301 - 21	
17	2,410 .00	293 ·62	40.00		340.00			140.00	813 .62	1,596 • 38	
18	599 •50					0.75		10.00	10.75	588 -75	
19	4,006 •25	1,561 -25	1,165 00	190 .00	50.00	2.00			2,968 •25	1,038 .00	
20	600 ·00				·		·	<u></u>	• •	600 •00	
21	9 -75	3 .12			····· .		<u> </u>		3 • 12	6 -63	
22	46 • 87	14 •62			4 • 50	′ <u></u>		ند . همی	19 • 12	27 .75	
23	129 - 25	5.00	· ·		•	•		5.00	10.00	119 - 25	

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APPENDIX III

Cuttack District: Turnover, expenses, etc. of trading (rural) establishments dealing in different commodities in 1954-5

C		No. of	Area occupi-	Rent for	Value of	Value of the	Value of	Per	sons employ	ed
Seriai No.	Name of trade	samples	ed by shops and godowns	shops and godowns	owned land and building occupied by	stock on the day of inves- tigation	total annual turnover	Male	Female	Total
•			(in sq. ft.)	(<i>Rs</i> .)	shops (Rs.)	(<i>Rs</i> .)	(Rs.)			
1	Grocery	17	40,024	331-00	4,830-00	9,086 00	111,390.00	19	2	21
2	Selling bamboo and wood	1	5,000		1,000.00	200-00	3,000-00	1		1
3	Paan business	6	-		-	33 - 87	4,700 -00	6		6
4	Selling glass bangles	4				49-00	1,485-00	4		4
5	Selling bidi	1	20	48-00	200 -00		500-00	1		1
6	Selling sweetmeats	1	20		-		400-00	1		1
7	Cattle dealer	9	203		140 -00	404 -00	18,630-00	8	2	10
8	Rice and vegetable shops	7	88		500-00	314 - 25	3,166-00	7	_	7
9	Selling fish	5				290.50	2,400-00	5	1	6
10	Betel shop	3	18	3 - 25	5-00	21 - 94	1,250,00	3		3
11	Cloth and yarn shop	3	176	36-00	500-00	107 -00	7,940 00	3		3
12	Stationery shop	2	24	1 -50	7 -00	59.31	1,330-00	2		2
13	Selling brass and bell metal pot	ts 2				442 -00	3,800-00	3		3
14	Leather business	1				20 -00	220-00	1		1
15	Lime business	1 .				3.50	480-00	1		1
16	Kerosene oil selling	1			-		96-00	1		1

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Note:-Only in case of grocers two male employees were reported.

TABLE NO. C.13—(Contd.)

Cuttack District: Turnover, expenses, etc. of trading (rural) establishments dealing in different commodifies in 1954-5

Serial			Expenses (R s.)			Total net	Outstanding de	bts (in Rs.)
No.	Wages and salaries paid	Light charges	Taxes and fees	Other expenses	Interest paid	Total	last year (Rs.)	Principal	Interest
1	1,080 .00	431 •75	491 •00	140 •00	326 ∙00	2,468 •75	20,160 .00	4,140 ·00	358 •00
2		20.00			_	20.00	8 00 ·0 0		_
3				30 • 19		30 · 19	1,425 .00		
4			 ``	115.00	—	115.00	565 -00	-	-
5		_	-	—	-		100 -00		 `
6		5 • 25	—			5 • 25	200.00		
7	. –		120 .00	28.12	15.00	163 ·12	2,955 00	400 •00	58 ·75
;	_		10 .00	231 •94	—	241 •94	1 ,664 ·00		
	· <u> </u>		30.00	—	-	30 .00	990 •00	200.00	
)		27 • 25	12 .00	—		39 • 25	435 ·00		
l		35.00	125 00	<u> </u>	—	160 -00	1,480 .00	150 · 00	—
2		—	<u> </u>				445 ∙0 0		
;	-	_		50.00		50.00	650 ·00		
ļ			_	20.00	—	20.00	1 50 ·00		<u></u>
5		—	—		~ .	, —	120 .00		
6			-		<u> </u>		24 00		

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APPENDIX III

Puri District : Production, sales, expenses, etc. of different industrial (rural) establishments in 1954-5 (General samples only)

Serial No.	N lame of industry	Name of industry	Number of			•	·	Workers in t	he family				
		covered	Skilled male	Unskilled male	Total male	Skilled female	Unskilled female	Total female	Skilled child	Unskilled child	Total child	Total skilled	
1	Weaving	7	8			7	3	10		1	1	15	
2	Pottery	1	1		1	_						1	
3	Brass and bell metal	1	2		2	-					-	2	
4	Blacksmithy	1	2		1	-			2		2	3	
5	Palm leaf work	1	1		1	1	1	2		_	—	2	
6	Bamboo work	2	3		3	3		3		1	1	6	
7	Stone cutting	1	1		1			-			-	1	
8	Carpentry	1	1		1							1	
9	Confectionary	4	4	-	4	4		4				8	
10	Oil ghani	1	1		1				-	—		1	
11	Rope making	3				4		4	-			4	
12	Parched rice	1	1		1	1	-	1				2	
13	Cane work	3	4		4	2	1	3				6	
14	Net work	1	1		1			-				1	
15	Paddy husking	10*		—	-	10		10			-	10	
16	Tailoring	1	1		- 1			-				1	
17	Fishing	1	-			1		1				1	
18	Goldsmithy	7†	9	_	9	_			1	·	1	10	
19	Spinning	1		_				1				1	

* Includes six labourers in paddy husking. They have neither any capital investment nor any expense.

† Includes one employee in this work.

TABLE NO. P.12-(Contd.)

Puri District : Production, sales, expenses, etc. of different industrial (rural) establishments in 1954-5 (General samples only)

Serial No				Employees			Total		Present	Value of	Working	Present	Value of
110.	Total Unskilled	Total	Skilled	Unskilled	Total	Skilled	Unskilled	Total	implements	in imple- ments dur- ing the year	Capital	total capital	duction and wage receipts during last year
<u> </u>							·		(<i>Rs.</i>)	(Rs.)	(Rs.)	(Rs.)	(Rs.)
i	4	19	_			15	4	. 19	240.•56	1 2 ·0 0	63 ·12	315-68	3,565 .12
2		1				1		1	11 -00			11 .00	97 ·19
3		2	2		2	4		4	30 ·00		1 0 ·0 0	40.00	950-00
4		3				3	_	3	<u>19</u> • 75	0.12	29 - 75	49 •62	701 ·00
5		. 2				2		2	7 • 50		3.00	10.50	271 - 56
6	2	8				6	2	8	9 • 50		3 -00	12 - 50	7 5 6 • 25
7	<u> </u>	1				1	-	1	6.00			6.00	100 ·00
8	 .	· 1		·		1		1	19 • 50			19 • 50	416.00
9		8				8		8	51 ·00	0.81	39 · 3 7	91 · 18	1,510.37
10	 . •	· 1			·	1		1	69 .06	 '	20.00	89 • 06	58-00
11	ره میشد	. 4	-+- ·	· · · · · · · · · · · · · · · · · · ·		4		4	1 • 19	·	6.00	7 . 19	341 .00
12		2	-			2	<u></u>	2	. 8 • 50	4.00	15-00	27 - 50	417 ·00
13	1	7	~~~		_	6	1	7	7 • 50	0.25	10 .00	17 ·75	473 - 62
14	·	1		<u> </u>		- 1		1	0.50		10 ∙00	10 . 50	40.00
15		10	2	1	3	12	1	13	23 • 37	1 .69	50 ·00	75 ·06	1,791 •37
16		1		·		1		1	233 -00		50 · 00	283 -00	2,689 .25
17		1	4 -	·	4	5	_	5	50-00	-	10 -0 0	60 ·00	240.00
18	· ~~ : ··	- 10	1 .		- 1	11	·*	11	111 •62		113 · 0 0	224 62	11,710.75
19		1				1		1	0 •12		1 ·0 0	1 ·1 2	32-00

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Puri District :	Production, sales, expenses, etc. of different industrial (rural) establishments in 1954-5 (Ge	eneral
· · ·	samples only)	

Serial No.		. .	,	Total acti (lasi	ual cost (year)	•			Net receipts during last
•	Cost of raw materials	Wages paid	Transport expenses	Cost of fuel and power	Taxes and fees	Interest paid during last year	Repair and maintenance	Total	, yeur
;	(<i>Rs</i> .)	(<i>Rs</i> .)	(<i>Rs</i> .)	(<i>Rs</i> .)	(<i>Rs</i> .)	(Rs.)	(<i>Rs.</i>)	(<i>Rs</i> .)	(<i>Rs</i> .)
1	2.357 .25			0.62			56.75	2,414 .62	1,150-50
2	12.81			25.63				38 ·44	58 - 75
3	72.50	353-00		99 -00	_		2.75	527 ·25	422-75
4	423 .00			40 -00			5-00	468-00	233-00
5	10.75				_		1.50	12-25	259-31
6	278.75						0.75	279.50	476 • 75
7				—	3-00		3 -00	6 -00	94-00
8		• `		_			4 -00	4-00	412-00
9	749 • 19			55-00	5-00	· · · · ·		809 - 19	701 - 18
10				10-00			20-00	30 -00	28-00
11	129 .75							129 - 75	211-25
12	195-00			96-00		10000000).	-	291-00	126-00
13	222.00	·	7 .00				2 -00	231-00	242-62
14	8.75				-			8 - 75	31-25
15	935-00	43 • 19						978 - 19	813-18
16	2,085 .62		· · · · · · · · · · · · · · · · · · ·		_		40-00	2,125 -62	563 -63
17							10 -00	10-00	230-00
18	9.259 .50	240 -00		137 - 25		—	23 - 75	. 9,660 -50	2,050 ·25
19	8.75	—	—					8 - 75	23 - 25

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Puri District: Turnover, expenses, etc. of trading (rural) establishments dealing in different commodities in 1954-5

Serial No.	Name of trade	No. of samples	Area occupied by shops and godowns (In sq. ft.)	Rent for shops and godowns (Rs.)	Value of owned land and building occupied by shops (Rs.)	Value of the stock on the day of investigation (Rs.)	Value of total annual turnover (Rs.)
1	Grocery	11	795	114.00	1 900 .00	565 •12	11 410 .00
2	Vegetable selling	2				55.00	4,788.00
3	Selling cloth, etc.	1	70	н Г 1 	200 •00	17 •44	1,000 .00
4	Selling yarn	. 1	60	· · · · · ·	125.00	306 - 25	5,000 -00
5	Stationery shops	. 3	24		50 •00	116 • 25	1,900 .00
6	Selling cattle	1					1,500 .00
7 .	Selling pulses & grams	1	49		100 00	3.00	900.00
8	Selling dry-fish	1			••••••••••••••••••••••••••••••••••••••	1.87	400 -00
9	Paan business	9 .	16			10.00	14,780.00
10	Selling khili paan	1					200.00
11	Selling coconut	2		•		· · ·	425.00
12	Selling thread	1	 14			1.00	150 •00
13	Selling lime	1	50		50 -00	1 • 87	130.00

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APPENDIX III

Puri District : Turnover, expenses, etc. of trading (rural) establishments dealing in different commodities in 1954-5

<u> </u>	Per	sons employe	ed			Expenses (Rs.		Outstanding debts (in Rs.)			
Serial No.	Male	Female	Total	Wages and salaries paid	Light charges	Taxes and fees	Other expenses	Total	- Iotal net income last year	Principal	Interest
1	14	1	15	······································	149 •94	4.87	28 -00	182 - 81	2,585-00	320-00	50-00
2	2		2			-		-	570-00	100-00	25-00
3	. 1		1		-	-		-	200-00	-	-
4	1		1			7 -00	60-00	67 -00	156-25		
5	5		5		11 -50	1.75		13-25	505 -00		
6	2	-	2	-		5 -00		5-00	400-00		-
7	1	-	1	-	3 -00	6.25	3-00	12 - 25	120-00	50-00	3.12
8	1	1	2	_	-				100-00	50-00	12 - 50
9	9	-	9		16-00	-	230-00	246 -00	3,870-00		
10		1	1		14 -00			14-00	60-00		-
11	2		- 2	_	-	-		-	425-00	****	-
12		1	1	-			-	-	50-00		-
13	1	-	1		-	-	20 -00	20-00	88-00	-	

Note: No persons reported as employed on wages or salaries.

APPENDIX IV

REPORT ON THE SURVEY OF SAMBALPUR, CUTTACK AND PURI TOWNS

[Note :

Industrial, trading establishments, and services and professions in the three towns: As in the rural areas, in the survey of Sambalpur, Cuttack and Puri towns samples of trading and industrial establishments were selected for intensive enquiry. The samples were, however, selected with the help of the household survey schedules. Each case of an owner or operator of a trading or industrial establishment, or a professional, or one engaged in services found in the sample households (for income and employment enquiry) was covered by the intensive enquiry.

With regard to wholesalers, an attempt was made to cover all the wholesalers in the town, since very few came up in the sample.

The data presented in the Table Nos. S., C., P., -27 & 28 only sum up certain basic features of these establishments.

In all the three towns and particularly in Cuttack* and Sambalpur, the survey of wholesalers was the least satisfactory. The respondents were very suspicious and non-cooperative. In many cases they just refused to talk with our investigators; in others they gave palpably wrong and misleading figures. The data, therefore, are of limited validity, particularly those relating to turnover, and income.

In regard to retailers also one had to face similar difficulties, particularly in Cuttack where the atmosphere at the time was not quite conducive to such a survey. In general, it might be said that the reliability of information varied inversely with the size of the operating unit.]

SAMBALPUR TOWN

Population: Sambalpur had a population of 23,525 in 1951. From 1901 the population of the town had recorded a continuous increase. From 12,870¹

* In Cuttack while the city survey was done by the Utkal University Team, we carried out intensive enquiries regarding trade, industry and professions there.

1" At this census the Deputy Commissioner excluded a number of hamlets containing over 5,000 inhabitants which do not really belong to the town. If these are deducted from the population of last census, for purposes of comparison, the result is an increase of 37 per cent. Sambalpur must naturally be a prosperous town as it is the centre of trade for most of the Sambalpur District." Census of India, 1901, Vol. XIII Central Provinces, Part I, Report, p. 23. in 1901 it had increased to 13,574 in 1921, and from this to 17,079 in 1941. The total increase between 1901 and 1921 was a little more than six per cent but the increase between 1921 and 1941 was of the order of 26 per cent. During 1941-51 an increase of 38 per cent was recorded. This was largely due to the influx of people into the town because of the commencement of the construction of the Hirakud-Dam in the neighbourhood. The sex ratio of the population at various censuses is given below:

Number of females per 1,000 males in

1901	1911	1921	1931	1941	1951
970	1030	1020	950	1009	835

It is possible that the increase in the sex ratio in 1911 and 1921 reflected the selective mortality caused by the plague and the influenza epidemics. During 1921-31 the males increased faster but the females again gained in the succeeding decade. During 1941-51 the population increased by 6,446 persons of which 4,293 were males.

Our sample consisted of 537 households in Sambalpur. It represented nine per cent of the total households listed in the register of citizens in 1951. The total population of the sample was 2,264. Estimating from this, we put the population of Sambalpur at 24,900 in the middle of 1954, three years after the census.

Size of the family: Table No. S.14 gives the distribution of sample families according to their size. The average size of the family was 4.21. Nearly 50 per cent of the families in the sample consisted of 2, 3, and 4 members each and they were almost evenly distributed between these categories. Uni-member families accounted for a little more than 10 per cent of the families.

Caste composition: Table No. S.15 presents the distribution of sample families by caste groups. The biggest single group in the sample was that of Brahmin families accounting for 15.5 per cent. Next to them was the class of Scheduled Castes and Scheduled Tribes accounting together for 13 per cent of the sample families. Between seven and eight per cent each were accounted for by artisan castes, Keuta (fishermen) and Gauda (milkmen). Between six and seven per cent each were Kayasth or Karan, Marwadi-Agarwals, and Mohammedans. The Caste Hindu families were 78 per cent of the total in the sample. A notable feature was the rather sizeable proportion of nonindigenous trading castes in Sambalpur. Marwadi, Agarwals, and Gujaratis formed about eight per cent of the sample families.

Earners and non-earners: Table No. S.16 gives the distribution of earners and non-earners in the sample families according to sex. A detailed age distribution of earners and non-earners is presented in Table No. S.17. Attention may be drawn in this connection to the age-group 10-15 in this table which includes persons of 15 years of age and are, according to our definition, adults.

Of the total population of the sample 35 per cent were earners. The ratio of earners to non-earners was 1:1.83. The earners included 32 unemployed, *i.e.*, four per cent of the total earners. These included two non-adults. Of the total earners only 1.25 per cent were non-adults or juvenile earners. Female earners were 16.5 per cent of the total and of these six were non-adults. There were 5 male earners to every female earner. The ratio of earners to non-earners among females was 1:8.

The detailed age distribution of earners and non-earners shows that in the total population of the sample six per cent were 56 or more years of age. It is significant that among earners nearly seven per cent belonged to this age-group.

Occupational distribution of population

We now present information regarding the occupational distribution of heads of families. Later similar information about the total earners in the sample families has been presented. Table No. S.21 gives the distribution of heads into the industrial classes in the I. S. I. classification.

Instead of commenting on this table we now proceed to furnish data regarding the total earners in the families in the sample and their distribution occupationwise, as occupation is, by and large, an individual attribute and can best be discussed for the whole body of earners instead of for the heads of families only. Table No. S.18 gives the occuptional distribution of male and female earners in the sample.

The largest group of earners in the sample, 28.6 per cent, was in "services", 19 per cent each in manufacturing, and trade and commerce, the three categories accounting for about two-thirds of the total earners. About nine per cent were in agriculture, livestock, etc., and four to five per cent each in construction, sanitary services, and transport. Sambalpur, judging from the occupational distribution of earners, was mainly an administrative centre and a minor trading and manufacturing centre.

The character of the occupational structure can be more vividly appreciated by an examination of the sub-groups of occupations in each of the bigger categories. In the services category 33 per cent of the earners were in government service, 13 per cent were domestic servants and cooks, 10 per cent were in the State Police force, seven per cent each in laundry, and hair-cutting, and six per cent in educational services.

In the trade and commerce category only six per cent were in wholesale trade and the rest in retail trade. A little more than 37 per cent were in retail trade of cereals, and 10 per cent in that of stationery.

In the manufacturing group 14 per cent were engaged in manufacturing textile products, 8.5 per cent in making textile garments and six per cent in handloom weaving. A further 12 per cent were engaged in the production of sweetmeats, about seven per cent in that of silver and goldware, about five per cent in manufacturing earthernware, and between four and five per cent each were engaged in repairing bicycles, and motor vehicles. Those engaged in agriculture, livestock etc. accounted for nine per cent of the total earners in the sample. Thirty six per cent were engaged in fishing, and a further 27 per cent in the production of cereal crops.

The categories of construction and electricity, gas, water, and sanitáry services were numerically small and were not dominated by any prominent sub-groups. In the category, 'transport, storage and communications' containing a little more than four per cent of the earners, 55 per cent were rikshaw pullers, coolies, etc., while 27 per cent were engaged in transport by motor vehicles.

Judging from the occupational distribution it would seem broadly that Sambalpur was mainly an administrative centre and only incidentally an industrial and commercial one. Manufacturing was mainly centred round textiles, mainly of the handloom variety. The very small proportion engaged in wholesale trade showed that trade was mostly of the retail local character, and Sambalpur was by no means an important wholesale trading centre.

Earnings of earners in different industrial groups

In Table No. S.19 information regarding the earnings during the previous year of earners in sample families grouped by industries has been presented.

For bringing out the prominent features of the distribution of the earnings in different industries it is necessary to indicate the relative level of earnings in respect to one another, and secondly, to bring out the dispersion of earnings in each industry. As the sample size was small, we thought it would not be very helpful to comment on the earnings of sub-groups in the main industrial categories. We have mainly confined ourselves to the latter. In order to facilitate further the type of analysis envisaged above the 1st, 2nd, 3rd quartile earnings in each of the industrial categories have been calculated and presented in Table No. S.20. The Table also presents the ratios of 1st and 2nd, and 2nd and 3rd quartile earnings in each of the categories.

For a general indication of the level of earnings we can take the median as quite adequate and fairly representative. Examining the median earnings we find that they recorded the highest level in distributive services (trade and commerce), and the lowest in agriculture, livestock, forestry, etc. (The median earnings in "activities not adequately described" were even lower than in agriculture etc., but we have deliberately treated the earnings in agriculture, etc. as the lowest because they were clearly traceable to a precise group of industries and occupations and because activities inadequately described were really a heterogeneous mass of unclassified industrial and occupational activities.) In the remaining six groups of industries two distinct clusters in respect of earnings were noticeable. The median earnings of transport and storage and services were Rs. 673 and Rs. 693. While those of the remaining three namely construction, manufacturing, comprising mostly textiles and electricity, gas, water, etc. services, ranged between Rs. 407 and Rs. 491. The ratio between the lowest and the highest median earnings was 1:2.3. That between agriculture, etc. and transport and services was around 1:1.7; between agriculture and the remaining three around 1:1.80. It is important to note that trade and commerce recorded the highest earnings of all, a fact which reflects upon the cost of distributive services.

Switching to the relative earnings in the same categories we find that the range of the variation of the ratio of the 1st and 2nd quartile and 2nd and 3rd quartile earnings was quite narrow, between 1:1.3 and 1:2.1. The ratio of the 1st and 3rd quartile earnings in any range was not higher than 1:4.2. The range of dispersion was not associated with the relative level of earnings in different categories.

Family income: Information regarding the earnings of earners in sample families does not exhaust the information on income. It does not cover unearned income of earners nor does it give an adequate idea of family incomes. We present that information in two tables. In Table No. S.22 the sample families have been classified by income groups. In Table No. S.21 the families have been classified by the industry and occupation of the head of the family and the total income of families in that class. Nearly seven to eight per cent of the total sample families were concentrated in the income ranges between Rs. 251 and Rs. 2,000 per year. A little more than 60 per cent of the families had incomes ranging from Rs. 501 to Rs. 2,000. The median income was around Rs. 940. The per capita income was Rs. 400.

No. of members in the family	Total No. of families	Per cent to the total	
1	57	10.6	
2	93	17 • 3	
3	83	15 • 5	
4	87	16 • 2	
5	72	13 •4	
6	56	10 •4	
7	38	7•1	
8	21	3.9	
9	12	2 • 2	
10 and above	17	3 • 2	
Not stated	1	0.2	
Total	537	100-0	

TABLE NO. S.14

Sambalpur Town: Distribution of sample families according to size

ECONOMICS OF A MULTI-PURPOSE RIVER DAM

TABLE NO. S.15

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Sambalpur Town: Sample families classified by caste and community

Serial No.	Castes	Total families	Per cent to the total
1	Brahmins	83	15.5
2	Kayastha, Karan	34	6.3
3	Khandayat	21	3.9
4	Kulta, Aghria, Chasa, Odia	31	5-8
5	Artisan Castes (*1)	43	8 ·0
6	Keuta (fisherman)	41	7.6
7	Gauda (milkman)	39	7.3
8	Vaishya and Gola etc. (trading community)	8	1.5
9	Other Oriya Caste Hindus (*2)	58	10.8
10	Marwari Agarwal	34	6.3
11	Other Non-Oriya Caste Hindus	27	5.0
12	Scheduled Castes	59	11.0
13	Scheduled Tribes	10	1.9
14	Muslims	36	6.7
15	Other religious groups	13	2.4
<u></u>	Total	537	100 .0

- (*1) This includes Teli 13, Tanti 11, Kumbhar 6, Bania 3, Badhei 3, Kansari 4 and the other artisan Castes.
- (*2) This includes Bhandari 9, Mali 11, Dumal 6, Jyotish etc. 3, and the other Caste Hindus.

TABLE NO. S.16

Sambalpur Town: Distribution of earners and non-earners in the sample population by sex

Sex	Earners	Non-earners	•	Total
Male	670	517	-	1,187
	(56.4%)	(43 •6 %)		(100%)
Female,	133	955	۶	1,088
	(12 • 2 %)	(87·8*/)	ʻ.	(163%)
Total	803	1,472		2,275
	(35·3*/)	(64 ·7 %)		(10%)

	Ea	rners	Nor	i-earners	Une P	mployed ersons	Та	otal :
Age (Groups)	No.	Per cent to the total	No.	Per cent to the total	. No.	Per cent to the total	No.	Per cent to the total
0-5	1	0.1	316	21.5		·····	317	13.9
6-10	4.	0.5	265	18.0		 ·	269	11.8
11-15	12	1.6	198	13.5	2	6.3	212	9.3
16-20	51	6.6	155	10.5	7	21.9	213	9.4
21-25	102	13.2	117	7.9	13	40.6	232 ⁻	10.2
26-30	138	17 - 9	92	6.2	4	12.5	234	10.3
31-35	109	14 • 2	73	5.0	2	6.3	184	8.1
36-40	117	15·2	69	4.7	1	3.1	187	8.2
41-45	88	11.4	37	2.5			125	5.5
46-50	55	7 • 1	35	2.4	1	3.1	91	4.0
51-55	36	4.7	33	2.2	1	3.1 .	70	3.1
56 and above	55	7 • 1	82	5.6	1	3.1	138	6.1
Not stated	3	0 •4	•		 -`_	. <u> </u>	3	0.1
Total	771	100 •0	1,472	100 •0	32	100.0	2,275	100 •0

Sambalpur Town: Age distribution of earners and non-earners in the sample population

TABLE NO. S.18

Sambalpur Town: Occupational distribution of earners in the sample population

S. No	Main Industry	Male	Female	Total
1.	Agriculture, livestock, forestry, fishing, and hunting	57	13	70
2	Manufacturing .	126	30	(9·1%) 156
3	Construction	29	9	(20 ·2 %) 38
		en e		(4·9%)
4	Electricity, gas, water, and sanitary services	19	12	31 (4 ∙0%)
_. 5	Distributive Services (trade and commerce)	126	23	149 (19·3%)
6	Transport, storage, and communication	36	·	36
7	Services	189	31	$(4 \cdot 7 \%)$ 220 $(28 \cdot 6\%)$
8	Activities not adequately described	51	, 13	(20°07) 64 (8·3%)
9	Not stated	6	1	7 (0 ·9%)
	Total	639	132	771 (100%)

Sambalpur Town: Distribution of earners in the sample according to industry, and their total annual income, in 1954-55

Serial	_					Income	(in Rs.)	<u> </u>					۲. ۲. ۲.
No.	1 <i>to</i> 150	151 <i>to</i> 250	251 <i>to</i> 500	501 <i>to</i> 1,000	1,001 <i>to</i> 2,000	2,001 <i>to</i> 3,500	3,501 <i>to</i> 5,000	5,001 <i>to</i> 7,500	7,501 <i>to</i> 10,000	Above 10,000	Not stated	Total	No. of earn who also reported oth han cash ince
1	10 (14·3%)	10 (14 · 3 %)	27 (38 ·6%)	15	4	2 (2.9%)	1				1 (1.4%)	70 (100 %)	
2	10 (6·4%)	20 (12 ·8 */)	50 (32·1%)	43 (27 ·6 * /)	28 (17 ·9 %)	4 (2.6%)	1 (0.6%)		-		-	156 (100%)	-
3	5 · (13·2%)	5 (13·2%)	11 (28 •9 %)	8 (21 -0 %)	5 (13·2%)	2 (5·3*⁄)	1 (2·6%)	1 (2·6%)	-	-	-	38 (100 %)	2
4	3 (9·7%)		20 (64 · 5 %)	3 (9·7%)	4 (12·9%)	-		1 (3·2%)	-	. —	-	31 (100%)	-
5	4 (2 ·7%)	(6·0 %)	29 (19·5%)	37 (24 ·9 %)	32 (21 · 5 %)	9 · (6·0%)	6 (4-0%)	9 (6-0%)	1 (0·7%)	6 (4 0 %)	7 (4 ·7 %)	149 (100 %)	3
0		(5·5%)	10 (27 ·8 %)	16 (44 -4 %)	6 (16·7%)	1 (2·8%)	-	-	-	-	(2·8%)	36 (100%)	
۲ ۲	(5.0%)	(6.4%)	(25 ·0 */)	65 (29 •5 %) 10	(22 ·7 %)	(3 ·2 %)	(0.9%)	(0·5%)	(1.4%)	(0-9%)	(4·5%)	(100%) 64	-
9	(4 ·7 %) 2	(14 • 1%)	(60 ·9 */)	(15·6°⁄) 2	(4·7%)						2	(100 %)	2
	(28 .6%)	(14.2%)		(28.6%)							(28-6%)	(100%)	
Total	48 (6·2 */)	70 (9·1 ?)	241 (31 · 3 %)	199 (25 ·8 %)	132 (17 ·1 %)	25 (3·3*)	11 (1·4%)	12 (1 ·6 %)	4 (0·5%)	8 (1-0;2)	21 (2·7%)	771 (100 %)	7

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Samoarpar	in 198	54-5	, inclusion g-groups
Serial No.	Quartile ear	nings in rupees	

Sampalvar Town: Quartile incomes of earners in industry groups

	Q 1	Q 2	Q 3	Q1:Q2	Q 2 : Q 3
1	223 • 50	385 - 26	659 ·33	1:1.72	1:1.71
2	296 ·00	491 ∙00	930 · 23	1:1.66	1:1.89
3	241 ·00 ·	455 • 54	969 •75	1:1.89	1:2.13
4	310 • 37	407 • 25	542 •67	1:1.31	1:1.33
5	445 •96	89 2 · 89	1,860 •37	1:2.00	1:2.08
6	419 • 75	672 • 87	946 ·31	1:1.60	1:1.41
7	376 .00	693 ·31	1,251 .00	1:1.84	1:1.80
8	276 .64	379 - 21	481 ·77	1:1.37	1:1.27
• 9			· <u> </u>		•
Total	323 •10	541 •20	1,035 .09	1:1.67	1:1.91

TABLE NO. S.21

Total incomes of sample households classified Sambalpur Town: according to the industry of the head in 1954-5

Serial No.	No. of households	Total income of the households (Rs.)
1	52	67,040
2	92	95,670
3	23	38,340
4	15	19,090
5	96	311,200
6	28	25,400
7	164	298,500
8	39	30,740
9	28	23,790
Total	537	909,770

399.90

Rs.

Total No. of persons in the households surveyed: 2,275

Income per capita:

ECONOMICS OF A MULTI-PURPOSE RIVER DAM

TABLE NO. S.22

Sambalpur Town: Distribution of sample families according to total income during 1954-5

Income group	No. of households	Percentage to the total
Rs.	· . · · · · · · · · · · · · · · · · · ·	t _e t
1 to 150	· 3	0.6
151 to 250	8	1.5
251 to 500	90	16.8
501 to 1,000	194	36 • 1
1,001 to 2,000	138	25 • 7
2,001 to 3,500	45	8 -4
3,501 to 5,000	21	3.9
5,001 to 7,500	6	1 • 1
7,501 to 10,000	6	1-1
Above 10,000	14	2.6
Not stated	12	2.2
Total	537	100-0

Sambalur Town: Production, sales, receipts and expenses, etc., of industrial establishments in 1954-5

Sorial	Nong of industrial	sur-			No	. of pers	ons en	gaged				Total	Value of I	Amount borrowed	
No.	establishment	ples	Fam	ily mem	bers	Er	nploye	ed		Total		casual	invesime		- (in Rs.)
:		No. of sam	Male	Female	Total	Male	Female	Total	Male	Female	Total	– and piece rate workers	Fixed	Working	
1	Pottery	4	8	7	15			· · · ·	8	7	15	i	, 566 ·00	34.50	300 .00
2	Sweetmeats preparing	. 9	19		19	8		8	27	· · ·	27		4,075 ∙00	1,060 .00	680 ·00
3	Bidi making	4	10		10	1,258	_	1,258	1,268		1,268	.	36,300 .00	331,000 .00	
4	Sawing	5	8		8	54		54	62		62		52,000 .00	105,000 00	10,000 .00
5	Fishing	9	10	_	10				10		10)	1,197 •50	34.00	. 70 •00
6	Goldsmithy	6	7	· <u> </u>	7		 		7	<u> </u>	7	· ·····	676 ∙00	950 ·00	· — ,
7	Tailoring	5	5		5	5		5	10		10)	2,841 •62	91.00	1,235 00
8	Weaving (Cotton)	3	7	2.	9	<u> </u>		· . ———	7	2	9	·	281 .00	120.00	
9 ·	Weaving (Tussar)	4	15	• • •	15	1	·	. 1	16		16	i <u> </u>	372 .00	354 00	180 .00
10	Weaving (Cotton & Tussar)	1	4	.2	6	· · · - ·			. 4	2	6	; <u> </u>	240 .00	200.00	50.00
11	Oil pressing	2	3	1	4	*			3	1	. 4	•	855-00	100.00	
12	Khil pan preparing and selling	2	3		3			• 	3	—	3		30 00	43 • 50	30 •00

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APPENDIX IV

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	`	mples			λ	lo. of p	ersons	engaged	1			Total No. of	Value of t investm	otal capital ent in Rs.	Amount borrowed
Serial No.	Name of industrial establishment	f sai ed	Family	y mem	bers		mploye	d .		Total		casual -	Fixed	Working	(in Rs.)
		No. 0. survey	Male	Female	Total	Male	Female	Total	Male	Female	Total	piece rate workers			,
13	Putfed rice preparing	2	4	3	7				4	3	7		312-00	102 -00	40 -00
14	Daims fame	-		1		•		•	-	•	•		A ACC 00	400.00	

Sambalpur Town: Production, sales, receipts and expenses, etc., of industrial establishments in 1954-5

NO.	esiadiisnmeni	50	-	-	-							and	Fired	Working	
		No. 0. survey	Male	Female	Total	Male	Female	Total	Male	Female	Total	piece rate workers			
13	Putled rice preparing	2	4	3	7				4	3	7		312-00	102 -00	40 -00
14	Dairy farm	2	4	1	5	3		3	7	1	8		4,466 -00	480 -00	2,150-00
15	Hotel (meals)	2	4	-	4	3	-	3	7		7		6,091 -00	1,045 -50	
16	Iron work (blacksmithy)	1	1	1	2		_	_	1	1	2		64 -00	5-00	10-00
17	Painting	1	1	-	1	-	-		1		1	<u> </u>	5 -00	4-00	5-00
18	Bidi making	1	_	1	1		-	,		1	1		2 -00	6 -00	-
19	Channa preparing and selling	1 .	4	-	4	-	-	_	4		4			25-00	
20	Furniture making	1	1	_	1	6		6	7		7			400 -00	
21	Watch repairing	1	1		1		-		1	_	1		150-00	-	
22	Cart, etc. repairing	1	4	-	4				4		4	-	100 -00		
	Total	67	123	18	141	1,338	_	1,338 1	1,461	18	1,479	- 11	0,624 • 12	441,054 · 50	14,750 -00

TABLE NO. S.27—(Contd.)

Sambalpur Town: Production, sales, receipts and expenses, etc., of industrial establishments in 1954-5

Sector	Expenses during last year (in Rs.) 11														
No.	Wages and salari- es paid	Raw materials used	Fuel and power cost	Water charges	Transport expenses	Selling cost	Rent	Taxes	Maintenance and repair expenses	Total expen- ses (excluding depreciation)	Depreciation charges	Total expen- ses (including depreciation)			
1	45 •00	320 00	665 ·00		_	80 •00	81 ·00	21 • 25	, 8 •75	1,221 .00	10 • 26	1,231 •26			
2	1,908 .00	24 , 579 ·50	2,735 -75	856 ·00	36.00		2,340 .00	30 • 75	77 ∙00	32,563 .00	132 • 52	32,695 •52			
3	279 , 000 ∙00	520,392 .00	3,510 ∙00	2,400.00	9,150 .00		3,100 .00	26,184 ·00		843 , 736 ·00		843,736 .00			
4	47,107 · 50		16,309 .00	1,135 .00	3,000 .00		5, 172 ·00	8,896 •50	8,650 ∙00	90 , 270 ·00	41 7 • 76	90,687 •76			
5		381·00					48 .00	94 •63	63 •00	586 .63	109 ·48	696 •11			
6	_	27.00	151-00			_		3 9 •74	85 ·00	302 •74	32.31	335 ∙05			
7	2,700 .00	1,130 •50	350.00				840 ∙00	9 • 50	189 .00	5, 219 ∙00	81 •76	5,300 •76			
8		1,839 •50	57.00		·			3 • 75	15.00	1,915 -25	6.83	1,922 .08			
9	_	° 3,639 ∙00	92.00	_	100 .00		72.00	3.75	75.00	3,981 •75	26.83	4,008 ·5 8			
10	. 	4,855 ·00	25.00	-	15.00	-		4 •50	60-00	4,959 •50	9 • 21	4,968 ·71			
11		1,046 .00	18.00	· · · · ·	24 .00		·	16.12	20.00	1,124 .12	41 •43	1,165 -55			

APPENDIX IV

TABLE NO. S.27-(Contd.)

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Sambalpur Town: Production, sales, receipts and expenses, etc., of industrial establishments in 1954-5

Seria No.	1			•		Espense	s during las	t year (in Rs.	.)			
No.	Wages and salari es paid	Raw - materials used	Fuel and s power cost	Water charges	Transport expenses	Selling cost	Rent	Taxes	Maintenance and repair expenses	Total expen- ses (excluding depreciation	Depreciation charges	Total expen- ses (including depreciation)
12		1,601 •75	46 .00		_		96 -00	, 	1 <i>.</i> 25	1,745-00	2 -01	1,747 -01
13	105 -00	1,087 .00	415-00		2	-1	<u> </u>			1,607 -00	3 - 25	1,610 -25
14	878-00	2,840 -00	82 -00			9.000 7	144 -00			3,944-00	158 -48	4,102 .48
15 '	900-00	2,986 00	1,156-00	60 00	20 -00		1,320-00	90-00	40.00	6,572-00	80 - 28	6,652 ·28
16		180-00	20.00			_				200-00	2 - 41	202 - 41
17	ت يون ^ي مست	50-00					•		-	50 -00	4 -00	- 54+00 、
18	<u> </u>	° 360 •00	12-00		·		30-00	· .		402 -00	0-73	402 .73
19		200-00	84 -00					9-00	-	293 -00	0 • 75	293 -75
20	2,400 00	2,530-00			500-00		180 -00	7 -00		5,617-00		5,617-00
21 -		1,350 -00			24-00		360-00	24-00	-	1,758 -00	3 - 21	1,761 -21
22		_	240 -00		_	•••••		9 -00	5 -00	254-00	0.13	254 • 13
Total	35,043 -50 57	71,394 •25	25,967 •75	4,451 -00	12,869 -00	80 -00	13,783 -00	35,443 •49	9,289-00 1,	008,320 -99	1,123 -64 1,	009,444 •63

TABLE NO. S.27-(Contd.)

Serial No.	•		Gross r	eceipts	~		
Serial No.	Value of total pro duction last year	Value of sale last year	Receipts from repairs, etc. last year	Receipts from wages last year	Total gross receipts last year	Net income last year*	
	(in Rs.)	(in Rs.)	(in Rs.)	(in Rs.)	(in Rs),	(in Rs.)	
1	2,214 • 56	2,215 ·00	- ,		2,215 00	994 ·00	
2	45,260 00	46 , 160 ·00		_	46,160 .00	13,597 00	
3	947,000 .00	947 , 000 ∙00			947,000 00	103,264 .00	
4				283,187 -00	283,187 00	192,917 00	
5	7,800 ∙00	7,800.00	•	<u> </u>	7,800 00	7,213 -37	
6			326.00	2,675 • 50	3,001 • 50	2,698 • 76	
. 7			12.00	7,310-00	7,322 -00	2,103.00	
8	3,300 .00	3,300 .00		· '	3,300.00	1,384 •75	
9	8,805 .00	9,925 •00			9,925 00	5,943 ·25	
10	8,424 -00	8,440.00	· · · · · · · · ·	•	8,440 .00	3,480 • 50	
11	2,056 .00	2,056 .00		••••••••••••••••••••••••••••••••••••••	2,056 .00	931 -88	
12	6,060 .00	6,060 ·00	• • •		6,060 •00	4,315 00	

Sambalpur Town: Production, sales, receipts and expenses, etc., of industrial establishments in 1954-5

• Gross receipts minus expenses excluding depreciation.

APPENDIX, IV

TABLE No. S.27-(Contd.)

Seria	Volue of total out		Gross receipts				
No.	duction last year	Value of sale	Receipts from repairs	Receipts from wages	Total gross receipts last year	Net income iast year®	
	(in R s.)	(in Rs.)	(in Rs.)	(in Rs.)	(in Rs.)	(in Rs.)	
13	1,880 -00	1,880 -00			1,880-00	273 -00	
14	9,225 -00	9,225-00			9,225-00	5,281-00	
15	8,114-25	8,114 -25		-	8,114 ·25	1,542 - 25	
16	300-00	360-00		-	360-00	160-00	
17	500 -00	500-00		-	500 -00	450-00	
18	540 -00	540 -00	-		540-00	138-00	
19	· 490-00	490-00	-		490-00	197-00	
20	5,770-00	5,770 -00		— `	5,770-00	153-00	
21		_	1,800 -00	·	1,800 -00	42 -00	
22	-	_	1,500-00		1,500-00	1,246 -00	
	Total 1,057,738 ·81	1,059,835 -25	3,638 -00	293,172 • 50	1,356,645 •75	348,324 • 76	

Sambalpur Town: Production, sales, receipts and expenses, etc., of industrial establishments in 1954-5

* Gross receipts minus expenses excluding depreciation.

Sambalpur Town: Turnover, expenses, etc., of trading establishments dealing in different commodities in 1954-5

						No.	of pe	rson	s em	ploye	d	Expens	ses during la	st year (in .	Rs.)
ial No.	Name of trade	. of esta- hments veyed	Total A capital v invested o	pproximate alue of store n the day of visit	Total annual turnover	Far me be	nily 2m- 2rs	E plo	îm- yees	To	tal	Wages and salaries paid	Rent paid shop and godown	Light charges	Total
Ser		No. blis sur	(<i>Rs</i> .)	(Rs.)	(<i>Rs</i> .)	Male	Female	Male	Female	Male	Female	_			
1	Stationery shop	16	17.380 .00	28,520.00	83,325.00	16		1	_	17		240.00	2.550.00	643 ·05	3.433.05
2	Vegetable shop	7	267 .05	182 .75	13,344 .00	5	6	_	—	5	6		336.00		336.00
3	Grocery shop	16	18,056 00	17,840 .00	78,880.00	19	2	2	_	21	2	324 .00	2,182.00	426 ·00	2.932.00
4	Betel shop	13	1,240.00	1,329 .05	26,530.00	16				16			480.00	114 ·00	594.00
5	Fuel business	3	1,315 .00	968.00	8,968.00	4	1	3	 `	7	1	1,4 40 •00	468 .00		1,908.00
6	Cloth shop	10	29,500.00	55,800 .00	160,900 .00	14	—	2		16		1,152 .00	3,000.00	429 ·00	4,581.00
7	Fish selling	3	240 ·00	330 .00	10,100 .00	2	.3		-	2	3	<u> </u>	— .		
8	Petrol & kerosene selling	2	19,000 00	10,300 .00	220,000 .00	2	—	5		7	—	1,740 •00	1,680 .00	408 ·00	3,828.00
9	Electrical store	2	28,000 .00	27,000 ∙00	15,900 ∙00	2	-	2	-	4		1,080 00	360 ∙00	84 ·0 0	1,524.00
10	Seja selling	1	50 ∙00	200 .00	1,000 .00	1		_		1			120 ∙00	·	120 .00
11	Ornament selling	1	5,000 .00	10,000 .00	20,000 00	1	· · · ·			1		-		120 ·00	120.00
12	Liquor selling	1	2,000 .00	1,500 .00	3,600 •00	1				1				 .	•
13	Painting	1	4,000 .00	6,080 00	2,000 .00	1		1		2		540 · 00	ан алы . Ал	288.00	828 .00
	Total	76	126,048 .05	160,049 ·80	644,547 00	84	12	16		100	12	6,516 .00	11,176 .00	2,512 .00	20,204 •05

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APPENDIX IV

CUTTACK CITY•

Population: The population of Cuttack city in 1951 was 102,505, just about double of what it was in 1901. Going back to the times before 1901, the population figures for 1881 and 1891 show that the population of the city was 42,656 and 47,186 respectively in those years. However, these figures are not comparable with those for 1901, etc., because the latter belong to the area within city limits as it was in 1951. The broad idea conveyed by the pre-1901 figures is that the population of the city was increasing during the preceding decades but presumably not very rapidly. The Census Report for 1901 recorded that the population of Cuttack city increased by nine per cent during the decade 1891-1901 and that "the advent of the railway has doubtless been the main factor in the somewhat rapid increase." ¹

During 1901-1911 the population increased by $2 \cdot 2$ per cent. Even this increase was possibly mainly accounted for by the extension of the area of the city. The Census Report of 1911 observed: "In that year (1901) it contained a detachment of the Madras regiment but it has since ceased to be a military station and there is consequently a slightly less of population on that account", and a footnote contains the information that "the old Cantonment has been absorbed by the Municipality. Its population at the time of the census was 3,508."²

In the next decade the population of the city recorded a decline of about three per cent and that was largely due to the mortality caused by the influenza epidemic of 1918.³

Between 1921 and 1931 the population recorded an increase of 28 per cent which according to the Census Report of 1931 might be regarded as representing little more than the natural growth since 1911. "To some extent the population of this town was temporarily augmented in 1931 by the presence of a fairly large staff engaged in settlement work."⁴

In the next decade there was an increase of about 14 per cent. Cuttack, in 1937, gained the status of a provincial capital when Orissa was made an in-

* As noted earlier the survey of families in Cuttack town was not directly carried out by us but by the Utkal University. The sampling design and the questionnaire used were, however, almost identical with those in the surveys of Puri and Sambalpur carried out by us. The data was tabulated by the Utkal University team to suit their purposes, and tables prepared by them were not necessarily similar or comparable with similar tables prepared by us for Puri and Sambalpur towns and presented here. In this section on Cuttack town we have presented the tables similar to ours prepared by the Utkal University team, with only a few comments. The full report of the investigation will be made available by the Utkal University in the near future. We are grateful to them for allowing us to make use of the tables presented here.

- ¹ Census of India, 1901, Vol. VI, Bengal, Part I, Report-1902, p. 33.
- ² Census of India, 1911, Bengal, Bihar, and Orissa, Part I-Report, 1913, p. 39.
- ³ Census of India, 1921, Vol. VII, Part I-Report, Bihar, and Orissa, 1923, p. 88.
- Census of India, 1931, Vol. VII, Bihar and Orissa, Part I-Report 1933, p. 97.

dependent province, and a part of the increase in the population of the city must have been due to migration of government officers and offices to Cuttack which were formerly not there. During 1941-51 came the largest increase so far in the city population amounting to 38 per cent.

The 10 per cent sample investigated by the Utkal University inquiry in 1954-55 contained 10,286 persons. This gives an estimate of the population of the city in that year as almost the same as in 1951. In a way this was not surprising because the new capital of Orissa, Bhuvaneshwar, was slowly drawing away government offices and personnel from Cuttack for the last 4-5 years, and Cuttack was gradually ceasing to be the capital of the State. That in the face of this it was maintaining its population may indicate that it had not stopped growing in other respects.

The following figures give the number of females for 1,000 males in Cuttack at each of the censuses since 1901.

1901	1911	1921	1931	1941	1951
855	845	870	795	786	757

If the figure for 1921 is ignored, there is a continuous decreasing tendency for the number of females to males. The 1921 figure is affected by the heavy mortality due to the influenza epidemic and may be ignored as being not normal. The growing deficiency of females may indicate growing male imigration and urbanization.

Caste composition: Table No. C.15 gives the classification of sample families according to community. In the total population 45 per cent were Caste Hindus, 16 per cent were Scheduled Castes, and 23 per cent other backward classes. The rest about 16 per cent belonged to other religions like Mohammedanism, Christianity, etc. Among the Caste Hindus, the three large groups were of Brahmins, Karan, Mahanty and Kayastha, and Khatriya and Khandayats. They were 10.7 per cent, 12 per cent and 11.8 per cent respectively in the total population. Next to these came Keuta, Dhibara and Kaibarta and Gauda and other Caste Hindus each accounting for a little less than five per cent of the total population. Among the Scheduled Castes the most numerous were Bauri, Pana and Mahantar and Hadi. The Muslims formed nine per cent of the total population and the Christians accounted for a little over four per cent.

Size of the family: Table No. C.23 gives the classification of sample families by caste and size. The largest concentration was in families with three to six members. These categories contained nearly 53 per cent of the total families in the sample. Five-member and six-member families were a little more than 14 per cent each, while four-member families were about 13 per cent. Threemember families formed 11 per cent of the total families in the sample. The average size of the family was 5.5.

Age, sex, earner and non-earner: Table No. C.16-17 classifies the sample population by age, sex, earner, and non-earner. The number of females per

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1,000 males in the sample was 923, much higher than in the census. This was due to the sample being a household sample which excluded the predominantly male population of institutions, etc. which the census included. The adult population formed 61 per cent of the population. The proportion of adults among males was higher than that among females, perhaps a typical characteristic of an urban population.

About 27 per cent of the sample population were earners. For each earner in the population there were 2.68 non-earners. Among male adults 80 per cent were earners. Among adult females only six per cent were earners. There were very few non-adult earners in the sample.

Occupational distribution of earners: Table No. C.19 gives the distribution of earners in the sample according to their occupational and income class. The earners are grouped here, unlike in Puri or Sambalpur, not according to industry but according to their occupations.

The largest group of earners (18.7 per cent) was engaged in sale and related occupations, while the second largest group containing 13.5 per cent of the total earners was in printing and miscellaneous processing, etc. Agriculture, hunting, mining, etc. accounted for 7.4 per cent of the total earners. The median income of all earners was Rs. 446. The middle 50 per cent of incomes ranged between Rs. 272 and Rs. 744.

Family income and occupation: Table No. C.24 presents the distribution of the heads of sample families by their occupation and the total incomes of their families.

Broadly speaking the occupational distribution of earners discussed earlier and that of the heads of sample families was similar, except in the category of pensioners, unemployed, beggars, etc. This category contained nearly 11 per cent of the total of heads of families in the samples. Only 1.6 per cent of the total earners in the sample were in that category.

The median family income in the sample was Rs. 656 while the first and third quartile incomes were Rs. 389 and Rs. 1,282 respectively.

Cuttack City: Sample families classified by caste and community

Sr. N	To. Caste	No. of families	Per cent to the total
1	Brahmin	200	10 -7
2	Karan, Kayastha	225	12 -0
3	Khatriya, Khandayat	220	11 - 8
4	Chasa, Pradhan	26	1 •4
5	Jotish, Jogi and Baishnba	32	1 •7
6	Tanti, Meher, Rangani, Patra, Bhulia	39	2.1
7	Kumbhar	19	1.0
8	Kamar	11	0.6
9	Teli, Kuber	83	4.5
10	Kanshari	4	0.2
11	Bania	38	2 •0
12	Badhai	17	0.9
13	Chitrakar	. 4	0.2
14	Keuta, Dhibara and Kaibarta	92	4-9
15	Gudia	30	1.6
16	Gauda	90	4.8
17	Barik	37	2 -0
18	Marwari, Agarwal	22	1 -2
19	Telugus	62	3.3
20	Marahatta •	3	0.2
21	Other Caste Hindus	89	4 · 8
22	Dhoba	37	2-0
23	Mehantar and Hadi	28	1.5
24	Pana	32	1 •7
25	Other Scheduled Castes	98 ·	5.3
26	Scheduled Tribes	15	0-8
27	Muslims	170	9 • 1
28	Christians	78	4 • 2
29	Sikhas	· 5	0.3
30	Other religions	2	0 • 1
31	Not stated	58	3 • 1
	Total	1,866	100 -0

TABLE NO. C.16-17

Cuttack City: Sex and age distribution of earners and non-earners in the sample population

S. N	I.a.	Age	1	Earners	1	No	o n-e arn	er s	Tota	t popul	ation	Per cent
. 1	10.	groups	Male	Female	Total	Male	Femal	e Total	Male	Female	Total	to the
			 						, • · · ·		• •	
1	* 0	4 years	2	1	3	711	684	1,395	713	685	1,398	13 •6
2	° 5- 1	14 "	10	2	12	1,377	1,277	2,654	1,387	1,279	2,666	25 •9
3	15-2	24 🔑	479	28	507	412	838	1,250	891	8 <mark>66</mark>	1,757	17 • 1
4	25-	34 "	717	55	772	31	68 6	717	• 748	741	1,489	14 • 5
5	35-4	44 "	. 649	44	693	7	495	502	656	539	1,195	11 •6
6	45-:	54 "	462	37	499	22	379	401	484	416	90 0	8 .8
7	55-	64 "	195	16	211	. 66	218	284	261	234	495	4 • 8
8	65-1	74 "	- 76	4	80	52	115	167	128	119	- 247	2 •4
9	75	years an abo	id	2	20	45	60	105	63	62	125	1 • 2
0	Nə	t stated	•			5	9	14	5	9	14	0.1
	·, `									,		
÷												
	1	otal	2,608	189 (2	2,797 7 •2%)	2, 728	4,761 (7	7,489 72 ·8 %)	5,336	4,950	10,286 (100%)	100-0
	1	5 years	and abov	/C	Ad	luits	6	0.5%				

. **x**.

Cuttack City: Distribution of earners in the sample according to main occupation, and their total annual income in 1954-5

Sorial	Name of occupation					/	Annual inc	ome (in R	ls.)				75 - 4- 1
No.	Nume of occupation	1-150	151-250	251-500	501- 1,000	1,001- 2,000	2,001- 3,500	3,501- 5,000	5,001- 7,500	7,501- 10,000	10,001 & above	Not stated	— 10tal
1	Managerial, administrative, and executive occupations				1	3	3	7	6	3	6		29(1 ·1)
2	Professional, technical and related occupations	4	6	37	61	35	38	18	12	6	6	5	228(8 .9)
3.	Subordinate administrative and executive occupations	6	6	122	141	39	17	3		1	1	1	337(13·0) ·
4	Ministerial occupations		`	7	44	127	27	6			1,		212(8 . 2)
5	Sales and related occupations	15	37	163	149	64	21	16	4	6	8	5	488(18.8)
6	Agriculture, hunting, mining, food processing, etc.	13	21	96	50	7.	4					1	192(7 • 4)
7.	Textiles, leather, woodwork, etc.	9	11	72	89	·′ 9		·	_	_	· .	<u> </u>	190(7.3)
8	Construction, general engineer- ing, and related occupations	4	9	69	111	42	6	1	, 1		·	·	243(9+4)
9	Transport and communications, other production, etc.		8		• 44	22	2		. —	•			113(4 • 3)
10	Printing, miscellaneous pro- cesses, etc.	43	68	168	58	8		1	<u>.</u> .			2	348(13 • 4)
11	Service occupations	23	14	46	· · 50	- 15	- 6	1	1	3	2	11	172(6.6)
12	Pensioner, unemployed and beggar, etc.	. 1		1	1	3	1	· · · ·	1			34	42(1.6)
•	Total	118	180	818	799	374	- 125	53	25	- 19	24	59	2,594(100%)

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APPENDIX IV

No. of per- sons in the				Tatal				
No. of per-		Ca	stes		7	otal		
family	Caste Hin- dus and back- ward classes	Scheduled Tribes	Scheduled Castes	Other religions	No. of families	Per cent to the total		
1	123	2	16	12	153	8 ·2		
2	106	_	28	14	148	7 9		
3	141	3	45	19	208	11 •2		
4	158	4	47	30	239	12.8		
5	176	2	52	- 35	265	14 • 2		
6	181	2	47	39	269	14 • 4		
7	121	、 	30	38	189	10 • 1		
. 8	103	1	20	20	144	7 • 7		
9 and 10	101	_	13	22	136	7.3		
11 and abo	ve 71	-	18	26	115	6·2		
Total	1,281 (68 •6 *⁄-)	14 (0·8*⁄2)	316 (16·9*⁄ə)	255 (13 ·7 */)	1,885 (1:3%)	100.0		

Cuttack City: Distribution of sample families according to caste and family size

The average size of the family-5.5 members.

Cuttack City: Distribution of sample families according to the occupation of the head and total annual income in 1954-5

	Occupation of the head of the -	Total income (in Rs.)											
Serial No.	family	1-150	151-250	251-500	501- 1,000	1,001- 2,000	2,001- 3,500	3,501- 5,000	5,001- 7,500	7,501- 10,000	10,001- & above	Not stated	– Jotal
1	Managerial, administrative, and executive					2	2	2	8	3	7	·····	24(1 · 3)
2	Professional, technical and related occupations	<u>`</u>	4	13	38	31	38	16	16	8	8		172(9 • 2)
3	Subordinate administrative and executive		3	44	129	50	18	7		1	2		254(13 • 6)
4	Ministerial		·	1	21	78	31	9			2		142(7 .6)
5	Sale and related occupations	3	13	57	94	82	24	. 9	6	3	9.		300(16.1)
6	Agriculture, hunting, mining, and food processing	3	9	34	48	16	6		1	2	-		119(6 • 4)
7	Textile, leather, and wood-work		6	22	64	15	3	1	<u> </u>				111(5 • 9)
8	Construction, general engineer- ing, and electrical		2	22	65	49	10	3	—	 .	_		151(8 • 1)
9	Transport and communications			24	37	20	5		1				87(4 ·7)
10	Printing, miscellaneous and other production process	6	16	80	69	19	6		'		-		196(10 .5)
11	Service occupation	8	12	15	33	20	. 10	5	1	1	. 3	<u> </u>	108(5 .8)
12	Pensioners, unemployed, beg- gars, and not stated	6	7	32	56	44	32	10	5	2	6	2	202(10 -8)
	Total	26	72	344	654	426	185	62	38	20	37	2	1,866(100%)

Figures in brackets indicate percentage.

APPENDIX IV

Cuttack City: Production, sales, receipts and expenses, etc., of industrial establishments in 1954-5

	Name of the industrial	5			א	lo. of p	ersons	engage	đ			Total	Value of total capital		Amount
 	establishments	ample	Fam	ily men	ibe rs	E	mploye	es		Total	, ,	casual			borrowed
S. No.		No. of si surve	Male	Female	Total	Male	Female	Total	Male	Female	Total	and piece- rate workers	Fixed	Working	(in Rs.)
1	Restaurant	43	58	17	75	25	·	25	83 -	17	100		1.388 -62	608 -00	612-00
2	Hotel	19	26		26	53	1	54	79	1	80		1.038 .50	7.439 -00	3.000-00
3	Baramaja, (preparing and selling	2) 1	1	_	1		_	<u> </u>	1		1	-	20-00		
4	Chana Chur, (preparing and selli	ng) 1	1		1	-		·	1 :	—	1		3.00		
\$	Bakery	2	3		3			-	3		3		12.00	· ·	·
6	Goldsmithy	32	65		65	30		30	95		95	20	470.50	6.580-05	6.530-00
7,	Mason	· 35	37		37 -		·		37		37		47.37		
8	Dairy	9	16	5	21	2		2	18	5	23		48.12	352-00	220 -00
9	Carpenter	15	22		22	6		6	28	_	28		107 -00	2,920-00	3,000-00
10	Pottery	11	21	3	24	3	_	3	24	3	27	7		3,076-05	10,000 -00
11	Fishing,	20	43	1	44 -		-		43	1	44		138 - 50	72.50	140-00
12	Weaving	29	41	32	73				41	32	73	7	144-00	1,384-00	250-00
13,	Tailoring	28	38	· 2	40	5		5	43	2	45	1	1.693 -69	2.023 -00	3.375-00
14	Dlacksmithy	6	8	<u> </u>	8	1	 .	1	9	_	9		5-00	82.00	10-00
15	Eamboo-work	、 7	11	7	18	. —	·		11	7	18		44-00	55-00	
16	Horn-work	5	6		6		_		6		6		95-00	155-00	
17	Painting and polishing	2	3		3				3		3		_	-	
18	Block making	2	2	-	2	2		2	4		4	_	_	250 00	-
19	Fireworks	1	2		2				2		2				
20	Manufacture of palm leaf walls	2	3		3		·	_	3	—	3	·	- 3-00	15-00	• • • • • • • •

TABLE NO. C.27—(Contd.)

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Cuttack City: Production, sales, receipts and expenses, etc., of industrial establishments in 1954-5

	Name of the industrial establishments	S	No. of persons engaged									Total	Value of total capital		
		No. of sample surveyed	Family members			Employees			Total			no. of casual	Investme	nt (in Ks.)	Amount borrowed
S. No.			Male	Female	Total	Male	Feniale	Total	Male	Female	Total	and piece- rate workers	Fixed	Working	(in Rs.)
21	Preparing and selling of gundi	1	1	1	2				1	1	2			50.00	
22	Manufacture of lime from shells	1	3		3				3		3		50 -00	500.00	
23	Preparing and selling cow- dung cakes	1	.	1	1		.		·	1	1	••••••	0.75	_	
24	Selling meat	2	4	, 	4				4		4			· 160 ·00	
25	Brass pot making	2	3		3			—	3	_	3		46 .00	90.00	_
26	Tin repairing	1	2		2				2		2		1 .05	5.00	
27	Washerman (laundry)	1	1	1	2	1		1	2	1	3		47 ·00	50.00	40 .00
28	Manufacture of medicines	6	7	1	8	.6		6	13	1	14	. 	3.00	265.00	·
29	Idol making	7	7	· 1	8	1	<u>نىت</u> ،	1	8	1	· 9		25.00	67 .00	
30	Cloth-dyeing	2	5	·	5	15		15	20		20		18,072 .00	20,325 .00	·
31	Tying ornaments by thread	2	-2	2	4				2	2	4			205.00	·
32	Book-binding	2	2		2			,	2		2		-	3.00	<u></u>
33	Manufacture of oil by ghani	3	3	4	7	1	_	1	4	4	8	·	74 .00	35.00	50 · 00
34	Shoe-making	- 9	11		.11	.—	· <u> </u>		11		°, 11		—	104 ·00	466 ·00
35	Tea preparing and selling	2	2		2				2	 .	2	·	2.00	10.00	
36	Tiffin preparing and selling	1	1		. 1		·		1		1		4.31	1.00	140 .00
37	Confectionary	1	3		3	6		6	9	· — .	9		7,500 .00	1,000.00	.
38	Silversmithy	1	2		2	—	· · ·	. 	2		2	· <u> </u>	•	<u> </u>	1,200 .00
<u>3</u> 9	Flower garland making and selling	3	4	4	8			-	4	4	. 8		3 • 25	6 :00	

APPENDIX IV

F...25
Cuttack City: Production, sales, receipts and expenses, etc., of industrial establishments in 1954-5

	Nome of the industrial	t- ted			No. o	f person	is engi	nged				Total	Value of	total capital	Amount
.0	establishment	f san urve)	Fam	ily me	mbers	E	mplaya	es		Tot	al	no.oj casual		ent (in K3.)	• (in Rs.)
S. N	, `	No. 0 ples s	Male	Female	Total	Male	Female	Total	Male	Female	Total	and piece rate workers	Fixed	Working	
40	Paper packets making	2	2	1	3		_		2	1	3		_	40 -00	
41	Hair cutting saloon	4	6	_	6	2		2	8	_	8		480 -00	3 - 50	125-00
42	Aerated water preparing	1	1		1				1	_	1			100-00	
43	Hair oil preparing and selling	1	ĩ		1	5	_	5	6		6			8,000-00	
44	Repairing of fountain pens	1	2	_	2	_			2		2				
45	Repairing of umbrellas	3	3		3	_		_	3		3		4 -05	25-00	
45	Gunny repairing	1	1		1				1	-	1		-	4 -00	
47	Printing press	1	1	1	2	2		2	3	1	4			250-00	2,000-00
48	Hat making	1	1	-	1	_			1		1	2			
49	Contractor	2		-	_						-			_	
50	Bidi making	2	2	-	2				2		2	—	2 • 50		
51	Gudakhu manufacturing	1	3		3	_		·	3	-	3			500-00	3,000-00
52	Tin-smithy (making)	2	3	—	3				3		3.			12 -00	
53	Rickshaw repairing garage	3	4	_	4			_	4		4	-			
54	Watch repairing	2	2		2				2	_	2	_		300-00	_
55	Cycle repairing	3	2		2		—	-	2		2		5 -00	15-00	
	Grand Total	348	504	84	588	166	1	167	670	85	755	37	31,578 -21	57,137 -10	34,158 -00

Cuttack City: Production, sales, receipts and expenses, etc., of industrial establishments in 1954-5

					Expe	nses during	last year (ii	ı Rs.)				
S. No.	Wages and salaries paid	Raw mate- rials used	Fuel and power charges	Water charges	Transport expenses	Selling cost	Rent paid	Taxes paid	Mainte- nance and repairing expenses	Total expen- ses (exclud- ing depre- ciation)	Deprecia- tion charges	Total (including depre- ciation)
1	8,004 .00	88,084 ·48	9,591 •50	276 ·00	118 - 50	15.00	4,245 ·00	594 •96	73 ·00	111,002 •44	650 ·95	111,653 • 39
2	12,669 .00	74,543 •62	9,705 .88		781 ·00		6,170 •00	1,057 •00	425 · 00	105,351 •50	498 ·41	105,849 •91
3		286 ·00	26 ·25	-						312 - 25	7 •61	319 •86
4		574 ·00	9 0 ∙00		., 		—			664 ·00	1 •97	665 ·97
5	<u> </u>	2,064 .00	107 • 35	—			—	58 ·00		2,229 •35	0.96	2,2 30 • 31
6	14,820 .00	122,924 •64	3,728 •50			315.00	3,516 ∙00	259 •62	137 .00	145,700 • 76	617 • 11	146,317 .87
7				_	_			24.00	126 ·00	150 ·00	111 • 50	261 · 50
8	360.00	9,299 •00	865 ∙ 00				120.00	216 ·75		10,860 •75	70 ·41	10,931 •16
9	3,822 20	22,997 · 50	96 ·00	—	517 · 00		·	5.00	105-00	27,542 ·70	155 • 57	27,698 ·27
10	1,100 .00	2,831 .00	3,574 .00	5.00	22.00	20.00	20.00	104 •87	20.00	7,696 •87	154 ·38	7,851 ·25
11		349 •25	30.00		· —		60 .00	167 ·00	135 ·00	741 •25	291 ·16	1,032 -41
12 ·	652 ·00	40,115 ·00	° 692 ∙50	-	·		550 ·40	125 ·62	123 ·00	42,258 ·5 2	187 •57	42, 446 •09
13	3,150 .00	10,525 •28	730 ·25		<u> </u>	3 .00	600 .00	261 •56	611 .00	15,881 ·09	840 ·37	16,721 ·46
14	360 ·00	2,305 •00	293 · 05			-	72 ·00			· 3,030 ·05	6 • 53	3,036 • 58
15		1,530 .62			·		24 ·00		9 • 50	1,564 •12	2.25	1,566 • 37
16	480.00	2,594 .00	185 ·50		40 ·00		·		15·00	3,314 • 50	77 ·40	3,391 •90
17									· · ·	· · · · ·	16·11	16 • 11
18	600 · 00	765 •37	95.00	· '	60.00	30.00		18.00	50 •00	1,618 ·37	1 • 39	1,619 •76
19	500 · 0 0	245.00		_	·	5 -00	36.00	62.00	3.00	851 -00	2.85	853-85
20	 1 .	470 .00						7 -05	3 • 50	480 ·55	4 •86	485 ·41

APPENDIX IV

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Cuttack City: Production, sales, receipts and expenses, etc., of industrial establishments in 1954-5

					Exţ	oenses duri	ng last year (in Rs.)							
S. No.	Wages and salaries paid	Raw mate- rials used	Fuel and power charges	Water charges	Transport expenses	Selling cost	Rent paid	Taxes paid	Mainte- nance and repairing expenses	Total expen- ses (exclud- ing deprecia- tion)	Depre- ciation charges	Total (includ- ing depreci- ation)			
21		1,440 .00	20.00	-		······································				1,460 -00	0.78	1,460 .78			
22	250.00	2,012 -00	300-00	-	300-00			240-00	2.00	3,104-00	24 • 74	3,128.74			
23		·				_	. —				0.75	0.75			
24		7,100 .00	10.00		150-00		180 -00	300-00	10-00	7,750-00	12 - 17	7,762 .17			
25		1,881-00	70-00		_	—	_		19-00	1,970-00	26 . 75	1,996 .75			
26	- Alexandre - A	87 - 25	15-00							102 - 25	1-91	104 • 16			
27	600-00	214 - 50	320-00		_		240-00			1,374 -50	8.95	1,383 -45			
28	1,284 -00	3,666 .00	479 -00			178-00	240-00	6 -00	37-00	5,890-00	115-08	6,005 -08			
29	300-00	2,065 - 50	447-00	·				38 -00	_	2,850 .50	50 · 35	2,900 .85			
30	7,385 .00	33,446 • 87	1,705-00		500-00		1,800-00	253-00	215-12	45,304 -99	543 - 59	45,848 - 58			
31		288.75	5-00				240 -00	21 - 62	5-00	560 - 37	6 -68	567-05			
32		59 -00	4 - 50					2 -00	5-50	71-00	3 -65	74 -65			
33	300-00		<u> </u>		82-00			25-00	130-00	537-00	80 -85	617 ·85			
34		4,136 - 75	_				72 -00		46 -00	4,254 • 75	16-61	4,271 - 36			
35		1,207 • 50	32 -00		-	 `		_	_	1,239 - 50	9 -00	1,248 .50			
35		250-00	50-00		_				2 -00	302 -00	5.25	307 - 25			
37	90-00	1,295 -05	94-00		130 -00	10-00	—	120-00	_	1,739-05	1,176 -66	2,915 -71			
38	·	50 -00	700-00		-	—	300-00		400 -00	1,450-00	101 <i>-</i> 25	1,551-25			
39		535-50	15-00	-		-	_	—	1 -50	552-00	14-34	566 - 34			
40		1,134-00	-		~ .		-			1,134 -00	3 • 74	1,137 -74			

ECONOMICS OF A MULTI-PURPOSE RIVER DAM

Cuttack City: Production, sales, receipts and expenses, etc., of industrial establishments in 1954-5

3			-		Exp	enses dur	ing last year	(in Rs.)				
S. No.	Wages and salaries paid	Raw mate- rials used	Fuel and power charges	Water charges	Transport expenses	Selling cost	Rent paid	Taxes paid	Mainte- nance and repairing expenses	Total expenses (exclud- ing deprecia- tion)	- Depre- ciation - charges	Total (including deprecia- tion)
41	933 ·33	320 .00	95.05		135.00		720.00	28.06	177.00	2 408 .44	78.36	2 486 .80
42	240.00	80.00				-		28.00		348.00		348.00
43	2,820.00	7,000.00	370.00	_	300.00	4.000.00		371.05	150.00	15 011 05	103-05	15 114 .10
44		2,616.00		_			90.00		1.00	2 707 .00	3.01	2 710 .01
45		293.31	-	_				9.50	6.00	308.81	5.83	314.64
46		100.00								100.00	1.00	101.00
47	1,200 .00		120.00	,			65.00	15.00		1 749 .00	275.16	2 024 .16
48	800.00	940 .00			5.00			8.00		1 753 .00	11.09	1 764 .09
49							_			1,755-00		1,704 07
50				· ·					1.00	1.00	0.83	1.83
51	24.00	503 - 05	53 . 25		12.00	-		12.00	5.00	609.30	2.68	611.98
52		2.906.00	245.00		30.00			12 00	100.00	3 281 -00	44.65	3 325 .65
53								24.00	25.00	<i>3</i> ,281 00	3.02	52.02
54					_	 	60.00	24 00	5.00	65.00	6.35	71.35
55		160.00	3.00				84 •00		5.00	252.00	36.17	288 •17
Gran		· · · · · · · · · · · · · · · · · · ·						······				
Total	62,743 • 53	458,640 · 79	34,963 •58	281 .00	3,182 .50	4,576-00	19,504 ·40	4,462 •66	3,184 •12	591 , 538 ·58	6,473 •66	598,012 ·24
							•		•			

APPENDIX IV

TABLE NO. C.27-(Contd.)

No.	Value of total pro- duction last year	Value of sale last year	Receipts from repairs last year	Receipts from wages last year	Total gross receipts last year	Net income last year
s.	(in Rs.)	(in Rs.)	(in Rs.)	(in Rs.)	(in Rs.)	(in Rs.)
1	161,844 ·37	161,844 ·37	_		161,844 •37	50,841 -93
2	130,062 .00	128,562 .00			128,562 -00	23,210 .50
3	832 .50	832 .50		•	832 - 50	520 ·25
4	1,080 00	1,080 -00			1,080 -00	416-00
5	2,875 -00	2,875 -00			2,875-00 ′	645 - 65
6	99,381 .25	144,381 -25	6,570 -00	47,681 -25	198,632 - 50	52,931 -74
7	\		5,980 -00	13,060 -00	19,040 -00	18,890-00
8	19,595 .00	19,595-00			19,595-00	8,734 ·25
9	46,545 .00	46,545 -00	8,065 -00	1,720 -00	56,330 -00	28,787 ·30
10	14,701 -25	12,456 -25			12,456 • 25	4,759 - 38
11	16,675 00	16,675 -00	100 -00	—	16,775 -00	16,033 ·75
12	58,869 ·25	58,854 ·25		1,062 • 50	59,916 • 75	17,658 -23
13	7,390-00	7,390 00	1,002 -00	24,545 •75	32,937 -75	17,056 -66
14	4,760.00	4,760-00	450 -00	120-00	5,330-00	2,299 -95
15	4,325 -00	4,200-00			4,200-00	2,635 .88
16	5,600 -00	5,600-00		800-00	6,400 -00	3,085 ·50
17				1,050 -00	1,050 -00	1,050 -00
18	4,425 -00	4,425-00			4,425-00	2,806 -63
19	2,405 .00	2,405 -00			2,405 -00	1,554 -00
20	555-00	555-00		850-00	1,405 -00	924 -45

Cuttack City: Production, sales, receipts and expenses, etc., of industrial establishments in 1954-5

Cuttack City: Production, sales, receipts and expenses, etc., of industrial establishments in 1954-5

No.	Value of total pro- duction last year	Value of sale last year	Receipts from repairs last year	Receipts from wages last vear	Total gross receipts last year	Net income last year
S.	(in Rs.) .	(in Rs.)	(in Rs.)	(in Rs.)	(in Rs.)	(in Rs.)
21 .	2,400 .00	2,400 .00			2,400 .00	940.00
22	3,960 •00	3,960 .00			3,960.00	856.00
23	125 -00	125.00		_	125.00	125.00
24	10,275 .00	10,275 -00			10,275.00	2.525.00
25	5,500.00	5,500.00			5,500.00	3.530.00
26	2,000 .00	2,000 .00	100.00	_	2,100.00	1.997 .75
27	-			2,694 .00	2,694 00	1.319.50
28	9,190 .00	9,190 .00		1,950.00	11,140.00	5,250.00
29	4,800.00	4,770.00	· · ·	560.00	5,330.00	2,479 .50
30	78,450 · 0 0	78,450.00			78,450.00	33.145 .01
31	1,777 .50	1,777 • 50		and the second se	1,777 .50	1.217.13
32	n an		35.00	490 ∙00	525.00	454.00
33	- .			3.136.00	3.136.00	2,599.00
34	5,494 · 0 0	5,142.00	2,900 00	2.000 .00	10.042.00	5,787 .25
35	1,900 .00	1,900 .00	·	_	1.900.00	660 • 50
36	337 .05	337 .05		· · · · · · · · · · · · · · · · · · ·	337.05	35.05
37	1,860.00	1.860.00		<u> </u>	1.860.00	120.95
38	1,500.00	1.500 .00		· ·	1.500.00	50.00
39	2,291 .87	2.291 .87	50.00		2.341 .87	1.789 .87
40	1,670 00	1,670 •00		<u> </u>	1,670 •00	536.00

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APPENDIX IV

TABLE NO. C.27—(Contd.)

Va N du	lue of total pro- action last year	Value of sale last year	Receipts from repairs last year	Receipts from wages last year	Total gross receipts last year	Net incom <mark>e last</mark> year
·· ·	(in Rs.)	(in Rs.)	(in Rs.)	· (in Rs.)	(in Rs.)	(in Rs.)
41	5,900 00	5,900 00			5,900-00	3,491 • 56
42	478 -15	478 - 15	-	. —	478 - 15	130-15
43	30,000 .00	25,000 00	-	·	25,000 -00	9,988 -9 5
44	2,800 .00	2,800 -00	2,500.00	-	5,300-00	2,593 -00
45	-		2,010 .00	•	2,010 -00	1,701 - 19
45	-		700 -00		700-00	600-00
47	2,000 -00	2,000 -00 -			2,000-00	251-00
43	2,500 -00	2,200.00			2,200 -00	447 -00
49	-				-	
50			—	798 -00	798 -00	797 -00
51	960 •00	. 960 •00			960 -00	350 • 70
52	7,500-00	7,500 -00		625-00	8,125-00	4,844 -00
53	tonus.		1,200 .00		1,200-00	1,151 -00
54			730 -00		730 -00	665-00
55			1,000 -00	-	1,000-00	748 -00
Grand Total	767,589 -19	8 03,022 ·19	33,392 -00	103,142 • 59	939,556 -69	348,018 -11

Cuttack City: Production, sales, receipts and expenses, etc., of industrial establishments in 1954-5

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Contal		ents	Tetal	4		No	. of p	ersor	ıs en	ıploy	ed	Exper	nses during la	ist year (in	Rs.)
No.	Name of trade	stablishm	capital invested	Approxi- mate value of store on the day of	annual turnover	Fan memi	ily bers	Emj ye	plo- es	Tot	al	Wages and salaries	Rent paid (shop and	Light charges	Total
		No. of e surveyed	(<i>Rs</i> .)	visit (Rs.)	(<i>Rs</i> .)	Male	Female	Male	Female	Male	Female	paid	2000		
1	Stationery shop	7	3,550 ∙00	2,700.00	37,000 ·00) 8		_		8			1,291 •25	252.00	1,543 -25
2	Vegetable shop	25	1,553 .00	814 ·05	99,840 ·00	0 31	. —	3		34	-	900 •00	724 •96	374 •00	1,998 -96
3	Grocery shop	65	57,940 •00	75,140 .00	898,680 ·O	0 93	4	27	·	120	4	14,616 •00	10,848 .00	3,160 • 37	28,624 · 37
4	Pan, biri shop	48	2,999 .00	1,874 •00	115,750-0	0 59	6	2	<u> </u>	61	. 6	816-00	2,502 ·00	1,841 -25	4,799 ·25
5	Timber and fuel wood shop	2	3,500.00	12,000 .00	33,000-0	03		2		5		1,200 .00	58.00	40 •00 .	1,298 .00
6	Cloth shop 🖌	14	59,950.00	119,150.00	376,949 •0	0 29	<u> </u>	7		36		4,740 -00	4,158 .00	2,136 -00	11,034 .00
7	Fish selling	. 9	268 00	33.00	36,000 •0	0 9	_ <u></u>			9	. 	· ·	282.05	124 •05	406 • 10
8	Hardware stores .	5	32,050.00	5,250.00	162,800 •0	05		1		6		1,200 .00	324.00	272-05	1,796 .05
9	Kerosene selling	7	71.00	47 09	20,720 .0	0 8	· <u> </u>			8		<u> </u>			<u> </u>
10	Medicine shop	12	59,100 .00	71,700 .00	141,200 •0	0 13		17		30		8,220 ·00	5,482 00	1,236 .00	14,938 · 0 0
11	Milk selling	. 4	147 ·00	22.87	7,500 .00) 6	2	, 		6	2	· ·	<u>.</u>		-
12	Meat shop	4	300 · 00	40 ·00	20,500 .0	0 4	· · · · · · · · · · · · · · · · · · ·			4	· . 		343 -62	15.00	358 •62

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Cuttack City: Turnover, expenses, etc., of trading establishments dealing in different commodities in 1954-5

APPENDIX IV

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Cuttack City : Turnover, expenses, etc., of trading establishments dealing in different commodities in 1954-5

Conial		ents	Total	4	Tatal	Na	. of [perso	ons en	nploy	re I	Expe	uses during la	st year (in	Rs.)
No.	Name of trade	stablishm	capital invested	Approxi- mate value of store on the day of	annual turnover	Fai mem	nily bers	Em ye	iplo - es	Та	ota l	Wages and	Rent paid (shop and godown)	Light charges	Total
L.		No. of e. surveyed	(<i>Rs</i> .)	visit (Rs.)	(<i>Rs</i> .)	Male	Female	Male	Female	Male	Female	paid	gouownj		,
13	Ornament shop	4	155,150.00	151,200-00	367,700-00	7		4		11		8,400 -00	2,700 -00	240.00	11,340-00
14	Aluminium utensil shop	2	850-00	2,020 .00	13,000 -00	2	_			2				102-00	102-00
15	Hotel	3	87 -00	45 -00	4,800-00	3		_		3			-	24 -00	24 -00
16	Book shop	2	13,000 -00	28,500 ·00	55,000-00	2	_	8		10	_	3,480-00	1,920.00	168-00	5,568-00
17	Newspaper selling	1	250.00	10.00	2,400 -00	1	_	-		1					·
18	Flower selling	1	1-05		200-00	1				1	_				
19	Slippers (leather) selling	1	300.00	100-00	2,200 -00	1	—		_	1		-	5-00	2-05	7 -05
20	Electrical goods selling	1	3,500-00	3,000 -00	3,600-00	1		_	—	1				120-00	120-00
21	Hen and eggs selling	1	61 -00		1,200-00	1				1					
22	Selling papers	1	50,000-00	100,000 -00	300,000 -00	1		4		5	_	5,400-00	1,920-00	240-00	7,560-00
23	Horn article selling	1			220 -00	1				1	-	-			
24	Selling grass	1	1.00	0.25	240-00	1	-	_		1	_				
25	Rickshaw hiring	1	500 -00		400 -00	1		-		1		-			-
<u> </u>	Total	222	445,128-05	573,646 ·26	2,698,899 -00	291	12	75		366	12	48,972 -00	32,558 -88	9,986 •77	91,517-65

APPENDIX IV

PURI

Population: In 1951 the population of Puri town was 49,057, only 233 persons less than in 1901. The census populations of Puri town up to 1941 were *de facto* populations and they were swelled by the presence of pilgrims in the town. To assess the variations in the permanent or *de jure* population of the town the 1931 Census Superintendent of Bihar and Orissa constructed the following table:*

-		1891-1901	1901-1911	1911-1921	1921-1931	1901-1931
1.	Actual variation	+20,540	9,648		-1,126	—11,766
2.	Variation in the number of pil- grims	+15,000		2,750	—250	—15,000
3.	Variation in the permanent popu- lation	+ 5,540	+2,352	+1,758	—876	+3,234

The increases from 1901 were of small magnitude and a slight decline was recorded in the decade 1921–31. During 1931-41 there was an increase of 3,487 persons followed by a substantial one of 8,002 during 1941-51. (No figures regarding pilgrims, etc. are available for these two censuses.) In 1931-41 about 60 per cent of the increase was among males and the rest among females. During 1941-51, however, males accounted for less than half of the total increase in the population.

The population of our sample was 4,678 and estimating from this we get a population of 46,780 as our sample consisted of 10 per cent households. Allowing for non-coverage, etc. this gives a population estimate of about 50,000 in 1954, slightly higher than in 1951.

The fluctuations in the male and female populations noted above are reflected ' in the changing sex-ratio of the population of the town. The following gives the number of females per 1,000 males in the population of Puri town for all censuses beginning with 1901.

	No.	of female	s per 1,00	0 males	
1901	1911	1921	1931	1941	1951
905	734	772	840	810	850

In our sample there were 943 females to 1,000 males. This was much higher than the 1951 figure, but it was not unexpected because our sample was a

* Census of India, 1931, Vol.VII, Bihar & Orissa, Part I, Report, p. 97.

household sample and excluded the predominantly male population of vagrants and inmates of public institutions.

Size of the family: Table No. P.14 gives the distribution of sample families by their size. The average size of the family was 4.3. The size of the families in the sample presented a normal distribution. Nearly half the families were to be found in the class of families with two, three, and four members each and they were found to be almost equally divided in these three size-classes. The total number of sample families in each of the classes of families with more than four members were successively smaller. Uni-member families formed 13 per cent of the total sample families.

Caste composition: Table No. P.15 gives the distribution of the heads of sample families according to the castes to which they belonged. The biggest single group in the population of Puri was of Brahmins who constituted nearly one-fourth of the total. Next to them came Kayastha or Karan who were about 18 per cent. The Scheduled Castes accounted for slightly more than 13 per cent of the total and the artisan castes about 10 per cent. There were only a very small percentage of persons of other religions in the town. Almost 85 per cent were Caste Hindus. The predominance of Brahmins in a religious town like Puri was not unexpected. The non-Oriya castes formed a little less than three per cent of the total population.

Earners and non-carners: Table No. P.17 gives the distribution of the sample population by age for carners and non-carners separately. Table No. P. 16 gives a sexwise classification of carners and non-carners. About onethird of the total population in the sample was of carners and the rest of non-earners, the ratio of carners to non-earners being 1:2.1. Among males there were 1.26 earners per one non-carner, while among females there were 11.4 non-earners to every carner. For one female earner there were 7.3 male carners.

There were 74 unemployed persons in the sample who formed about 5 per cent of the total carners. Nearly 55 per cent of them were of ages between 16 and 25 years, *i.e.* they belonged mainly to the young age groups indicating that many of them were new entrants into the labour-force seeking their first jobs.

Among the carners as a whole the proportion of persons in the prime of life was very high. Nearly 69 per cent of the total earners were between the ages of 21 and 50 years. Juvenile earners (below 15 years) numbered 32 and constituted two per cent of the total earners.

Occupational distribution of earners: Table Nos. P.-18, 19, 25 and 26 give the distribution of earners according to occupations, earner status, education, earning, age, and sex. In the following we comment on each of these aspects.

The general occupational picture was very much undifferentiated. Nearly 38 per cent of the total earners were found in the services, about 22 per cent in trade and commerce, and 15 per cent in manufacturing. A further nearly eight per cent were in agriculture, etc. These four classes together accounted for nearly 80 per cent of the total earners. In the remaining occupations there were very small proportions of the total earners in the sample.

The undifferentiated character of the occupational distribution is clearly brought out if we examine further the composition of each of these major groups. In the services group, which was the largest in the lot, 42 per cent of the constituents were those performing religious services, while a further 21 per cent were in government service. The predominance of religious services in a religious town was quite natural. So also, Puri, being district centre, there was a large number of government employees. The next largest group, trade and commerce, was almost wholly composed of retail traders, and nearly 40 per cent of these were dealing in grains and grocery. This only showed that Puri was not a trading place of any importance. The trade there mainly catered to the local needs. In the next large group, manufacturing, the only sizable group was that of sweetmeat makers accounting for 16 per cent of the total in the group. This was again connected with the religious character of the town and mainly related to the temple of Jagannath. In the next group of those engaged in agriculture and allied pursuits nearly two-thirds were engaged in fishing and the rest in the cultivation of cereals. There was nothing very much to comment upon in the remaining small groups.

Occupations and carnings: The earnings during the preceding year of earners in sample families classified by occupations are given in Table No. P.19. As the occupations are not very differentiated, as remarked earlier, we shall confine our comments to the broad industrial groups only. This procedure is departed from only in a small number of cases. In Table No. P.20 the 1st, 2nd, 3rd quartile earnings in different divisions are also given.

In agriculture, etc. 52 per cent of the earners were in the earning range Rs. 251-500, and a further 21 per cent in the next range of Rs. 501-1,000. The median income was Rs. 421. In manufacturing the median earning was Rs. 335, the ratio between the 1st and the 3rd quartile earnings being 1 : 3.17. The median income was Rs. 425 with the third quartile earnings, 2.74 times that of the first quartile earnings.

In services there was a wider dispersion of earnings partly because of its heterogeneous and miscellaneous character. The median earnings were Rs. 487, and the middle 50 per cent of earnings ranged from Rs. 262 to Rs. 921. The ratio of first to third quartile earnings was 1 : 3.5.

Family incomes: Information regarding total family income is presented in Table No. P.21 which presents the total income of families classified by the industry and occupations of their heads.

A little less than 40 per cent of the sample families were concentrated in the income range between Rs. 501 and Rs. 1,000. A further 25 per cent were in the range Rs. 251 to Rs. 500. The median income was about Rs. 720. The per capita income came to about Rs. 360.

No. of members in the family	Total no. of families	Per cent to the total		
j	151	13 • 1		
2	191	16.5		
3	184	15-9		
4	198	17 • 1		
5	. 149	12.9		
6	127	11-0		
7	60	5.2		
8	40	3.5		
9	24	2 · 1		
10 and above	30 ·	2.6		
Not stated	1	0 • 1		
Total	1,155	100 .0		

Puri Town : Distribution of sample families according to size

TABLE NO. P.15

Puri Town : Sample families classified by caste and community

Serial No.	Castes	Total families	Per cent of the total
1	Brahmins	286	24 .8
2	Karan, Kayastha	211	18 - 3
3	Khatriya, Khandayat	58	5.0
4	Chasa, Pradhan	82	7.1
5	Artisan castes (*1)	114	9.9
6	Keuta (fisherman)	12	1.0
7	Gauda (milkman)	26	2.2
8	Gudia, Kumuti (trading community)	38	3.3
9	Other Oriya Caste Hindus (*2)	112	9.7
10	Non-Oriya Caste Hindus	34	2.9
11	Scheduled Castes	157	13.6
12	Scheduled Tribes	3	0.3
13	Muslims	16	1 • 4
14	Other religions	5	0.4
15	Not stated	1,	0 · 1
	Total	1,155	100.0

*1 This includes Teli 38, Tanti 24, Kumbhar 19, Dania 18, Dadhai 7, and other artican castes 8.

*2 This includes Jyotish, Jogi 22, Ehandari 25, Eaisya 15 and the rest other Caste Hindus.

Sex	Earners	Non-earners	Total
Male	1,339	1,065	2,404
	(55 ·7 %)	(44 ·3 %)	(100%)
Female	178	2,092	2,270
	(7 ·8 %)	(92 ·2 %)	(100%)
Unspecified		13 (100%)	13 (100 %)
Fotal	1,517	3,170	4,687
	(32 ·4%)	(67 ·6%)	(100 %)

Puri Town: Sex distribution of the sample population into earners and non-carners

TABLE NO. P.17

Puri Town: Age distribution of the sample population according to earners and non-earners

Age	Ear	ne rs	Non	-earners	Uner pe	nployed rsons	Total		
groups (years)	No.	Per cent to the total	No.	Per cent to the total	No.	Per cent to the total	No.	Per cent to the total	
0- 5	1	0.1	663	20 •9			664	14 • 2	
6-10	4	0.3	562	17 • 7		·	566	12 .1	
11-15	27	1 • 9	416	13 •1	7	9.5	450	9.6	
16-20	99	6.8	322	10 · 2	25	33.8	446	9.5	
21-25	155	10 • 7	216	6.8	16	21.6	387	8.3	
26-30	204	14 • 1	188	5.9	8	10.8	400	8.5	
31-35	164	11.4	137	4.3	4	5 • 4	. 305	6.5	
36-40	212	14 • 7	168	5.3	3	4.0	383	8 • 2	
41-45	156	10 • 8	104	3.3	5	6.8	265	5.7	
46-50	156	10 .8	108	3 • 4	i: —	_	264	5.6	
51-55	94	6.5	55	1 .8	3	4.0	152	3.2	
56 and above	170	11.8	229	7 • 2	1	1 •4	400	8.5	
Not stated	1	0 • 1	2	0.1	2	2.7	5	0.1	
Total	1,443	100 •0	3,170	100 •0	74	100 .0	4,687	100 •0	

Puri Town : Occupational distribution of earners in the sample

Serial i	No. Main industry	Male	Female	Total
1	Agriculture, livestock, forestry, fishing, and hunting	101	11	112 (7 •8 %)
•2	Manufacturing	175	45	220 (15 ·2 %)
3	Construction	38	3	41 (2 ·8 %)
4	Electricity, gas, water, and sanitary services	31	21	52 (3 ·6%)
5	Distributive services (trade and commerce)	276 _.	36	312 (21 ·6%)
6	Transport, storage, and communications	55	. 2	57 (3·9%)
7	Services .	512	33	545 (37 ·8 %)
8	Activities not adequately described	. 68	12	80 (5·6%)
9	Not stated	9	15	24 (1 ·7%)
	Total	1,205	173	1,443 (1CO %)

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F.... B Puri Town : Distribution of earners in the sample classified by industry, according to their total annual in-come in 1954-5

Serial -			· · · · · · · · · · · · · · · · · · ·		·····	Income	(in Rs.)					•	No. of
No.	1 to 150	151 to 250) 251 <i>to</i> 500	501 <i>to</i> 1,000	1,001 <i>to</i> 2,000	2,001 <i>to</i> 3,500	3,501 <i>to</i> 5,000	5,001 <i>to</i> 7,500	7,501 <i>to</i> 10,000	<i>Above</i> 10,000	Not stated	Total	- earners who have also re- ported
				5 ž	, ,			•			· .		other than cash income
1	5	10	60	24	2	1				—	10	112	2
•	(4 • 5 %)	(8 •9%)	(53·6%)	(21 ·4%)	(1 • 8%)	(0.9%)			. •	× .	(0.9%)	(100%)	
2	20	36	73	54	11	4	11	3	. 7	· · · · · ·	. 1	220	· 1
1.4	(9 •1 %)	(16.4%)	(33 • 2%)	(24 • 5 %)	(5.0%)	(1 •8%)	· (5 •0%)	(1 •4%)	(3.2%)		(0.4%)	(100%)	•
3		3 -	17	21	 .					<u> </u>		41	·
•	•	(7.3%)	(41 •5%)	(51·2%)	•			^				(100%)	
4	•	7	36	9					 .			52	~
	÷.,	(13.5%)	(69·2%)	(17.3%)	•					•		(100%)	
5	9	50	109	107	16	9	3	8	1	<u> </u>		312	3
• •••	(2.9%)	(16.0%)	(34.9%)	(34.3%)	(5.1%)	(2.9%)	(1.0%)	(2.6%)	(0.3%)			(100%)	•
6	2	3	17	29	6				· · · · · · · · · · · · · · · · · · ·	Ĩ,	· · ·	57	·
**	(3.5%)	(5.3%)	(29.8%)	(50.9%)	(10.5%)			2 '	1			(100%)	
7	66	58	146	147	62	33	6	6	1		20	545	28
	(12.1%)	(10.6%)	(26.8%)	(27.0%)	(11.4%)	(6.0%)	(1.1%)	(1.1%)	(0·2 [*] %)		(3.7%)	(100%)	
- 8	5	14	39	15	4	2	_		`		1	80	1
-	(6.3%)	(17.5%)	(48.7%)	(18.7%)	(5.0%)	(2·5%)			•	tta pa ree	(1.3%)	(100%)	•
9	8	8	6	1			· · · · ·	— .	· · · · · · · · ·		1	24	. 9
-	(33.3%)	(33.3%)	(25.0%)	(4·2%)	• • •						(4 • 2%)	(100%)	• • •
	115	189	503	407	101	49	20	17	9		33	1,443	44
Total	(8.0%)	(13 •1%)	(34.8%)	(28·2%)	(7.0%)	(3.4%)	(1.4%)	(1·2%)	(0.6%)	:	(2.3%)	(100%)	

APPENDIX IV

Puri	Town:	Quartile	incomes	of	earners	in_	indust	ry-groups	ļ
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	Serial No.	1st quartile income (Rs.)	Median income (Rs.)	3rd quartile income (Rs.)	
	1	300 -42	420 -83	687 • 50	
	2	247 - 22	334 -93	785 -71	
	3	384 -62	500-00	761 -90	
	4	291 -67	381 -94	472 - 22	
4	5	295 - 87	474 ·77	810-19	
	6	382-36	586-21	827 - 59	
	7	262 -41	487 · 16	920 ·9 2	
	8	256 -41	384 .62	566 -67	•
•	9	107 -81	193.75	302 -08	
<u>.</u>	Total	274 • 23	9 , 449 • 55	· 807·80	

TABLE NO. P.21

Puri Town: Total incomes of sample households classified according to the industry of the head

·	Seria l No.	No. of households	Total income of the households (Rs.)	
	1	80	60,440	
•	2	150	110,790	
	3	36	23,760	
	4	33	20,960	
	5	206	215,720	
	6	47	33,990	
	7	433	611,330	
	. 8	51	39,610	
	9	119	102,510	
	Total	1,155	1,219,110	

Total No. of persons in the sample households: 4,637 Income per capita: Rs. 253-13.

APPENDIX IV

TABLE NO. P.25

Serial No.	Employees	Casual workers	Self-employed	Employers	Total
			· · · · · ·	· · · · · · · · · · · · · · · · · · ·	
					•
1	12	3	97		112
2	20	50	130	20	220
3		39	2		41
		· · · ·	т <u>,</u>		
4	52	_			\$
	: •		t		
5 _	- 36	7	238	31	312
. 6	12	38	7	,	57
				т.	
7	291	19	217	18	545
8	23	49	8	10-10-	80
, [•] •				•	
9	1	4	19	- *	24
	· -				•
				·	•
				~	
Total	44 7	209	112	6 9	1,443
					· · · · · · · · · · · · · · · · · · ·

Puri Town: Distribution of earners in industry-groups according to earners' status

Puri	Town:	Distributio	m of earn	ers in ind	lustry-grou	ps accord	ing to thei	r education	l.		
Serial No.	Illiterate	Only read and write	Upper primary	Middle English	Up to Matric	Matric	Under- graduate	Graduate	Post- graduate	Not stated	Total
1	80	26	3	2	. 1	enter Ser i	· • •				. 112
2	77	110	9	12	4	4	1	1		2	220
3	14	24	2		 • :	1	-			_	41
4	31	14	3		4		-		-		52
5	47	170	56	16	10	7	4	1	1		312
6	30	19	2	1	2	3			• • · · · · · · · · · · · · · · · · · ·		57
7	75	204	42	62	37	68	10	29 -	17		545
8	45	21	3	6	- 2	. –	*		-	2	80
9	13	• 8	1			1		. 1			24
Tetal	414	596	121	9 9	60	84	15	32	18	4	1,443

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Serial	Name of indus-	s- No. of				No. of	persons e	ngaged				Total No	Value of total		· Amount
No.	trial establish- ment	samples	Fa	mily memb	vers		Employees	5		Total		& piece=	capital investment (in Rs.)		borrowed
			Male	Female	Total	Male	Female	Total	Male	Female	Total	workers	Fixed	Working	
1	Tiffin preparing	20	34	6	40	7		7	41	6	47		748 ·00	338 •00	1,060 .00
2	Carpenter	2	5		· 5			·	5		5	 ,	180 ·00	5.00	
3	Paper packets	1	1		1	-		-	1		1	· · ·	2.00	10 -00	_
4	Painter	۱ <mark>۱</mark>	3		3		-	.	3		3	_	10-00	1-00	
5	Puffed rice	3	· 1	3	4				1	3	4		7 -00	13 .00	
6	Preparing Pottery	14 _	26	8	34				26	. 8	34		3,147 •00	659 ∙00	670 ·00
7	Preparing chana	1	1	2	3		·		. 1	2	3	-			
8	Goldsmithy	· 10	11	-	11	1	—	1	12	_	12	-	1,086 -00	1 ,097 ∙0 0	700-00
9	Tailor	. 3	. 4		· · · · · · · · · · · · · · · · · · ·	_		. —	. 4		4		67 .00	63 -00	400-00
10	Shoemaker	2	. 1		1	.	. 		1	. <u> </u>	1		2 60 ∙0 0	10.00)
	Total	57	87	19	106	8	•••••	8	95	19	114		5,507 .00	2,196 -00	2,830 -00

Puri Town : Production, sales, receipts and expenses, etc., of industrial establishments in 1954-5

APPENDIX IV

Puri Town : Production, sales, receipts and expenses, etc., of industrial establishments in 1954-5

		Expenses during last year (in Rs.)												
Seria No.	21	Wages and salaries paid	Raw mate- rials used	Fuel and power cost	Water charges	Transport expenses	Selling cost	Rent	Taxes	Mainten- ance and repair expenses	Total ex- penses (ex- cluding de- preciation)	Deprecia- tion char- ges	Total ex- penses (in- cluding de- preciation	
1		1,308 ·00	35,835 -47	1,964 •97		30-00		849 -00	130-00	6 -00	40,123 •44	119 - 50	40,242 -94	
2			-	•	-	-	-			10-50	10.50	3327	43 - 77	
3			1,412 -97	4 • 12						0 • 50	i,417.59	0.31	1,417 -90	
4			10-00	-		_			-	1-06	11-06	2-00	13-06	
5			1,861 -46	393 ·12		·			~		2,254 .58	6.79	2,261 • 37	
6			814 ·37	3,760 .12		504 -00	-		42 ·74	2 -93	5,124 .16	22.36	5,146 • 52	
7			427 ·19	37 -00							464 · 19	0.32	464 · 51	
8		240 -00	84 ·57	146 • 75	12-00	-	-	660-00		12.22	' 1,155 ·54	127 -08	1,282 .62	
9			463 ·37	5-00		-		468 -00	8-00	74 -00	1,018 - 37	51 -45	1,069 -82	
10		1,642 -50	1,845 -63	_		333 -00		336-00		10 -75	4,167-88	12-95	4,180 -83	
	Total	3,190 - 50	42,755-03	6,311 -08	12-00	867 -00		2,313 -00	180 -74	117-96	55,747 -31	376-03	56 ,123 ·34	

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Puri Town : Production, sales, receipts and expenses, etc., of industrial establishments in 1954-5

Value of total pro-		Gross receipts		Total gross receipts	Net income last year *
auction last year	Value of sale last year	f sale last year Receipts from repairs Receipts from wag last year last year		last year	
(in Rs.)	(in Rs.)	(in Rs.)	(in Rs.)	(in Rs.)	(in Rs.)
52,165 • 50	52,165 • 50			52,165 • 50	12,042 .06
-		80.00	1,570 .00	1,650 -00	1,639 •50
- 1,480 .00	1,480 .00	_		1,480 .00	62 • 41
40.00	40.00	· · · · · · · · · · · · · · · · · · ·		40.00	28 •94
2,435 .00	2,435 .00			2,435 •00	180 •42
14,875.00	14,875 •00	· · · · · · · · · · · · · · · · · · ·	1 	14,875 .00	9,750-84
626 .00	650 00			650.00	185 - 81
		845 -00	4,017 •28	4,862 • 28	3,706 •74
· · · · · · · · · · · · · · · · · · ·		180 -00	5,623 •75	5,803 •75	4,785 •38
10,280 00	11,000 •00	77,0.00	an a	11,770 .00	7,602 • 12
81,901 -50	82,645 • 50	1,875 .00	11,211 •03	95,731 ·53	39,984 • 22
	Value of total pro- duction last year (in Rs.) 52,165 ·50 - 1,480 ·00 40 ·00 2,435 ·00 14,875 ·00 626 ·00 10,280 ·00 81,901 ·50	Value of total pro- duction last year Value of sale last year (in Rs.) (in Rs.) 52,165 ·50 52,165 ·50 - - - 1,480 ·00 40 ·00 40 ·00 2,435 ·00 2,435 ·00 14,875 ·00 14,875 ·00 626 ·00 650 ·00 - - 10,280 ·00 11,000 ·00 81,901 ·50 82,645 ·50	Value of total pro- duction last yearGross receiptsValue of sale last yearReceipts from repairs last year (in Rs.) $(in Rs.)$ $(in Rs.)$ $(in Rs.)$ $(in Rs.)$ $52,165 \cdot 50$ $$ $ 80 \cdot 00$ $-1,480 \cdot 00$ $1,480 \cdot 00$ $-1,480 \cdot 00$ $1,480 \cdot 00$ $-1,480 \cdot 00$ $ 40 \cdot 00$ $40 \cdot 00$ $-2,435 \cdot 00$ $2,435 \cdot 00$ $2,435 \cdot 00$ $2,435 \cdot 00$ $-14,875 \cdot 00$ $14,875 \cdot 00$ -2 $ -2$ $845 \cdot 00$ $-10,280 \cdot 00$ $11,000 \cdot 00$ $770 \cdot 00$ $81,901 \cdot 50$ $82,645 \cdot 50$ $1,875 \cdot 00$	Gross receiptsValue of total production last year ($in Rs.$)Gross receipts from repairs ($in Rs.$)Receipts from wages last year ($in Rs.$)52,165 ·5052,165 ·5080 ·001,570 ·0080 ·001,570 ·0080 ·0080 ·0040 ·0040 ·002,435 ·002,435 ·00845 ·00845 ·004,017 ·28180 ·005,623 ·7510,280 ·0011,000 ·00770 ·00-81,901 ·5082,645 ·501,875 ·0011,211 ·03	Value of total production last yearGross receiptsTotal gross receipts last yearValue of sale last year (in Rs.)Value of sale last year Receipts from repairs (in Rs.)Receipts from wages last yearTotal gross receipts last year(in Rs.)(in Rs.)(in Rs.)(in Rs.)(in Rs.)52,165 ·5052,165 ·5052,165 ·5080 ·001,570 ·001,650 ·00-1,480 ·001,480 ·0040 ·0040 ·0040 ·002,435 ·002,435 ·002,435 ·0014,875 ·0014,875 ·00650 ·00845 ·004,017 ·284,862 ·28180 ·005,623 ·755,803 ·7510,280 ·0011,000 ·00770 ·0011,770 ·0081,901 ·5082,645 ·501,875 ·0011,211 ·0395,731 ·53

* Gross receipts minus expenses excluding depreciation.

TABLE No. P.28

Puri Town : Turnover, expenses, etc., of trading establishments dealing in different commodities in 1954-5

		ıts	T-A-I	4?	•			perso	ons e	employed Expenses during l			d Expenses during last year (in		in Rs.)
Serial No.	Name of trade	tablishmen ed	capital invested	Approxi- mate value of stores on the day	sotai annual turnover	. Fa men	umily ubers	E/ •)	mplo- vees		[otal	Wages and salaries paid	Rent paid (shop and .godown)	Light charges	Total
•	No. of est	No. of es surveye	(<i>Rs</i> .)	of visit (Rs.)	(<i>Rs</i> .)	Male	Fenale	Male	Female	Male	Female	-			,
1	Selling coconut	3	17.00	23 -05	3,720-00	2	1	_		2	1	· •	90-00		90-00
2	Photo selling	3	232 -00	49 -00	5,170-00	5		-	_	5	_		90-00	38-00	128-00
3	Stationery shop	8	22,851 -00	32,110-00	71,470-00	13		4		17		1,860-00	1,039 -00	579 -00	3,478 -00
4	Cloth shop	6	33,250 -00	70,480 -00	176,650-00	11	_	10	—	21		6,540-00	1,569-00	936-00	9,045-00
5	Medicine shop	6	6,580-00	30,200 -00	106,330 -00	7	_	11		18		9,240-00	2,688 -00	694 -00	12,622 -00
6	Selling earthen pots, etc.	4	65 -00	55-00	11,090-00	4	2			4	2		288-00	30-00	318-00
7	Selling fish	13		31-00	40,350-00	11	16	_	_	11	16		17 - 25	12-00	29 ·25
8	Selling books	4	60-00	.93-00	4,800-00	4	_	_	_	4					
9	Selling fuel	5	682 -00	1,673 -00	12,450 -00	4	1	1		5	1	1,800-00	331-00	78 -00	2,209-00
10	Selling utensils	2	1,060 -00	2,150-00	12,000-00	4				4			180-00	168-00	348-00
11	Selling milk	8	325-00	86-00	29,520-00	12	2			12	2		1,045-00	198-00	1,243 -00
12	Betel shop	26	2,216-00	1,710-12	65,450 ·00	37	3	1		38	3	120-00	1,829 • 56	831 • 75	2,781-31
13	Selling vegetables	24	647 -00	1,270 -62	71,025-00	35	3	1		36	3	135-00	2,079 • 37	691 - 05	2,905 -42
14	Sweetmeat shop	9	860 -00	231-00	23,020-00	13	2	7		20	2	1,147 -00	945 • 50	558 -00	2, 650 · 50
15	Brass utensil shop	3	1,200-00	3,105-00	12,690 -00	4				4			180-00	66 -00	246 -00

ECONOMICS OF A MULTI-PURFOSE RIVER DAM

TABLE NO. F. 20- (Conta.), Puri Town: Turnover, expenses, etc., of trading establishments dealing in different commodities in 1954-5

	•	tts				No	. of	pers	ons	emple	oyed	Expe	uses during	last year (i	n Rs.)
Serial No	Name of trade	ablishmen	Total capital invested	Approxi- mate value of stores on the day	Total annual turnover	Fai me	mily mber	En s y	nplo- vees	7	otal	Wages and salaries paid	Rent paid (shop and godown)	Light charges	Total
		No. of est	vakanıns (Rs.)	of visit (Rs.)	(<i>R</i> s.)	Male	Female	Male	Female	Male	Female	puu	8000,000		
16	Kerosene and petrol selling	6	10.045 .00	40.024 .00	60.578 ⋅00	5		5		10	_	2,640.00	612 ·00	420.00	3,672.00
17	Selling spare parts of cycle, motor, etc.	2	4,500 .00	9,000 00	16,000 .00	3		1		4		900.00	444 •00	120.00	1,464 .00
18	Selling mali, patafuli, etc.	2	85-00	87 •00	5,200.00	5	—			5			84.00	36.00	120.00
19	Selling ornaments (gold-silver)	2	4.100.00	5.775 ·00	12,950.00	4				4		+	534 .00	168 ·00	702 •00
20	Aluminium and iron utensils	4	8,000 00	10,800 .00	39,450 .00	6		. 4		10		1,560 ∙00	1,664 00	552.00	3,776.00
21	Tiffin, tea-stall	11	270.00	79.00	27.440.00	.15	3			15	3	<u> </u>	954.00	372.00	1,326.00
22	Grocery shop	45	15.087.00	18.470.00	335.867.00	62	13	8		70	13	5.100.00	5.456 .25	1.753 - 37	12,309.62
23	Selling vermilion	1	15.00	15.00	1.250.00	1		_		1			·	·	
24	Paper toy selling	1	5.00	5.00	240.00	1				1	<u>.</u>	<u> </u>			·
25	Selling pedi and baskets	1	20.00	10.00	4.300.00	2				2	·			·	
26	Selling flowers	1	0.25	1.05	540.00	1	 .	·		1	, ·				
27	Selling pressed rice, etc.	1	10.00	18.00	2,240.00	1			-	1			. —	24.00	24.00
28	Selling tilak and sipa	1.	55-00	3.00	660.00	1				1			22.05	12.00	34 •05
29	Glass bangles selling	1	400 ·00	500.00	1,590 .00	1		<u> </u>	-	1		· · · ·	. 41 •25	51.00	92 • 25
<u> </u>	Total	203	112,637 •25	228,053 ·84 1	,154,040 ∙00	274	46	53		327	46	31,042.00	22,183 •23	8,388 ·17	61,613 •40

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N = 4.

APPENDIX IV

Adults See family membe	ers		
Earners	339.	354.	373
n . non-			
Unemployed	**		~
Agricultural labourer			308
Earnings seasonal			
Employment "			33
Wages, in cash			
Wages, in kind			* **
Agricultural, planning in			18
Agricultural production			17
Future			159
Irrigation, after		137,	154
", befor e			133
Aluminium factory			190
Area, irrigated	250,	271,	294
Area, multi-cropped	250,	271,	294
Area, occupied	320,	326,	331
Area under crops	250,	271,	294
Cereals	**	59	**
Chana		39	79
Gram, black	n	\$9	**
Gram, green	> 7	99	,,,
Groundnut	**	**	**
Jute	**	99	**
Kulthi	59	**	33
Paddy	"	,,	>7
Potato	**	**	**
Pulses	**	97	\$7
Sugarcane	99	> 7	99
Assets	252,	273,	296
Buildings	37	. 79	**
Debt	\$ \$	"	"
Farm lands	n	**	,,
Implements	**	**	**
Livestock	**	**	59
Non-farm implements	> *	**	**
Bagasse			19
Benefit-cost ratio			210
Benefits, indirect primary			161
seconda	rv		161
Betterment levy	- 4		218
Borrowings	343	358.	379
Buildings See Assets	÷ -0)		- / -
See disinvestment			
See investment			
			~
Canals, Orissa in 1865	ŕ		1
Capital investment			16

٠.

• •

Capital, working	316,	322,	328
Communities	338 353,	356,	372
Conclusions			228
Consumer goods			15
Cost, crop production			134
Cost, production	316,	322,	328
Costs, selling	343,	358,	379
Costs v. benefits			16
Cotton, Sir Arthur			1
Crop, individual, See	Area unde	T	
Crop kharif			142
Crop pattern by zone	5		138
Crop pattern under in	rrigation		146
Crop, rabi			142
Crop surveys			27
Jute			"
Potato			53
Sugarcane			**
Tobacco			"
Crop yields, irrigated	101 100		148
Cuttack	101, 106,	238,	353
Cultack See also Dell	La Lone		17
Cultivation, perennial			17
Dam			
HITC//11/ 5701007			1 9
Hirakud project	act henefi	t =	1, 2 12
Hirakud project """dir Debt	ect benefi 252	ts 273	1, 2 12 206
Hirakud project """dir Debt	ect benefi 252,	ts 273,	1, 2 12 296
Hirakud project ""dir Debt Debt See also assets "disinvestmen	ect benefi 252, t	ts 273,	1, 2 12 296
Hirakud project "", dir Debt Debt Ses also assets " disinvestment	ect benefi 252, t	ts 273,	1, 2 12 296
Hirakud project ", ", dir Debt Debt See also assets ", disinvestmen ", investment Debt. outstanding	ect benefi 252, t 320.	ts 273, 326.	1, 2 12 296 331
Hirakud project ", ", dir Debt Debt See also assets ", disinvestmen ", investment Debt, outstanding Delta Zone	ect benefi 252, t 320, 68, 106.	ts 273, 326, 112.	1, 2 12 296 331 353
Hirakud project ", " dir Debt Debt See also assets " disinvestmen " investment Debt, outstanding Delta Zone Depreciation	ect benefi 252, t 320, 68, 106, 343.	ts 273, 326, 112, 358.	1, 2 12 296 331 353 379
Hirakud project ", ", dir Debt Debt See also assets ", disinvestmen ", investment Debt, outstanding Delta Zone Depreciation Development stages	ect benefi 252, t 320, 68, 106, 343,	ts 273, 326, 112, 358,	1, 2 12 296 331 353 379 15
Hirakud project ", ", dir Debt Debt See also assets ", disinvestmen ", investment Debt, outstanding Delta Zone Depreciation Development stages Dharmarajan, N.	ect benefi 252, t 320, 68, 106, 343, 188.	ts 273, 326, 112, 358, 189.	1, 2 12 296 331 353 379 15 192
Hirakud project ", ", dir Debt Debt See also assets ", disinvestmen ", investment Debt, outstanding Delta Zone Depreciation Development stages Dharmarajan, N. Direct and indirect b	ect benefi 252, t 320, 68, 106, 343, 188, enefits	ts 273, 326, 112, 358, 189,	1, 2 12 296 331 353 379 15 192 15
Hirakud project ", " dir Debt Debt See also assets " disinvestmen " investment Debt, outstanding Delta Zone Depreciation Development stages Dharmarajan, N. Direct and indirect b Disinvestment	ect benefi 252, t 320, 68, 106, 343, 188, enefits 258	ts 273, 326, 112, 358, 189, . 283.	1, 2 12 296 331 353 379 15 192 15 305
Hirakud project ,, ,, dir Debt Debt See also assets ,, disinvestmen ,, investment Debt, outstanding Delta Zone Depreciation Development stages Dharmarajan, N. Direct and indirect b Disinvestment Debts, new	ect benefi 252, t 68, 106, 343, 188, enefits 258	ts 273, 326, 112, 358, 189, ,283,	1, 2 12 296 331 353 379 15 192 15 305
Hirakud project ", ", dir Debt Debt See also assets ", disinvestmen ", investment Debt, outstanding Delta Zone Depreciation Development stages Dharmarajan, N. Direct and indirect b Disinvestment Debts, new Houses	ect benefi 252, t 68, 106, 343, 188, enefits 258	ts 273, 326, 112, 358, 189, , 283, "	1, 2 12 296 331 353 379 15 192 15 305 "
Hirakud project ", ", dir Debt Debt See also assets ", disinvestmen ", investment Debt, outstanding Delta Zone Depreciation Development stages Dharmarajan, N. Direct and indirect b Disinvestment Debts, new Houses Implements	ect benefi 252, t 68, 106, 343, 188, enefits 258 "	ts 273, 326, 112, 358, 189, ,283, ,	1, 2 12 296 331 353 379 15 192 15 305 "
Hirakud project """, dir Debt Debt See also assets "", disinvestmen "", investment Debt, outstanding Delta Zone Depreciation Development stages Dharmarajan, N. Direct and indirect b Disinvestment Debts, new Houses Implements Land	ect benefi 252, t 320, 68, 106, 343, 188, enefits 258 ", ",	ts 273, 326, 112, 358, 189, ,283, ,""	1, 2 12 296 331 353 379 15 192 15 305 " "
Hirakud project """, dir Debt Debt See also assets "", disinvestmen "", investment Debt, outstanding Delta Zone Depreciation Development stages Dharmarajan, N. Direct and indirect b Disinvestment Debts, new Houses Implements Land Livestock	ect benefi 252, t 320, 68, 106, 343, 188, enefits 258 " " "	ts 273, 326, 112, 358, 189, ,283, ," ,"	1, 2 12 296 331 353 379 15 192 15 305 " "
Hirakud project ,, ,, dir Debt Debt See also assets ,, disinvestmen ,, investment Debt, outstanding Delta Zone Depreciation Development stages Dharmarajan, N. Direct and indirect b Disinvestment Debts, new Houses Implements Land Livestock Loan recovery	ect benefi 252, t 320, 68, 106, 343, 188, enefits 258 " " "	ts 273, 326, 112, 358, 189, ,283, , , ,283, , , , , , , , , , , , , , , , , , ,	1, 2 12 296 331 353 379 15 192 15 305 " " "
Hirakud project ", ", dir Debt Debt See also assets ", disinvestmen ", investment Debt, outstanding Delta Zone Depreciation Development stages Dharmarajan, N. Direct and indirect b Disinvestment Debts, new Houses Implements Land Livestock Loan recovery Ornaments	ect benefi 252, t 320, 68, 106, 343, 188, enefits 258 " " "	ts 273, 326, 112, 358, 189, ,283, """ """	1, 2 12 296 331 353 379 15 192 15 305 """"""""""""""""""""""""""""""""""
Hirakud project """, dir Debt Debt See also assets ", disinvestmen ", investment Debt, outstanding Delta Zone Depreciation Development stages Dharmarajan, N. Direct and indirect b Disinvestment Debts, new Houses Implements Land Livestock Loan recovery Ornaments Drought, in Orissa	ect benefi 252, t 320, 68, 106, 343, 188, enefits 258 " " "	ts 273, 326, 112, 358, 189, ,283, """ ""	1, 2 12 296 331 353 379 15 192 15 305 """"" """" 1
Hirakud project """, dir Debt Debt See also assets ", disinvestmen ", investment Debt, outstanding Delta Zone Depreciation Development stages Dharmarajan, N. Direct and indirect b Disinvestment Debts, new Houses Implements Land Livestock Loan recovery Ornaments Drought, in Orissa	ect benefi 252, t 320, 68, 106, 343, 188, enefits 258 "" ""	ts 273, 326, 112, 358, 189, ,283, """"""""""""""""""""""""""""""""""""	1, 2 12 296 331 353 379 15 192 15 305 " " " " " " " " " " "
Hirakud project ,, ,, dir Debt Debt See also assets ,, disinvestmen ,, investment Debt, outstanding Delta Zone Depreciation Development stages Dharmarajan, N. Direct and indirect b Disinvestment Debts, new Houses Implements Land Livestock Loan recovery Ornaments Drought, in Orissa Earners	ect benefi 252, t 320, 68, 106, 343, 188, enefits 258 " " " "	ts 273, 326, 112, 358, 189, ,283, " " "	1, 2 12 296 331 353 379 15 192 15 305 " " " " " " " " " " " " 1 26
Hirakud project """, dir Debt Debt See also assets ", disinvestmen ", investment Debt, outstanding Delta Zone Depreciation Development stages Dharmarajan, N. Direct and indirect b Disinvestment Debts, new Houses Implements Land Livestock Loan recovery Ornaments Drought, in Orissa Earners Earners	ect benefi 252, t 320, 68, 106, 343, 188, enefits 258 """""""""""""""""""""""""""""""""""	ts 273, 326, 112, 358, 189, ,283, """"""""""""""""""""""""""""""""""""	1, 2 12 296 331 353 379 15 192 15 305 """" 1 26
Hirakud project """, dir Debt Debt See also assets ", disinvestmen ", investment Debt, outstanding Delta Zone Depreciation Development stages Dharmarajan, N. Direct and indirect b Disinvestment Debts, new Houses Implements Land Livestock Loan recovery Ornaments Drought, in Orissa Earners Earners Sex	ect benefi 252, t 320, 68, 106, 343, 188, enefits 258 """""""""""""""""""""""""""""""""""	ts 273, 326, 112, 358, 189, ,283, """"""""""""""""""""""""""""""""""""	1, 2 12 296 331 353 379 15 192 15 305 """" 1 26 373

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Age	339,	354,	373
Industrywise		339,	374
Income, earned	340,	355,	375
Earners' status			377
Education			378
Earners See also family r	nembe	rs	
Earners' status		· · ·	
Earners			377
Industry			377
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Employment industrial			203
Employment, muscriai			200
Employment	300	396	224
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Store T			20
Data nacassary			20
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Seed shortage	"	"	"
Stony and hilly	33))
Fomily and miny	27	"	
Family Quantum 11		074	0.70
Communities 338,	353,	356,	372
Income, total	341,	342,	376
Occupation of head		r '	357
Persons in	337,	356,	372
Size See persons			1
Family members	246	267	290
A dulta	410,	201,	200
Audits	"	35	, >>
Agriculture, in	"	27	
Earners	,,	"	37
Labourers	"	>>	
Non-adults			,,
Occupation	,	 ,, .	39
Sex		÷.	
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Orissa			-1
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Adverse effects	2		175
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rorest			7.1
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Hirakud Dam Project			
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Hoon R. C. 138, 140,	141,	143,	162
Huffman, R. E.			229
Implements, farm	256	, 281,	803
Depreciation	97	37	**
Purchase			99
Sale	**	99	"
Value	**		**
Implements, non-farm			
See assets			
" disinvestment			
" investment	••		
Implement, shortage See f	allov	v	
Incomes			12
Income			, , ,
Family, total urban		•	014
Income, agriculturist lutur	C		414 017
Income, cultivators luture			<u>614</u>
Former, earned	210	255	375
Larners urban Industrumino	040	, 000,	
Quartile	\$ \$	941	" 376
Income estimate terrional		U 11)	010
Agricultural sector			127
Non-agricultural sector			127
Rentiers			127
Sampling fraction			127
Sources by zones			
			130
Urban			130 131
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Urban Income, irrigation affected Income. net 320, 326, 331.	tota 343.	1 358.	130 131 126 379
Urban Income, irrigation affected Income, net 320, 326, 331, Income produced	tota 343,	ıl 358,	130 131 126 379 131
Urban Income, irrigation affected Income, net 320, 326, 331, Income produced Income received	tota 343,	1 358,	130 131 126 379 131 131
Urban Income, irrigation affected Income, net 320, 326, 331, Income produced Income received Income, total	tota 343,	1 358,	130 131 126 379 131 131
Urban Income, irrigation affected Income, net 320, 326, 331, Income produced Income received Income, total Family 341.	tota 343, 342,	1 358, 357,	130 131 126 379 131 131 376
Urban Income, irrigation affected Income, net 320, 326, 331, Income produced Income received Income, total Family 341, Industrywise	tota 343, 342,	1 358, 357,	130 131 126 379 131 131 376
Urban Income, irrigation affected Income, net 320, 326, 331, Income produced Income received Income, total Family 341, Industrywise " Occupation of head	tota 343, 342,	1 358, 357,	130 131 126 379 131 131 131 376 357
Urban Income, irrigation affected Income, net 320, 326, 331, Income produced Income received Income, total Family 341, Industrywise " Occupation of head Income, under-estimate in	tota 343, 342,	1 358, 357,	130 131 126 379 131 131 131 376 , , , , , , , , , , , , , , , , , , ,

Industries, new expanded			203
Capital investment			203
Employment			203
Production, value of			203
Industries survey			25
Industry			
Earners		339,	374
Sex of workers			**
Income, earners'	340,	355,	375
", quartile		341,	376
", total family		341,	376
Earner's status			377
Education			378
List	316,	, 822,	328
Industry and			
Borrowings	343	, 358,	379
Costs, selling			
Depreciation		,,	
Expenses			**
Fuel	39	91	
Income, net	**	,,	4
Investment	,,,	,,	**
Maintenance, machinery	**	**	,,
- Production	,,	*1	
Receipts	,,	,,	,,
Rent	,,	,,	**
Sex of workers	,,	.,,	,,
Taxes	**	n	,,
Transport costs	,,		"
Wages	,,	,,	"
Water charge	**	,,	,,
Workers, family	,,	,,	**
", , others		"	· #
Investment 17, 316, 322,	328,	343,	349,
358,	367,	379,	382
Investment & disinvestment	259	, 284	, 306
Investment and			
Buildings	257	7. 282	. 304
Debts. repayed			
Implements	,,,		
Improvement. permanent			
Land			
Livestock			
Loans advanced			
Ornament			**
Investment in industry			203
Irrigation		3. 1	5. 17
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Direct henefits			12
Mahanadi Delta			$12^{}$
Well			162
Khosla A N	9 0	ĸ	3 11
Labour arricultural	ن رسد	, U, i	225

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Labour, casual			308
Employment, monthly			"
Employment, seasonal			"
Wages in cash			,,
" in kind			,,
Labour, construction			225
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Land	245	, 266	, 289
Cultivated	••	. ,,	,,
Leased-in		**	
Leased-out			
Owned			
Revenue			
Size average			
See assots	,,	**	
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investment			
, investment			162
Land cultivable, submerged			133
Land cultivated			100
Land holdings			10
Land use	940	967	41 909
Light charge 320, 326, 331,	349	, 301,	004
Livestock	253,	275,	298
Cattle, calves,	253	, 275,	,298
.,, , draught	"	,,	,,
", "milch	"	"	"
Decrease in,	254	, 277	, 300
Increase in,	97	,,,	>>
Produce, dung-cake	255	, 279,	, 301
", ", manure	,,	,,	"
", ", milk	,,	,,	"
Purchase	254	, 277,	, 300
Sale	,,	"	23
See Assets	•		
Disinvestment			
Investment			
Loan, See disinvestment			
investment			
Machinery value of	316.	322.	328
Mahanadi	,	,	19
Mahanadi astahmant area			164
Mahanadi, Catchilent area			104
Mananadi Della,			19
Extension of irrigation	•		14
Mahanadi Valley Developm	nent		2
Maintenance, machinery	343,	358,	379
Mazumdar Report 11, 1	.33,	195,	197
Manure, farm yard See live	stoc	k	
Materials, raw	316,	322,	328
Milk, See livestock			
Molasses			19
Multi-Purpose Project		•	
Ranafite lang range			16
Construction stage			16
Construction stage			10

Economic benefits		15
Chronological sequence	e .	
Construction stages.	luring	
Consumers' goods		
Direct and indirect		
Employment		
Income		
Irrigation	·	
Measurement of		2
Producers' goods		
Primary stage	,	
Savings	•	
Services		
Stages of		
Trades		
Maturity period		16
Products of		17
Stages of development		16
Stages of development		10
Multi-purpose reservoirs	•	1
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