GOKHALE INSTITUTE OF POLITICS AND ECONOMICS

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BY

V. M. DANDEKAR

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FOREWORD

This publication of the Institute embodies a report prepared by Mr. V. M. Dandekar while on deputation as a Consultant to an FAO team under the leadership of Dr. M. Ezekiel in its Pilot Study in India on Uses of Agricultural Surpluses to Finance Economic Development in Under-developed Countries. The extent to which the FAO team drew upon the paper by Mr. Dandekar has been indicated in the FAO report on the subject*.

Mr. Dandekar's paper is being published by the Institute because, apart from the concrete suggestions contained in it regarding possible use of surpluses, it presents an analysis of some aspects of the economic situation in India which should prove of wide interest. Mr. Dandekar has drawn upon available material, chiefly the data collected by the Agricultural Labour Inquiry, to present a picture of prevailing standards of living in India among large sections of the rural population. The way in which Mr. Dandekar has put together these data results in presenting a vivid picture of the extremely low standard of living of sections of the rural population in many parts of the country. Mr. Dandekar's presentation also emphasizes the wide regional disparities in development and standards of living within the country. These disparities and these standards are well-established and it does not appear from recent enquiries either that the very low standards have been significantly affected or that the disparities have been lessened to any material extent by processes of development which have been initiated in the country. Data from the Rural Credit Survey conducted by the Reserve Bank of India appear to confirm the statements made by Mr. Dandekar on the basis of the Agricultural Labour Enquiry data.

In addition to presenting, with considerable detail and regional breakdown, the situation in relation to the standard of living of the rural population as it exists, Mr. Dandekar has put forward in concrete terms a number of suggestions which together amount to almost a programme for alleviating the situation. In case the claims of the most disadvantaged classes are supposed to be paramount, any plan of national development must give prior attention to their requirements. Mr. Dandekar has suggested measures by which these requirements could be met and has also calculated the costs of meeting

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* Uses of Agricultural Surpluses to Finance Economic Development in Under-Developed Countries—A Pilot Study in India. FAO Commodity Policy Studies No. 6, June 1955.

them. He was not concerned with framing this programme as an integral part of the total development programme of the country. However, the suggestions made by him could without much difficulty be fitted into such a plan of development. An attempt so to fit them would undoubtedly mean giving the plan a definite bias. It has recently been, at least theoretically, agreed that such a bias should be incorporated in Indian plans of development. However, up to the present, action in relation to development plans on the usual lines has ordinarily resulted in further helping the progress of the richer classess and developed regions and, perhaps, in accentuating rather than evening out disparities, between classes and between regions, within the country. In discussions connected with the framing of the Second Five Year Plan some notice appears to have been taken of possible increase in inequalities having come about. There has been some talk also, in the same connection, of rectifying the process. The latest draft of the Second Five Year Plan contains specific reference to both the problems raised by Mr. Dandekar's presentation and stresses the need for positive action in their regard. However, in this connection, there is yet little that appears to have been specifically incorporated in the Plan. In view of this, it is hoped that this publication will be found useful both for an understanding of the size and urgency of the problems and for a consideration of the concrete measures that could be taken to deal with them, as also of the costs of these measures.

Poona, 15th March 1956. D. R. GADGIL.

AUTHOR'S PREFACE

In December 1954, the Food and Agricultural Organization invited me to serve as a Consultant in preparing and organising statistical and economic material in connection with the FAO pilot study of the use of food surpluses for economic development and to assist the FAO Mission when it arrived in India in the middle of February 1955. The preliminary material to be prepared by me included an examination of the relevant material available in India bearing on changes in consumption with differences in the level of family incomes and an examination of the suitability of various types of development projects for financing through the use of surplus foods. I was required to prepare, for the use of the FAO Mission, a preliminary report summarising the above material. The present Memorandum is intended to serve this purpose.

The above arrangements were made with the approval of the Planning Commission and I received full assistance and co-operation from all agencies of the Union and States' Governments. It seems appropriate to mention some of them.

My arrangements with the FAO were made through the Ministry of Food and Agriculture, and I continued to receive fullest co-operation from the Ministry and in particular from the Directorate of Economics and Statistics of the Ministry. The material in the present Memorandum relating to the recent developments in the food situation in this country, is largely based on notes prepared in this Directorate. Besides, the Directorate also helped in organising for the purpose of this study, through its Agro-economic Research Units at Poona, Madras, and Shantiniketan, special collection of material relating to the labour employed on various development projects in their respective areas.

A cursory glance through this Memorandum will show that its main body comprises presentation of certain data from the Agricultural Labour Enquiry. I have to thank the Ministry of Labour and Dr. B. Ramamurty of the Central Statistical Organisation for making available to me this wealth of material.

The discussion relating to labour employment potential of different development projects is largely based on the material supplied by the Labour and Employment Division of the Planning Commission. Similarly, the discussion relating to the progress of the Five Year Plan is based on the material supplied by the Progress Division of the Planning Commission.

The Project Evaluation Organisation of the Planning Commission agreed to organise, for the purpose of this study, special collection relating to the labour employed on different works in a number of community project areas.

The Statistician, Office of the Chief Engineer, Hirakud Dam Project, organised, with the approval of the Chief Engineer, a special investigation relating to the labour employed on that project.

The Director, Backward Class Department and the Chief Inspector, Certified Schools, Government of Bombay agreed to collect, specially for this study, data relating to food consumption in hostels and institutions under their Departments.

Among the non-official agencies, I must mention all the four agro-economic research units of the Ministry of Food and Agriculture at Delhi School of Economics, Gokhale Institute of Politics and Economics, Madras University and Vishwabharati. The Delhi School of Economics, besides the co-operation received by me, is actively participating under separate arrangements, in the FAO study by conducting a comprehensive study at the Bhakra Nangal Project. The other three units conducted special investigations relating to the labour employed in a number of projects in their respective areas.

The Delhi School of Economics also made available to me for the present study, consumption data from a series of surveys relating to refugee rehabilitation it had earlier conducted. Similarly, the Gokhale Institute of Politics and Economics made available material from the surveys, it had earlier conducted, relating to the Famine conditions in Bombay during 1952-53.

From the published survey material, I have made use of the "Results of Diet Surveys in India, 1935-48" published by the Indian Council of Medical Research and the "Survey of Faridabad Township" by Pitambar Pant, being publication No. 6 of the National Sample Survey.

Within the short time available, I have tried to put together this diverse material from many sources. In many parts, the Memorandum therefore remains somewhat disjointed. However the general thesis, I believe, is fairly clear. I need not mention, that though the Memorandum could not have taken its present shape within the short time available without willing and unreserved co-operation from all the agencies mentioned above and many others, ~~still~~ the organisation and presentation of the material in its present form as also the expression of any views contained herein, are solely my responsibility.

Apart from whatever use it may prove of to the FAO Mission in their specific problem, the present study, I venture to imagine, may be found to have wider interest. If so, I must thank the FAO for giving me an opportunity for preparing this Memorandum.

Poona,
16th February, 1955.

V. M. DANDEKAR.

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CHAPTER I

FOOD SITUATION IN INDIA DURING WAR AND POST-WAR YEARS

During the War and post-War years, the food situation in the Indian Union underwent long periods of great stress and strain and it is only during last two years or so that the situation has eased considerably. It might, therefore, be appropriate to outline briefly the main developments during this period, as a background to the problem of food surpluses. The following account is based on the "Introductory Note" to the publication "Food Situation in India—1939-53". (Issued by the Ministry of Food and Agriculture, Government of India.)

Even in the pre-War years, the Indian Union was a net importer of cereals. Her average annual net imports for the three years ending 1938-39 were 21 lakh tons. Of this, rice and paddy accounted for 17 lakh tons and wheat about 4 lakh tons. Rice was imported mainly from Burma and to some extent from the territories now gone over to Pakistan; wheat was received almost exclusively from the latter source. The cessation of rice supplies from Burma towards the end of 1942, therefore, created a difficult situation and to meet it, a comprehensive scheme of controls was evolved, involving internal procurement, imports from abroad on government account, planned movement of supplies and controlled distribution of the available supplies.

Though the War ended in 1945, the food position in the country continued to be difficult because of the damage to crops caused by adverse seasonal conditions in the next two years. Food controls had, therefore, to be intensified and extended. Population under rationing rose from 245 lakh on 31st March 1944 to 1479 lakh in November, 1947. Procurement of the internal supplies however had more or less stabilised around 40 lakh tons and had failed to keep pace with the increasing rationing commitments. This led to an increasing dependence on the imported supplies of foodgrains. Table No. 1 shows the net imports of cereals into India from 1944 to 1947 together with the position in the pre-war years.

There was a global shortage of foodgrains in the immediate post-war period; international prices showed a sharp increase and the imported foodgrains became costlier than the indigenous foodgrains in India. From 1st April 1946, the Government of India,

TABLE No. 1

Net imports of foodgrains in India 1944-47.

(Lakh tons.)

Year	Rice	Wheat	All cereals
1936-39 (Average)	17	4	21
1944	2	13	16
1945	5	13	18
1946	6	14	26
1947	7	9	27

therefore, started subsidising imported foodgrains in order to prevent a further rise in the cost of living. The subsidy borne by the Government amounted to Rs. 20.65 crore in 1946-47 and Rs. 26.57 crore in 1947-48. This caused a double strain on the financial resources of the Government. On the one hand, it had to spend a large part of its foreign exchange on purchases from abroad; on the other, it had to bear a heavy loss on the sale of these grains at prices comparable with those of indigenous grains. There was also growing gradually popular discontent against the rigours and inconveniences of controls. Under the strain, the country was divided on the merits of continuing the food controls and in deference to the wishes of a large section of the population, the new popular government decided, towards the end of November 1947, to give a trial to a policy of progressive decontrol of foodgrains. The experiment failed and proved abortive.

The prices of foodgrains rose sharply. Between December 1947 and September 1948, the average price of wheat increased in Punjab from Rs. 10/9/8 to Rs. 21/4/2 per maund and in Uttar Pradesh from Rs. 10/13/9 to Rs. 23/8/- per maund. Similarly, the prices of rice during the same period rose from Rs. 13/8/- to Rs. 20/2/6 per maund in West Bengal and from Rs. 13/8/- to Rs. 26/6/- in Madras. By July 1948, the rise in prices had become steep. The Economic Advisor's Index Numbers of Wholesale Prices in September 1948 showed an increase of 56 per cent in the case of rice, 127 per cent in the case of wheat and 62 per cent in the case of all cereals in comparison with December 1947.

The consumer was hit hard and the Government had to step in to provide relief. Relief-quota and fair-price shops were opened to supply certain quantities of food-grains to the vulnerable sections of the population at reasonable prices. As a consequence, the State Governments increased their demand on the Centre, which in turn, led to an increase in the imports from abroad. The policy of pro-

gressive decontrol could no longer be pursued, and in September 1948, controls were reimposed as a part of an overall policy of fighting inflation.

However, by this time, the market prices of foodgrains had risen very high and the procurement prices had now to be fixed at 25% to 50% higher than those prevailing prior to the adoption of the policy of gradual decontrol. Nevertheless, with the gradual intensification of procurement and rationing, the scope of the free market soon got restricted. In September 1949, the devaluation of the Indian Rupee in relation to the U.S. Dollar called for fresh anti-inflationary measures to keep the internal prices in check. Hence in November 1949, a cut varying from 7% to 15% was effected in the procurement and issue prices of Kharif cereals in most parts of the country along with a reduction in the prices of other essential commodities, such as cloth, yarn, coal, steel, etc. This step assisted by good crop prospects brought about a significant fall in the market prices of cereals by December 1949. The extent of the fall will be evident from Table No. 2.

TABLE No. 2

Market prices of rice and wheat in December 1948 *and* 1949.

Grain	State	Centre	Dec. 1949	Dec. 1948.
			Rs. per maund	
Rice	West Bengal	Barsat	16. 6. 0	22. 0. 0
	U.P.	Khurja	18. 0. 0	28. 8. 0
		Bairampur	19. 0. 0	21. 0. 0
	Madras	Guntur	12. 8. 0	15.12. 0
Wheat	U.P.	Meerut	19. 8. 0	25.12. 0
		Chandausi	19. 0. 0	25. 1. 0
	Punjab	Moga	13. 8. 0	23. 0. 0

The downward trend in prices continued into the early part of 1950. In April 1950 the procurement prices of Rabi cereals were therefore, brought down. In the case of wheat, the procurement price was reduced from Rs. 13/8/- to Rs. 13/- in Punjab and from Rs. 14/- to Rs. 13/8/- per maund in Uttar Pradesh.

But, soon after, the situation suffered a set back due to damage to crops as a result of a succession of natural calamities in June-December 1950 and the prices of cereals took an upward turn. This was accompanied by a fresh wave of inflationary pressure generated by the boom in the commodity markets following the outbreak of the Korean War in June 1950. In April 1951, the general price

level reached an all-time peak. The high level continued for another two months and even in June 1951 the prices of cereals were considerably higher than those a year before. In Table No. 3 are given the comparative prices in June 1950 and June 1951.

TABLE No. 3

Market prices of rice and wheat in June 1950 and 1951.

Grain	State	Centre	June 1950	June 1951
			Rs. per maund	
Rice	Bihar	Ranchi	18. 0. 0	23. 0. 0
	U.P.	Balarampur	19. 8. 0	32. 0. 0
	Madhya Pradesh	Raipur	14.12. 0	19. 8. 0
Wheat	U.P.	Chandausi	15.11. 0	16. 3. 0
	Madhya Pradesh	Jabalpur	18. 0. 0	18.12. 0

The rise in prices led to a tendency towards hoarding and profiteering and it became impossible to find large additional stocks that were required to work a uniform system of monopoly procurement and universal rationing all over the country. Thus in spite of the significantly better production yields in the year, the total procurement of foodgrains in 1950, was no higher than that in 1949. The procurement in 1951 was further lower by 8 lakh tons though this was partly due to lower production in that year. The entire administration of the food controls thus became increasingly and chronically dependent on the imported foodgrains. In Table No. 4 are given the net imports of cereals during the period from 1948 to 1951.

TABLE No. 4

Net imports of foodgrains in India 1948-51.

(Lakh tons)

Year	Rice	Wheat	All cereals
1948	9	13	28
1949	8	22	37
1950	4	14	21
1951	7	31	47

The increasing dependence of the food administration on the imported foodgrains becomes clear also from the relative magnitudes of internal and imported supplies in the total quantities of cereals

actually moved under the food administration during the period from 1947 to 1951 as is shown in Table No. 5.

TABLE No. 5

Movement of foodgrains under the food administration 1947-1951.

(Lakh tons)

Year	Supplies out of internal sources	Supplies out of imports	Total supplies	Internal supplies as per cent of total supplies
1947	2.84	23.69	26.53	10.7
1948	3.66	28.36	32.62	11.4
1949	3.84	36.19	40.03	9.6
1950	7.85	20.85	28.70	27.4
1951	1.70	46.79	48.49	3.5

Even with the increased imports, the demand on Government stocks could not be met from the supplies in certain parts of the country. By the beginning of 1951, the Government of India had therefore to approach the Government of the United States for an ad-hoc assistance of 20 lakh tons of wheat to meet the internal food shortage. The assistance came in the form of a wheat loan of 20 lakh tons and accounts for the large imports in 1951 as shown in Tabe No. 5.

With the signing of the truce in Korea, the commodity boom abated. Nevertheless inflation continued to be the major problem and various anti-inflationary fiscal measures, such as restriction of credit, were adopted in many countries. In India, for instance, the bank rate was raised in November 1951 and the credit facilities were generally restricted. The cumulative effect of these measures was a recession in the commodity markets from the beginning of 1952. In India too, prices fell during the first quarter of 1952. With the break in the commodity market, the prices of food-grains also moved down. Taking advantage of the recession in market prices of food-grains and the weakening of the inflationary pressure, the subsidy on imported foodgrains was withdrawn from 1st March 1952. Coarse rice and millo were, however, supplied to the State Governments at prices below their actual landed cost. The downward trend in the market prices continued and at some places the prices fell below the issue rates in Government ration shops. As a result, there was a noticeable shift in the demand from the ration shops to the open market and an accumulation of stocks with the Government. The crop prospects for 1952-53 were also bright. In view

of these favourable circumstances the controls on foodgrains were relaxed from the middle of June 1952.

The improvement in the general food situation recorded in 1952 after several years was maintained in 1953. The year opened with a comfortable stock of 19 lakh tons with the Central and State Governments which was the highest for any year. The production of cereals in 1952-53 also turned out to be the highest since 1947-48. On the other hand, following the relaxation in controls and the increased availability of foodgrains in the open market at lower prices, the requirements of the State Governments for meeting the rationing commitments declined considerably. Thus wheat crop of 1952-53 was the highest since 1947-48 and with the arrival of the new harvest in the market the offtake of wheat from the ration shops registered a marked decline and led to an increasing accumulation of stocks with the Government. In October 1953, when the new Kharif crops became available, their prices, especially of the coarse grains took a definite downward turn. The supplies of wheat also continued to be adequate. Therefore, in November 1953, the Government decided to decontrol wheat and coarse grains except for the retention of inter-State barriers on their movement. Nevertheless, the prices of coarse grains continued to fall and in certain parts of the country they almost touched uneconomic levels. In the circumstances, it was decided to decontrol coarse grains completely with effect from 1st January 1954 including the removal of the inter-State movement except in certain areas. Thus at the end of 1953, only rice continued to be controlled and wheat was controlled only to the extent of a ban on inter-State movement. All other food-grains were virtually decontrolled.

In Table Nos. 6 and 7, are shown the imports of food-grains during 1952 and 1953 and also their quantities actually moved under the food administration.

TABLE No. 6

Net imports of foodgrains in India in 1952 *and* 1953.

(Lakh tons)

Year	Rice	Wheat	All cereals
1952	7	25	39
1953	2	17	20

The improvement in the general food position in 1953 continued in 1954. The production of cereals in 1953-54 was even

better than that in 1952-53. The grainwise improvement in 1953-54 over 1952-53 is shown in Table No. 8.

TABLE No. 7

Quantities of foodgrains moved under the food administration in 1952 *and* 1953.

(Lakh tons)

Year	Supplies out of internal sources	Supplies out of imports	Total supplies	Internal supplies as per cent of total supplies
1952	4.55	34.69	39.54	11.6
1953	10.59	18.91	29.50	35.9

TABLE No. 8

Production of cereals in 1952 *and* 1953

(Lakh tons)

	1953-54 Final estimate	1952-53 Partially revised estimate	Percentage increase or decrease in 1953-54
Rice	270.79	224.95	20.4
Jawar	76.91	72.60	5.9
Bajra	42.46	31.50	34.8
Maize	28.54	28.23	1.1
Ragi	15.64	12.38	26.3
Small millets	21.83	19.05	14.6
Wheat	77.92	73.83	5.5
Barley	27.21	28.49	—4.5
Total cereals	561.30	491.03	14.3

On account of the marked improvement in production, compulsory procurement out of the 1953-54 rice crop was progressively abandoned in several States from January 1954 onwards. Even then, quantities offered for sale to Government showed considerable increase while offtakes from the Government shops registered a sharp decline. The stocks of rice with the Government showed a progressive increase and reached the record figure of about 13 lakh tons by the end of June 1954. All controls on rice were, therefore, removed with effect from 10th July 1954. From that date, procurement, restriction on movement, price control and rationing virtually came to an end. The only major control on food-grains that remained for sometime was the restriction on the inter-State or inter-zonal movement of wheat.

As an immediate reaction to the decontrol, the market prices of coarse grains, namely, millets, maize and barley showed signs of

recovery in those areas where earlier they had fallen very low. In the case of wheat some fall in prices was to be expected after the harvesting of the new crops in 1954, but in June 1954, at places, the prices dropped even below Rs. 10/- per maund. The State Governments of Punjab, U.P. and Rajasthan therefore announced that they would step into the market and buy wheat at Rs. 10/- per maund in case the market prices fell below that level. There was, however, a recovery in wheat prices during July-August. In the case of rice, after its decontrol in July, there was witnessed a recovery in prices from the low levels touched in some areas in June 1954. During August, prices in certain flood affected areas of Assam, West Bengal and Bihar showed some increase. Since then the prices fluctuated within narrow limits. On the whole, prices of cereals in 1954 generally showed a downward trend; they were lower than the prices in the previous year and as a result of inter-State movement, the disparity in prices as between different States tended to narrow down.

The marked improvement in production of foodgrains had reduced the country's dependence on imports of foodgrains. Actual arrivals of cereals into the country from the beginning of the year upto the end of November 1954 amounted to 7.0 lakh tons comprising 5.4 lakh tons of rice, 1.5 lakh tons of wheat and 0.08 tons of millo. It was estimated that the total imports during the year would come to about 10 lakh tons. However, whatever was being imported was not intended so much to meet current requirements for internal consumption as to build up an adequate reserve. Total stocks of foodgrains with the State Governments in November stood at 9.9 lakh tons. In addition to this the Central Government held a reserve of 4.5 lakh tons, mostly of rice, excluding the stocks held in the Central Sales Depot.

It was expected that the acreage under cereals in 1954-55 would not be less than that in 1953-54. During August, some damage was caused to the crops by riverine floods in Assam, North Bihar, East U.P. and West Bengal and by drought in South Bihar, West U.P., Orissa and Rajasthan. But in other places, the weather conditions were generally favourable. The normal Grow-More-Food measures were being continued for increasing the production of rice with greater emphasis on the use of fertilizers. The Japanese method of rice cultivation tried over 4 lakh acres during 1953-54 had proved satisfactory and concerted efforts were being made in 1954-55 to attain a target of 20 lakh acres under this method. On balance, it was expected that the food situation in 1954-55 would continue to be satisfactory.

CHAPTER II

RESULTS OF DIET SURVEYS IN INDIA

It is generally admitted that a considerable part of the phenomenal increase in the production of foodgrains during 1952-53 and 1953-54, is to be attributed to favourable seasons. Nevertheless, part of it should appropriately be credited to the concerted efforts first initiated during the critical days of the War and post-War years and later greatly extended under the First Five Year Plan. It is to be expected that this achievement will be maintained and followed up. In view of this, the relative independence from imported foodgrains achieved in recent years and the fall in the prices of foodgrains unaccompanied by corresponding fall in prices in other sectors, raises the pertinent question: Is India about to attain self-sufficiency in the matter of foodgrains and in fact is she soon likely to have a surplus in this respect? A related question to ask is: Are the present supplies sufficient to feed adequately the entire population? Or is the adequacy of the existing supplies only apparent and only rests on the fact that there exist in this country large sections of the population who remain underfed for want of income?

These questions are obviously central to any discussion of the disposal of food surpluses and in the following chapters we shall present the available data bearing on them. It will be appropriate to begin with an examination of the results of diet studies made by various investigators.

In 1951, the Indian Council of Medical Research published the "Results of Diet Surveys in India" (Special Report Series No. 20) conducted by various investigators during the period 1935-48. The publication includes the results of a total of 843 diet studies. Except in one or two rare exceptions, the data were collected by a house to house visit and by actual weighing of foodstuffs for a continuous period varying from 7 to 21 days. In most cases the number of families included in the diet study, number of persons comprising them, the month in which the study was done and the number of days over which it was extended are given. No more information about the groups of families is available except for a broad indication of their occupational and economic status and in a few cases their average monthly incomes. The principal results are the average daily intake of each type of food, in ounces, by an average hypothetical adult male, called the "Consumption unit". For conversion of

the number of persons to equivalent "Consumption units", the calorie co-efficients suggested by the League of Nations in 1932 for men and women of different ages were used. The different food-stuffs for which daily consumption has been shown are Rice, Wheat, Millets, Other cereals, Pulses, Leafy vegetables, Other vegetables, Fruits, Ghee, Vegetable oil, Milk and milk-products, Meat, fish and eggs. Sugar and jaggery. The daily intakes of these foodstuffs have been calculated from the total weight of raw food actually cooked in each unit comprising the group under study. In Table No. 9 are given the number of studies done in each State during the periods 1935-42 and 1943-48 respectively.

TABLE No. 9

Number of diet studies conducted in different states during the period 1935-48.

State	Number of studies		
	1935-42	1943-48	Total
Kashmir	2	—	2
Punjab	20	—	20
Delhi	3	—	3
Ajmer	3	—	3
Uttar Pradesh	2	—	2
Assam	1	5	6
West Bengal	—	11	11
Bihar	35	55	90
Orissa	45	13	58
Bombay	10	332	343
Travancore-Cochin	25	9	34
Madhya Pradesh	6	14	20
Hyderabad	61	17	78
Madras	—	166	166
Mysore	2	—	2
Coorg	3	—	3
Bhopal	—	2	2
TOTAL	221	622	843

Thus we have a fairly large number of studies from Eastern India, namely, from Bihar, Orissa, West Bengal and Assam; from South India, namely, from Madras and Travancore; from Western India, namely, from Bombay; and from Central India, namely from Madhya Pradesh and Hyderabad. We have, on the other hand, only a few studies from North India, namely from Uttar Pradesh and except for the set of studies from Punjab, also very few from North-west India. Moreover all the studies from North-west and North India were done before 1943, that is, before the rise in prices.

For the purposes of a quantitative interpretation of the results, the diets of the different groups are compared with a standard diet as recommended by the Nutrition Advisory Committee (Government of India) in November 1944. The resuts are shown in Table No. 10.

TABLE No. 10

Classification of the diet studies according to the consumption of various items in comparison with a standard diet.

	Recommended consumption in oz. per consumption unit	Percentage of studies with average consumption. Nil	Below standard	Standard or above standard
Cereals	14	—	41.6	58.4
Pulses	3	2.3	73.3	24.4
Leafy vegetables	4	23.0	75.8	1.2
Other vegetables	6	2.5	75.1	22.4
Ghee and oil	2	7.6	79.5	12.9
Milk and products	10	24.7	67.2	8.1
Meat, fish, eggs	4	35.2	59.7	5.1
Fruits, nuts	3	63.0	30.7	6.3
Sugar, jaggery	2	31.2	64.4	4.4

As was noted the studies were made by a number of independent investigators and they were not designed to represent the whole population. In fact, a large majority of the studies relate to the low income or very poor families. Nevertheless, the above results should undoubtedly cause concern. Such results were to be expected in respect of most of the protective foods like vegetables, fats, milk and milk products, meats, fruits and even in respect of sugar and jaggery; but that more than 40 per cent and more than 75 per cent of the studies should reveal sub-standard consumption of cereals and pulses respectively, was probably unexpected. It will be proper, therefore, to examine the situation more closely.

We shall concentrate attention on the consumption of cereals and pulses only and for convenience, consider them jointly. In Table No. 11 we have classified the studies in different States and in the two periods, according to whether the average combined consumption of cereals and pulses was below the recommended standard of 17 oz. per day per consumption unit. It should be noted that in thus comparing the consumption of cereals and pulses with the recommended standard, we are making no allowance for the greatly sub-standard consumption of all other foods.

TABLE No. 11

Classification of the diet studies according to the joint consumption of cereals and pulses.

	1935-42 Number of studies with consumption			1943-48 Number of studies with consumption		
	Sub-standard	Above standard	Total	Sub-standrard	Above standard	Total
Punjab, Kashmir, Delhi, Uttar Pradesh & Ajmer	—	30	30	—	—	—
Assam, West Bengal	—	1	1	2	14	16
Bihar	4	31	35	16	39	55
Orissa	1	44	45	—	13	13
Bombay	8	2	10	255	78	333
Bhopal	—	—	—	1	1	2
Madhya Pradesh	4	2	6	1	13	14
Hyderabad	4	57	61	1	16	17
Madras	—	—	—	71	95	166
Mysore, Coorg	—	5	5	—	—	—
Travancore-Cochin	11	14	25	6	3	9
Total	32	186	218	353	272	625

It will be seen that it is really the studies from Bombay, Madras, Travancore-Cochin and to some extent from Bihar that show a large number of cases of sub-standard consumption of cereals and pulses. Of these, the studies in Bombay form a special class. Most of these studies were confined to residential institutions such as certified schools, remand homes, rescue homes, foundling homes, backward class hostels and diverse other hostels and boarding houses attached to schools and colleges. Only about 12 studies relate to various groups of families and most of them were done in Bombay City and before 1943. The remaining studies relating to all kinds of institutions are of course of special interest but we shall have occasion to refer to them in a later chapter. We shall, therefore, postpone their consideration and presently examine only the studies from Madras, Travancore-Cochin and Bihar.

The principal merit of the studies done in Madras State is that they were all done after 1943 and that they were well distributed over different districts of the State. In Table No. 12 is given a distribution of the 166 studies over different districts showing in each case the number of studies showing consumption of cereals and pulses below the recommended standard.

It is clear that among the studies made in the districts of Bellary and East and West Godavari, there are very few with sub-

TABLE No. 12

Classification of the diet studies in Madras State according to the consumption of cereals and pulses.

District	Number of studies with consumption		Total
	Sub-standard	Above-standard	
Bellary	1	7	8
East & West Godavari	—	4	4
Tiruchirapalli	9	29	38
Kurnool	6	15	21
Anantpur	6	10	16
Chingleput	10	4	14
Coimbatore	5	4	9
Chittoor	3	5	8
Cuddapah	3	3	6
Madurai	2	4	6
Ramnad	4	3	7
Tinnevelly	5	1	6
Tanjore	5	1	6
Salem	2	1	3
Nellore	3	1	4
North Arcot	2	1	3
Madras City	4	—	4
Other districts	1	2	3
Total	71	95	166

standard consumption of foodgrains. The large number of studies done in Tiruchirapalli also show comparatively smaller proportion with substandard consumption. Out of the 38 studies in this district only 9 show substandard consumption of foodgrains. Moreover, in 5 out of these 9 studies, the diet comprised considerable amounts of milk suggesting that the lower consumption of cereals might not be due to want of income. Again, though among the 21 studies in Kurnool 6 are of substandard consumption, most of them, from the information given, are not distinguishable from the rest in their social and economic condition. Similarly, though 6 out of the 16 studies in Anantpur district show substandard consumption of food-grains, in most of them the consumption is between 16 oz. and 17 oz. and the one case where it is indeed very low, being only 13 oz., is not distinguishable in its economic status from the rest. If, therefore, we leave aside the studies in the districts of Bellary, East and West Godavari, Tiruchirapalli, Kurnool, and Anantpur, we are left with a total of 79 studies in the remaining districts of the State. In 49 of these, which is more than 60 per cent of the total, the consumption of food-grains is below the recommended standard.

Out of the 14 studies in Chingleput, 10 show substandard consumption. In fact, in 6 of these, the consumption of cereals and pulses is even below 12 oz. On the other hand, in the four studies where the consumption is above standard, it is barely so. The consumptions of cereals and pulses in the four cases are 17.0, 17.3, 17.5 and 19.5 oz. respectively. Thus except in the last mentioned case, which also shows consumption of 4 oz. of milk, all the studies in this district might be deemed to show substandard living conditions even in respect of the consumption of foodgrains.

Out of the 9 studies in Coimbatore district, 6 relate to Scheduled Caste families and the remaining 3 are done in the police lines. Out of the six studies relating to Scheduled Caste families, three show low consumption of foodgrains being 17.1, 14.8 and 13.8 oz. respectively; and in none of them this is supplemented with anything else. On the other hand, the other three studies show high consumption of foodgrains of 26.8, 26.7 and 22.5 oz. respectively and this is accompanied by some amount of milk. The three low consumption studies were all done at a single place in November 1947 while the three high consumption studies were done at three different places in February 1945. There also appears a small difference in the levels of incomes of the two sets. The three low consumption groups had incomes of Rs. 42, Rs. 50 and Rs. 50 per month respectively. The three high consumption groups had monthly incomes of Rs. 59, Rs. 47 and Rs. 70 respectively.

It is somewhat surprising that even the three studies in the police lines at Coimbatore should show very low consumption of foodgrains, namely 9.3, 11.9 and 11.1 oz. respectively, though this is supplemented by 5 or 6 oz. of milk.

Though only 3 out of the 8 studies in Chittoor district show foodgrains consumption below 17 oz., in the remaining cases, the consumption rarely exceeds 20 oz.

Out of the three sub-standard consumption groups in Cuddappah, one shows consumption of even less than 12 oz. of foodgrains. The study relates to a group of scheduled caste families. Similarly, the lowest consumption group in Madura district shows a consumption of 12 oz. and relates to a group of Muslim families.

Four of the seven studies in Ramnad district show substandard consumption and one of them with consumption of 15 oz. of foodgrains relates to the police lines. The other three with really very low consumptions of 10, 11 and 13 oz. respectively relate to scheduled caste families.

Five out of the six studies in Tinnevelly show substandard foodgrains consumption and out of the three lowest with consumption of 8, 10 and 12 oz., two relate to Scheduled caste families. Similarly, five out of the six studies in Tanjore district show substandard consumption and while they belong to all communities with low income levels the only one with above standard relates to a set of families with a distinctly higher income level.

Two of the three studies from Salem district show substandard levels of consumption and one of them, of Muslim families, shows consumption of only 12 oz. In the third case, belonging to Scheduled caste families, though the consumption just reaches 17 oz., the foodgrains comprise, unlike in other cases, not rice but inferior millets.

Three out of four studies in Nellore district, show substandard consumption and two of them are of Scheduled caste families. Similarly, two of the three studies from North Arcot, one of Muslims and the other of Scheduled castes, show consumption of below 10 oz.

Finally all the four studies in Madras City show substandard consumptions and two of them belong to leper and hence presumably poor families.

There are in all 34 studies reported from Travancore done in seven sets and arranged so as to bring out directly the differences in the diets of families belonging to different income groups. All the studies except those in one set were done before 1943 and most of them were done during 1942-43. They cover both rural and urban areas. In each set of studies, the families are classified in four or five income groups as follows : Income upto Rs. 10/-; Rs. 11/- to Rs. 20/-; Rs. 21/- to Rs. 50/-; Rs. 51/- to Rs. 100/- and income above Rs. 100/-. The results very definitely show that the families in the first two income groups have diets which are very much substandard. In Table No. 13 is given a summary of the results of the 7 sets of studies.

The remaining one study relates to a group of families of small cultivators. They show an average consumption of only 9 oz. of rice supplemented with 18 oz. of tapioca.

The principal feature of the set of the 90 studies done in Bihar is that it contains a large number of re-surveys of groups of families earlier surveyed. The earlier surveys were done before 1942 and the resurveys were made during 1943-44 with explicit intention to assess the effect of the rise in prices and of the shortage

of foodgrains then prevailing. There are reported at least 20 such re-surveys though we were able to bring them in correspondence with the original surveys only in 17 cases.

TABLE No. 13

Consumption of cereals and pulses in oz. per consumption unit per day by monthly income in seven sets of studies from Travancore.

Set No.	Year of Study	Income per month				
		Below Rs. 10	Rs. 11-20	Rs. 21-50	Rs. 51-100	Above Rs. 100
I	1942	7.4	14.4	18.0	16.8	19.2
II	1941-42	8.0	14.8	19.9	17.4	19.7
III	1942	11.6	15.6	18.5	19.0	19.9
IV	1941-42	10.7	16.1	19.3	19.1	22.6
V	1943	8.1	12.2	16.2	18.4	19.3
VI	1942	6.7	10.8	21.3	23.2	—
VII	1946	12.6	15.7	16.0	17.8	—

Besides the 17 original and their 17 re-surveys, there remain 56 studies. Out of these only 8 show sub-standard consumption of foodgrains. All of them were made after 1943. Four of them relate to aboriginals and three to agricultural labour-families. We shall now describe the results of the 17 re-surveys.

Four groups of aboriginal families from Chakradharpur and Jagannathpur in Singhbhum district were originally surveyed during November 1940 to April 1941. They were re-surveyed in September 1943 in order to study the effect of the rise in prices and the shortage of foodgrains. The results are striking. They are outlined in Table No. 14. In both the periods, the diets contained nothing but cereals, pulses and vegetables.

TABLE No. 14

Consumption in oz. per consumption unit per day in a set of four diet studies from Bihar.

Study No.	I		II		III		IV	
	Survey	Re-survey	Survey	Re-survey	Survey	Re-survey	Survey	Re-survey
Cereals	17.8	12.86	19.5	9.39	21.2	10.62	23.0	11.44
Pulses	0.6	0.97	0.8	3.81	0.8	0.16	0.9	1.03
Vegetables	0.9	1.16	1.4	1.94	1.6	1.30	1.6	0.81

It is clear that in all the four groups of families, the consumption of cereals went down very considerably without adequate increase in the consumption of pulses or vegetables.

There is a record of another set of six re-surveys. Six groups of aboriginal families in Santhal Paraganas were originally surveyed during October 1938 to March 1939. They were re-surveyed during October-November 1943. As in the above studies, the diets contained nothing except cereals, pulses and vegetables. The results are given in Table No. 15.

TABLE No. 15

Consumption in oz. per consumption unit per day in a set of six diet studies of aboriginal families from Bihar.

Items	Study No. I	II	III	IV	V	VI
			Original survey			
Cereals	16.2	20.1	19.3	20.4	13.1	14.9
Pulses	0.4	0.6	0.2	0.8	0.5	3.9
Vegetables	2.5	2.5	2.4	2.3	1.2	2.6
			Re-survey			
	I	II	III	IV	V	VI
Cereals	13.56	10.63	14.12	18.90	24.30	11.30
Pulses	0.14	—	—	0.32	0.15	0.15
Vegetables	2.11	2.62	1.18	1.23	3.85	2.88

Thus with one single exception, all the six studies show large reductions in the consumption of cereals without any compensating increase in the other items.

Another set of re-surveys relates to three distinct groups of families in Manbhum district. One was a group of leper families; another a group of agricultural families and the third, a group of agricultural and industrial workers' families. These three groups were first surveyed between November 1939 and May 1940 and re-surveyed in May-July 1944. The results are given in Table No. 16.

TABLE No. 16

Consumption in oz. per consumption unit per day in a set of three studies from Bihar.

Items	Lepers		Ag. labour		Ag. & Indus. labour	
	Survey	Re-survey	Survey	Re-survey	Survey	Re-survey
Cereals	25.5	23.1	26.6	20.8	14.1	20.0
Pulses	1.7	2.5	1.3	0.9	0.6	0.5
Vegetables	6.8	2.8	2.8	2.5	4.1	1.2
Oil, ghee, milk, meats	2.5	1.0	1.6	0.3	1.1	0.2

The three groups, different as they are, seem to have reacted differently to the new situation. The leper families were able to maintain their foodgrains consumption at a considerable sacrifice of vegetables, milk etc. The agricultural labour lost everywhere and particularly in cereals and milk, meat etc. The agricultural and industrial labour on the other hand actually increased their consumption of cereals at a considerable sacrifice of vegetables, milk, etc.

The composition of the last named group, namely, of the agricultural and industrial workers is somewhat ambiguous and it is not clear how many from the group were indeed industrial workers. There is nevertheless another set of four studies relating to the coal mining workers at Jharia coal fields in Manbhum district and the results of the re-survey are instructive. They are given in Table No. 16.

TABLE No. 17

Consumption in oz. per consumer unit per day in a set of four diet studies relating to the coal mining workers in Bihar.

Items	Study No. I		II		III		IV	
	Survey	Re-survey	Survey	Re-survey	Survey	Re-survey	Survey	Re-survey
Cereals	6.9	23.41	22.8	23.73	27.4	21.79	23.6	21.09
Pulses	3.9	2.97	4.0	3.13	3.9	2.52	4.2	2.82
Vegetables	13.1	4.02	8.8	5.33	4.8	6.04	4.4	6.40
Oil, ghee, milk, meat	14.6	0.94	9.3	1.68	3.5	11.06	2.3	4.90

The rather very different pattern of consumption shown by the first group in its original survey seems to be of doubtful reliability. Presumably, some spurious elements have entered into the results leading to the very low consumption of cereals and very high consumption of vegetables, milk, meat, etc. Consumption pattern of this group in the re-survey is normal and similar to that of the other groups but on account of the abnormal features in the original survey, the comparison of the re-survey with the original is invalidated. The other three groups have been able, more or less, to maintain their consumption levels and in the third and the fourth groups where the consumption of cereals and pulses has somewhat decreased, this is amply compensated by increased consumption of vegetables, milk and meats. On the whole, therefore, we might say that the coal miners were able to maintain and in some cases were able somewhat to improve the standard of their diet in the face of rising prices. This, of course, they were

able to achieve on account of their increaed incomes due to increased wages and supplementary dearness allowances.

To sum up, in spite of their limited generality, these diet studies in Madras, Travancore-Cochin and Bihar might be regarded as sufficient indication of the existence, in certain parts of the country, of sections of population living on diets sub-standard even in respect of foodgrains. As disclosed by these studies, these areas are largely located in the southern and mid-eastern States of the Indian Union and the people concerned are predominently agricultural labourers in general and the Scheduled castes and the aboriginals in particular. If the studies were done at a time when prices were high and foodgrains were in short supply, the results might at least be taken to indicate the vulnerability of these sections of the population.

CHAPTER III

AGRICULTURAL LABOUR ENQUIRY (1950-51)

As described in the previous Chapter, the Diet Surveys, though lacking in representative character, serve to focus attention on the standards of consumption among certain sections of the population, particularly the agricultural labour. Fortunately, there are now available the results of a comprehensive and large scale enquiry into the working and living conditions of the agricultural labour all over India conducted by the Ministry of Labour, Government of India, during 1950-51. The object of the Enquiry was to collect comprehensive data on the economic conditions of agricultural labour with a view to formulating for them protective and ameliorative measures including the fixation of minimum wages. The Enquiry was conducted in three stages and covered a sample of about 800 villages selected from all over India on the basis of stratified random sampling. The first stage was a General Village Survey, in which broad data relating to the selected villages, easily available either from village records or from village officers, were collected. A General Family Survey, which followed as the second stage and covered a sample of about 100,000 families, was intended to gather data regarding all the families in the sample villages with a view to delimiting agricultural labour families and providing a background for a proper appreciation of the results of the third and final stage of the Enquiry, namely, an Intensive Family Survey of a sample of about 11,000 agricultural labour families from the selected villages. The data collected during the Intensive Family Survey related to the year from March 1950 to February 1951 and covered a variety of relevant subjects such as employment, wages, income and cost and standard of living of the agricultural labour families. From the standpoint of the present study, the data relating to the cost and standard of living are the most important.

With a country as vast as India, a certain amount of variation in the working and living conditions of the population is to be expected in different parts of the country. One of the commendable features of the Agricultural Labour Enquiry is that the collected data have been tabulated and made available separately not only for the different States but also for a certain number of zones or regions into which the larger States were divided, for purposes of the Enquiry, as showing markedly different agro-economic conditions. Thus the data are available for a total of 72 regions into which the country

was so divided. However, for a few of these regions, the number of agricultural labour families included in the Intensive Family Survey was rather small. Therefore, for purposes of the following discussion, these regions were suitably combined with the adjoining regions thus reducing the total number of separate regions to 63. For convenience of presentation, they were also renumbered and divided into three groups, broadly comprising the North and North-west India, the Eastern India and the Southern India respectively. In the following, the coverage of each of these regions is given for identification and ready reference.

Agricultural Labour Enquiry Regions.

1. *Jammu and Kashmir.*
2. *Punjab and Bilaspur.*
3. *Himachal Pradesh.*
4. *PEPSU.*
5. *Delhi.*
6. *West Uttar Pradesh* :—Zone III of A.L.E. comprising the districts of Saharanpur, Muzaffarnagar, Meerut, Bulandshahr, Aligarh, Mathura, Agra, Mainpuri, Etawah, Farrukhabad, Shahjahanpur, Etah, Budaun, Bareilly, Rampur, Moradabad and Bijanor.
7. *North Uttar Pradesh* :—Zones IV and V of A.L.E. comprising the districts of Almora, Garhwal, Tehri-Garhwal, Nainital, Kheri, Gonda, Bahraich, Pilibhit and Dehra Dun.
8. *Central Uttar Pradesh* :—Zone II of A.L.E. comprising the districts of Faizabad, Sultanpur, Pratapgarh, a part of Allahabad, Fatehpur, Rae-Bareili, Bara Banki, Lucknow, Unnao, Kanpur, Hardoi and Sitapur.
9. *South Uttar Pradesh* :—Zone VI of A.L.E. comprising the districts of Jhansi, Jalaun, Hamirpur, Banda, Mirzapur and parts of Banaras and Allahabad.
10. *East Uttar Pradesh* :—Zone I of A.L.E. comprising the districts of Basti, Gorakhpur, Deoria, Azamgarh, Ballia, Ghazipur, part of Banaras and Jaunpur.
11. *West Vindhya Pradesh* :—Zone III of A.L.E. comprising the districts of Datia, Chhatarpur and Tikamgarh.
12. *North Madhya Bharat* :—Zone I of A.L.E. comprising the districts of Morena, Bhind, Gwalior, Gird and Shivpuri.
13. *Bhopal.*
14. *North Madhya Pradesh* :—Zone II of A.L.E. comprising the districts of Jabalpur, Saugar, Hoshangabad, Betul, Mandla (excluding Mandla tehsil) and Chhindwara (excluding Sausar and Seoni tehsils).
15. *North-west Rajasthan* :—Zone I of A.L.E. comprising Jaipur Division.

16. *East Rajasthan* :—Zones II and IV of A.L.E. comprising Divisions of Jodhpur and Bikaner.
17. *South-west Rajasthan* :—Zones III and V of A.L.E. comprising the Divisions of Udaipur and Kotah.
18. *Ajmer.*
19. *Kutch.*
20. *Saurashtra.*
21. *Bombay-Gujarat* :—Zone I of A.L.E. comprising the districts of Ahmedabad, Kaira, Sabar Kantha, Panch Mahals, Broach, Surat, Mehsana and Amreli.
22. *Assam Frontier* :—Zone III of A.L.E. and Manipur State, the former comprising the districts of Garo, Khasi, Jaintia, Naga and Lushai Hill and the Mikir Hills of the Sibsagar and Nowgong districts and the frontier tract of Balipara and Sadiya.
23. *Assam Tea Region* :—Zone II of A.L.E. comprising the districts of Lakhimpur and Sibsagar excluding the Mikir Hills, Tezpur sub-division of Darrang, part of Nowgong and Cachar in the Surma valley including Karimganj but excluding the north Cachar hills.
24. *Assam Plains* :—Zone I of A.L.E. comprising the districts of Goalpara, Kamrup and parts of Darrang and Nowgong.
25. *Tripura.*
26. *West Bengal I (North)* :—Darjeeling (excluding Siliguri subdivision).
27. *West Bengal II and VIII (North)* :—Siliguri of Darjeeling subdivision, Jalpaiguri and Cooch-Behar.
28. *West Bengal III (North)* :—West Dinajpur and Malda (on the east of the Godagari-Katihar railway line).
29. *West Bengal IV (Central)* :—Malda (on the west of the Godagari-Katihar railway line), Nalhati and Muraroi police stations of Birbhum, Burdwan (excluding Asansol sub-division) Hooghly, Howrah, Midnapore (excluding Jhargram and Sadar sub-divisions), northern portions of Contai and Tamluk, 24 Paraganas (excluding southern portion near the coast), and Murshidabad (excluding Sadar sub-division).
30. *West Bengal VII (East)* :—Sadar sub-division of Murshidabad and the district of Nadia.
31. *West Bengal V (Coastal)* :—Southern portion of 24 paraganas and of Contai and Tamluk.
32. *West Bengal VI (West)* :—Bankura, Birbhum (excluding Nalhati and Muraroi police stations) Jhargram and Sadar sub-divisions of Midnapore and Asansol of Burdwan.
33. *North-east Bihar* :—Zone I of A.L.E. comprising the districts of North Bhagalpur, North Monghyr and Purnea.

34. *North-west Bihar* :—Zone II of A.L.E. comprising the districts of Muzaffarpur, Saran, Champaran and Darbhanga.
35. *Central Bihar* :—Zone III of A.L.E. comprising the districts of Patna, Gaya, Shahabad, South Monghyr and South Bhagalpur.
36. *South Bihar* :—Zone IV of A.L.E. comprising the entire division of Chota Nagpur including Saraikela, Kharswan and the district of Santhal Parganas.
37. *East Vindhya Pradesh* :—Zone I of A.L.E. comprising the districts of Sidhi and Shahdol.
38. *Central Vindhya Pradesh* :—Zone II of A.L.E. comprising the districts of Panna, Rewa and Satna.
39. *North-east Orissa* :—Zone I of A.L.E. comprising the districts of Keonjhar, Balasore, Mayurbhanj, Cuttack, Puri and the Ganjam Plains.
40. *South-east Orissa* :—Zone II A.L.E. comprising the district of Koraput, Ganjam Agency, Phulbani and Dhenkanal.
41. *West Orissa* :—Zone III of A.L.E. comprising the districts of Bolangir-Patna, Kalahandi, Sambalpur and Sundergarh.
42. *East Madhya Pradesh* :—Zone III of A.L.E. comprising the districts of Bastar, Surguja, Raigarh, Raipur, Drug, Bilaspur, Bhandara, Balaghat, Chanda (excluding Warora tehsil) and the tehsils of Mandla and Seoni.
43. *South Madhya Bharat* :—Zone II and IV of A.L.E. comprising the districts of Indore, Rajgarh, Mandsaur, Bhilsa, Ratlam, Goona, Ujjain, Shajapur, Dhar, Dewas and Jhabua.
44. *Nimar-Madhya Bharat* :—Zone III of A.L.E. comprising the district of Nimar.
45. *North Deccan (Bombay)* :—Zone II of A.L.E. comprising the districts of West Khandesh, East Khandesh, Nasik and Ahmednagar.
46. *Central Deccan (Bombay)* :—Zone III of A.L.E. comprising the districts of Poona, North Satara, South Satara and Sholapur.
47. *South Deccan (Bombay)* :—Zone IV of A.L.E. comprising the districts of Bijapur, Belgaum, Kolhapur and Dharwar.
48. *Bombay Coastal* :—Zone V of A.L.E. comprising the districts of Thana, Kolaba, Ratnagiri and North Karwar.
49. *West Madhya Pradesh* :—Zone I of A.L.E. comprising the districts of Amravati, Buldana, Akola, Yeotmal, Nagpur, Wardha, Nimar and Warora tehsil of Chanda and Sausar tehsil of Chhindwara.
50. *West Hyderabad* :—Zone I of A.L.E. comprising Marathawada.
51. *East Hyderabad* :—Zone II of A.L.E. comprising Telangana.
52. *Agency Andhra* :—Madras Zone VII of A.L.E. comprising the agency tracts of Visakhapatnam and Godavari East.
53. *North Andhra* :—Madras Zone I of A.L.E. comprising the Plains

of Visakhapatnam and Godavari East, the districts of Godavari West, Krishna, Guntur and certain parts of Nellore and Chingleput.

54. *South Andhra* :—Madras Zone III of A.L.E. comprising the districts of Bellary, Anantpur, Cuddapah, and Kurnool, Darsi, Kanigiri and Podile taluks of Nellore and Sandur.

55. *East Madras* :—Madras Zone II of A.L.E. comprising the irrigated taluks of South Arcot, North Arcot, Tiruchirapalli and Madurai and districts of Tanjore, Ramanathpuram and Tirunelveli.

56. *Central Madras* :—Madras Zone IV of A.L.E. comprising the dry taluks of South and North Arcot, Tiruchirapalli, Madurai and the districts of Chittoor, Salem and Coimbatore.

57. *West Madras* :—Madras Zone V comprising the districts of Malabar and South Kanara.

58. *Niligiri-Madras* :—Madras Zone VI of A.L.E. comprising the districts of Niligiris.

59. *South Mysore* :—Zone I of A.L.E. comprising the greater part of the State, mostly plain country.

60. *West Mysore and Coorg* :—Mysore Zone II of A.L.E. comprising the hilly tracts of the west and Coorg.

61. *North Mysore* :—Zone III of A.L.E. comprising the dry regions.

62. *Travancore.*

63. *Cochin.*

The General Family Survey provides estimates of the proportions of agricultural labour families among all rural families in each State or in each region within a State and hence also provides estimates of the number of agricultural labour families in them. In the first two columns of Table No. 18, we give for each State or for each region, the proportion of agricultural labour families among all rural families as estimated by the General Family Survey and the estimated number of agricultural labour families based on it. The General Family Survey distinguished labour families into two categories, namely, those possessing land and those without any land. In the next two columns of Table No. 18, are shown the proportions, among agricultural labour families, of those with land and those without land. Finally, in the last column of the table, are given the number of agricultural labour families included in the sample of families chosen for the Intensive Family Survey.

It will be seen that the proportion of agricultural labour families to all rural families is rather small in the North and Northwest India. It is very small in Punjab, Rajasthan and the neighbouring States where it is usually less than 10 per cent of all rural families. It is also small in Uttar Pradesh where it is between 10 to 15 per cent. Slightly to the south, that is in the Central states of Vindhya

TABLE No. 18

Agricultural labour families in different regions.
(Agricultural Labour Enquiry, 1950-51)

Region	Ag. labour families as percent of all rural families	Estimated number of Ag. families (lakhs)	Proportions among Ag. labour families with land	without land	Number of Ag. labour families for Intensive Survey
North and North-west India					
1. Jammu and Kashmir	3.37	0.19	72.47	27.53	69
2. Punjab, Bilaspur	10.11	1.33	26.37	73.63	295
3. Himachal Pradesh	19.53	0.27	53.03	46.96	63
4. PEPSU	13.29	0.70	6.25	93.74	160
5. Delhi	4.35	0.03	2.33	97.67	43
6. West Uttar Pradesh	12.90	4.73	17.66	82.34	538
7. North Uttar Pradesh	11.96	1.23	47.00	53.00	100
8. Central Uttar Pradesh	14.18	3.91	52.61	47.39	403
9. South Uttar Pradesh	14.46	1.54	27.94	72.06	136
10. East Uttar Pradesh	17.73	4.22	65.92	34.08	361
11. West Vindhya Pradesh	24.84	0.48	65.72	34.28	70
12. North Madhya Bharat	10.05	0.33	53.63	46.37	69
13. Bhopal	46.08	0.70	52.14	47.86	117
14. North Madhya Pradesh	26.77	2.50	37.11	62.37	264
15. North-west Rajasthan	12.20	1.17	68.99	31.01	158
16. East Rajasthan	8.06	0.48	25.30	74.70	71
17. South-west Rajasthan	6.79	0.37	46.80	53.20	47
18. Ajmer	9.09	0.07	65.56	34.42	61
19. Kutch	20.39	0.23	2.22	97.77	90
20. Saurashtra	19.95	0.99	1.80	98.19	111
21. Bombay-Gujarat	15.05	2.04	9.46	90.53	317

TABLE No. 18 —(*contd.*)

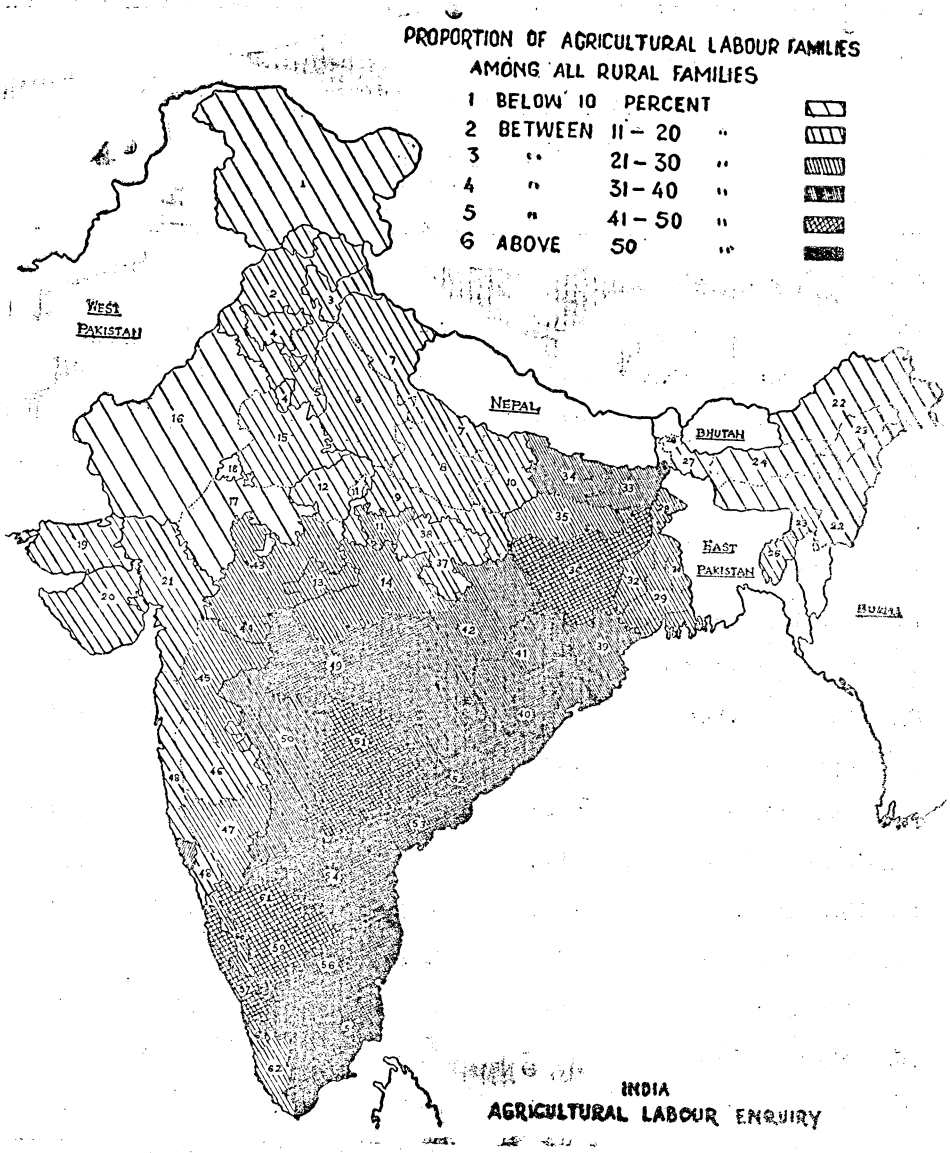
Agricultural labour families in different regions.
(Agricultural Labour Enquiry, 1950-51)

Region	Ag. labour families as percent of all rural families	Estimated number of Ag. families (lakhs)	Proportions among Ag. labour families with land	without land	Number of Ag. labour families for Intensive Survey
Eastern India.					
22. Assam Frontier	5.24	0.30	12.29	87.66	65
23. Assam Tea region	13.17	0.98	42.85	57.13	91
24. Assam Plains	8.62	0.50	9.37	90.61	64
25. Tripura	17.93	0.21	—	100.00	33
26. West Bengal I (North)	45.76	0.31	51.35	48.65	74
27. W. B. II—VIII (North)	14.71	0.47	8.00	92.00	75
28. W. Bengal III (North)	29.01	1.00	56.24	43.74	48
29. W. Bengal IV (Central)	20.48	3.31	27.46	72.51	273
30. W. Bengal VII (East)	24.08	1.14	50.00	50.00	42
31. W. Bengal V (Coastal)	23.81	0.66	50.00	50.00	46
32. Western W. Bengal VI	22.83	2.43	44.63	55.35	233
33. North-east Bihar	40.44	3.76	51.87	48.13	187
34. North-west Bihar	39.30	9.91	62.69	37.31	319
35. Central Bihar	32.27	4.32	65.24	34.76	283
36. South Bihar	45.25	8.62	2.05	97.95	440
37. East Vindhya Pradesh	17.15	0.31	52.54	47.46	59
38. Central Vindhya P.	20.09	0.53	29.24	70.75	106
39. North-east Orissa	37.62	5.73	75.39	24.60	317
40. South-east Orissa	55.72	3.73	62.70	37.28	177
41. West Orissa	42.39	2.82	35.71	64.28	140
42. East Madhya Pradesh	33.77	6.48	37.15	62.82	479

TABLE No. 18—(*Contd.*)

Agricultural labour families in different regions.
(Agricultural Labour Enquiry, 1950-51)

Region	Ag. labour families as percent of all rural families	Estimated number of Ag. families (lakhs)	Proportions among Ag. labour families with land	without land	Number of Ag. labour families for Intensive Survey
Southern India					
43. South Madhya Bharat	23.22	2.07	27.03	72.97	159
44. Nimar-Madhya Bharat	29.45	0.40	15.50	84.50	71
45. North Deccan	30.62	2.50	36.92	63.07	130
46. Central Deccan	19.27	1.47	57.14	42.85	98
47. South Deccan	27.27	2.30	52.41	47.56	206
48. Bombay coastal	10.09	1.57	53.12	46.87	96
49. West Madhya Bharat	60.27	5.98	23.22	76.75	297
50. West Hyderabad	40.12	5.81	38.58	61.40	298
51. East Hyderabad	43.94	7.27	51.40	48.58	319
52. Agency Andhra	55.08	0.75	49.19	50.81	61
53. North Andhra	52.41	13.19	34.65	65.32	375
54. South Andhra	65.46	4.46	46.16	53.84	117
55. East Madras	58.11	13.45	51.57	48.41	411
56. Central Madras	56.13	15.15	53.58	46.39	375
57. West Madras	40.44	3.96	63.26	36.73	147
58. Nilgiri-Madras	42.79	0.19	38.77	61.22	49
59. South Mysore	44.81	0.63	66.79	33.21	253
60. West Mysore	23.81	1.12	41.87	58.13	46
61. North Mysore	42.06	3.71	42.43	57.57	106
62. Travancore	30.59	3.45	60.20	39.80	201
63. Cochin	50.57	1.71	28.91	71.08	83


PROPORTION OF AGRICULTURAL LABOUR FAMILIES AMONG ALL RURAL FAMILIES
1 BELOW 10 PERCENT
2 BETWEEN 11 – 20 "
3 " 21 – 30 "
4 " 31 – 40 "
5 " 41 – 50 "
6 ABOVE 50 "
WEST PAKISTAN
NEPAL
BHUTAN
EAST PAKISTAN
BURMA
INDIA
AGRICULTURAL LABOUR ENQUIRY

Pradesh and Madhya Pradesh, the proportion of agricultural labour families is considerably higher and lies between 20 and 25 per cent.

In the extreme East, that is, in Assam, the proportion of agricultural families is again, small and is generally about 10 per cent. However as we proceed towards West, through West Bengal, Bihar and Orissa, this proportion increases. In West Bengal, the proportion is between 20 to 25 per cent; while in Bihar and Orissa the proportion is as high as 40 per cent of all rural families. It is also considerable in Madhya Pradesh.

In the extreme West, namely, in Saurashtra, Kutch and Bombay, the proportion is moderate and is generally between 15 to 20 per cent. However, as we proceed South, through Hyderabad and Madras, the proportion becomes very high. In all the southern regions, the proportion is practically everywhere above 40 per cent and in certain regions of Madras, it is as high as 60 per cent.

It is thus obvious that there exists a continuous belt beginning with the Eastern states of Bihar and Orissa and running through Madhya Pradesh and Hyderabad towards the South, where the incidence of agricultural labour population is very high. The proportion is also considerable in the Western and Central parts of the country as also in West Bengal in the East. It is only in the North and the North-West India and in the extreme Eastern state of Assam that the proportion is very small.

With a view to giving a broad idea of the standard of living among agricultural labour families in different regions, we give, in Table No. 19, their per family annual consumer expenditure and its distribution between principal items. It will be seen that in almost all regions, between 80 and 90 per cent of the total consumer expenditure is spent on food and between 5 and 10 per cent is spent on clothing.

For purposes of studying in greater detail the existing standard of living among the agricultural labour families, the Agricultural Labour Enquiry classified them into a number of classes based on what have been called "Economic Levels of Living". The economic level of living of a family is determined by the consumer expenditure per consumption unit in the family where the consumption units are calculated by taking its adult male members as full units and converting other members on the basis of their relative calorific requirements. For this purpose the relative coefficients suggested by Lusk were used. They are as under :

TABLE No. 19

Percentage distribution of average family expenditure on main items in different regions.

(Agricultural Labour Enquiry, 1950-51)

Region	Total per family annual expenditure Rs.	Percentage expenditure on Food	Clothing and footwear	Fuel & lighting	House rent & repairs	Service & miscellaneous
North and North-west India						
1. Jammu & Kashmir	785.3	90.1	4.8	1.2	0.1	3.8
2. Punjab, Bilaspur	718.2	85.0	7.6	0.8	0.4	6.2
3. Himachal Pradesh	656.4	88.1	3.1	0.7	1.7	6.4
4. PEPSU	829.2	82.8	6.0	1.0	0.3	9.9
5. Delhi	772.0	75.5	12.6	1.3	2.7	7.9
6. West Uttar P.	531.0	79.5	10.9	1.1	0.8	7.7
7. North Uttar P.	430.2	86.0	6.3	0.8	1.1	5.8
8. Central Uttar P.	499.4	85.6	6.7	1.2	0.8	5.7
9. South Uttar P.	510.9	79.6	9.5	2.5	0.9	7.5
10. East Uttar P.	643.8	90.2	5.3	0.5	0.5	3.5
11. West Vindhya P.	411.9	89.1	6.2	0.8	—	3.9
12. North Madhya B.	658.9	83.3	10.0	0.8	0.4	5.5
13. Bhopal	452.2	80.8	9.6	1.0	0.7	7.9
14. North Madhya P.	523.0	91.8	4.8	0.5	0.1	2.8
15. North-west Rajasthan	558.2	85.0	8.3	0.8	0.3	5.6
16. East Rajasthan	667.9	85.6	10.2	0.6	—	3.6
17. South-west Raj.	430.9	76.2	16.2	0.9	0.1	6.6
18. Ajmer	620.5	77.6	11.0	0.9	0.7	9.8
19. Kutch	592.8	80.0	6.8	4.7	0.6	7.9
20. Saurashtra	590.4	80.3	11.8	2.1	1.2	4.6
21 Bombay-Gujarat	550.8	87.0	6.3	1.8	0.4	4.5

TABLE No. 19—(*contd.*)

Percentage distribution of average family expenditure on main items in different regions.

(Agricultural Labour Enquiry, 1950-51)

Region	Total per family annual expenditure Rs.	Percentage expenditure on Food	Clothing and footwear	Fuel & lighting	House rent & repairs	Service & miscellaneous
Eastern India.						
22. Assam Frontier	498.0	78.1	5.4	2.1	0.8	13.6
23. Assam Tea Region	574.6	85.7	4.2	1.2	1.6	7.3
24. Assam Plains	638.3	87.6	4.8	1.1	0.9	5.6
25. Tripura	908.1	89.3	2.8	0.7	1.4	5.8
26. W.Bengal I (North)	1009.7	76.9	8.3	1.8	0.3	12.7
27. W. B. II-VIII (North)	856.5	88.5	4.0	1.2	0.4	5.9
28. W. B. III (North)	855.4	90.0	3.9	1.0	1.4	3.7
29. W. B. IV (Central)	580.0	84.9	5.0	1.3	1.0	7.8
30. W. B. VII (East)	561.2	90.3	2.6	1.1	0.7	5.3
31. W. B. V (Coastal)	557.1	83.8	4.2	1.8	1.4	8.8
32. W. B. VI (West)	594.3	82.9	5.5	1.2	0.8	9.6
33. North-east Bihar	644.1	90.0	4.7	0.7	1.4	3.2
34. North-west Bihar	551.8	90.9	4.4	0.8	0.7	3.2
35. Central Bihar	727.6	87.9	4.8	1.5	1.3	4.5
36. South Bihar	507.5	89.9	4.4	0.9	0.5	4.3
37. East Vindhya P.	380.6	89.6	4.6	0.7	—	5.1
38. Central Vindhya P.	331.1	89.5	4.8	1.0	0.4	4.3
39. North-East Orissa	365.0	84.7	6.8	1.1	1.7	5.7
40. South-East Orissa	304.5	83.5	6.3	2.9	0.8	6.5
41. Western Orissa	296.4	86.7	6.0	0.4	1.4	5.5
42. East Madhya P.	340.3	91.4	4.6	0.8	0.1	3.1

TABLE No. 19—(*contd.*)

Percentage distribution of average family expenditure on main items in different regions.

(Agricultural Labour Enquiry, 1950-51)

Region	Total per family annual expenditure Rs.	Percentage expenditure on Food	Clothing and footwear	Fuel & lighting	House rent & repairs	Service & miscellaneous
Southern India						
43. South Madhya B.	334.7	81.6	8.6	1.5	0.2	8.1
44. Nimar-Madhya B.	331.7	81.4	7.2	1.7	—	9.7
45. North Deccan	375.8	84.9	6.6	1.3	0.2	7.0
46. Central Deccan	273.8	84.2	6.9	2.0	—	6.9
47. South Deccan	277.5	77.5	15.5	1.5	0.2	5.3
48. Bombay Coastal	323.3	85.4	7.7	1.3	0.2	5.4
49. West Madhya P.	438.4	85.8	6.4	1.1	0.4	6.3
50. West Hyderabad	469.6	89.4	6.4	0.9	0.0	3.3
51. East Hyderabad	459.0	85.2	5.5	1.1	0.4	7.8
52. Agency Andhra	270.4	87.2	5.5	1.4	0.1	5.8
53. North Andhra	369.3	84.2	6.4	1.2	0.6	7.6
54. South Andhra	437.8	81.2	10.0	1.2	0.1	7.5
55. East Madras	369.6	82.2	6.8	0.9	0.9	9.2
56. Central Madras	375.1	83.4	6.8	1.2	1.0	7.6
57. West Madras	411.2	74.4	7.4	1.5	2.2	14.5
58. Nilgiri-Madras	449.7	78.3	8.9	1.1	0.9	10.8
59. Mysore-South	443.4	75.1	8.3	2.0	4.2	10.4
60. West-Mysore	542.2	81.0	6.6	1.3	0.8	10.3
61. North-Mysore	371.2	78.6	11.6	1.6	0.2	8.0
62. Travancore	573.9	81.6	3.8	1.2	1.5	11.9
63. Cochin	473.3	75.7	4.2	1.7	3.8	14.6

		Consumption unit.
Men above 14 years	..	1.00
Women above 14 years	..	0.83
Children between 10-14	..	0.83
Children between 6-10	..	0.70
Children between 1-6	..	0.50
Children below 1 year	..	0.00

In Table No. 20, we give distributions of agricultural labour families in different regions according to the economic levels of living. It will be seen that in the North-western states, namely, in Punjab, PEPSU and the neighbouring states, the proportion of families living with consumer expenditure per consumption unit below Rs. 100 is indeed very small. It is also negligible in the extreme Western states of Kutch and Saurashtra. In the Northern states of Delhi and Uttar Pradesh, as also in Rajasthan, North Madhya Pradesh and Bombay Gujarat, this proportion is between 5 and 10 per cent. In East Uttar Pradesh, North Vindhya Pradesh, North Madhya Bharat and Bhopal, the proportion is about 15 per cent.

The proportion of families living under Rs. 100 per consumption unit is also very small in Assam and in North and Central West Bengal. In South and West regions of West Bengal and in Bihar the proportion is between 5 and 10 per cent. However, the proportion is very high in Central and South Vindhya Pradesh, in East Madhya Pradesh and in Orissa where it ranges between 40 and 60 per cent.

The proportion of families with consumer expenditure of under Rs. 100 is generally high in the South. In South-west Madhya Pradesh and in Hyderabad, as also in Mysore and Travancore-Cochin the proportion is between 20 and 30 per cent. In Andhra and Madras it is between 30 and 40 per cent. In certain regions such as South Madhya Bharat, Central and South Bombay Deccan and in Agency Tract of Andhra, the proportion is as high as 60 per cent.

It should be noted that in most of these regions, with very low living standards, the proportions of agricultural labour families among their rural population are also very high. In all these regions a large majority of the agricultural labour families, nearly 90 per cent, would be found to live with consumer expenditure under Rs. 200 per consumption unit.

It is obvious that this low standard of living would necessarily mean subsisting on diets inadequate even in respect of quantities of staple foodgrains. In Table No. 21, we show the average consumption of foodgrains, that is of cereals and pulses, in oz. per day per consumption unit, in families living at different economic levels

of living. In the following graphs, the same figures are shown graphically in a graduated form. It will be seen that in practically every region, the consumption of foodgrains by families with low consumer expenditure is considerably below the consumption by families, living side by side, with somewhat higher consumer expenditure. It is thus clear that there live in this country, with large concentrations in certain regions, families who for want of income live on quantitatively inadequate diets and who thus remain underfed even in staple foodgrains. The indications of the Diet Studies presented in the previous chapter are thus amply borne out by the results of the Agricultural Labour Enquiry.

TABLE No. 20

Percentage distribution of families by Economic Levels of Living in different regions.

(Agricultural Labour Enquiry, 1950-51)

Region	Proportion of families with consumer expenditure per consumption unit not more than				
	Rs. 100	Rs. 150	Rs. 200	Rs. 250	Rs. 300
North and North-west India					
1. Jammu and Kashmir	—	13.0	53.6	73.9	89.3
2. Punjab, Bilaspur	1.7	23.6	57.8	77.0	88.3
3. Himachal Pradesh	—	4.5	21.2	39.4	60.6
4. PEPSU	2.5	13.8	46.3	65.7	79.5
5. Delhi	7.0	23.3	41.9	53.5	69.3
6. West Uttar Pradesh	5.9	29.7	56.8	74.1	81.7
7. North Uttar Pradesh	8.0	34.0	62.0	79.0	86.0
8. Central Uttar Pradesh	4.9	39.9	72.9	88.3	93.8
9. South Uttar Pradesh	8.8	44.1	71.3	83.8	91.2
10. East Uttar Pradesh	11.7	39.4	62.1	78.2	89.3
11. West Vindhya Pradesh	15.7	67.1	94.2	98.5	100.0
12. North Madhya Bharat	15.9	39.1	66.6	84.0	89.6
13. Bhopal	13.7	63.3	88.1	92.4	96.7
14. North Madhya Pradesh	3.8	33.0	72.0	94.7	99.2
15. North-West Rajasthan	4.4	36.7	73.4	86.7	91.8
16. East Rajasthan	8.5	37.0	76.5	87.8	92.0
17. South-West Rajasthan	6.4	21.3	59.6	80.8	95.7
18. Ajmer	—	19.7	60.6	88.5	93.4
19. Kutch	—	8.9	42.2	66.6	76.6
20. Saurashtra	2.7	38.7	67.5	83.7	95.4
21 Bombay-Gujarat	9.7	44.7	75.6	90.4	94.5

TABLE No. 20—(*contd.*)

Percentage distribution of families by Economic Levels of Living in different regions.

(Agricultural Labour Enquiry, 1950-51)

Region	Proportion of families with consumer expenditure per consumption unit not more than				
	Rs. 100	Rs. 150	Rs. 200	Rs. 250	Rs. 300
Eastern India.					
22. Assam Frontier	3.1	21.5	47.6	64.5	69.1
23. Assam Tea Region	5.6	25.4	54.0	90.7	98.4
24. Assam Plains	—	3.1	18.7	45.3	70.3
25. Tripura	—	—	6.1	18.2	36.4
26. W. Bengal I (North)	—	2.7	23.0	51.4	78.4
27. W. B. II—VIII (North)	1.3	3.9	11.8	31.7	49.0
28. W. B. III (North)	—	8.3	25.0	43.7	66.6
29. W. B. IV (Central)	1.1	20.1	57.1	80.2	90.5
30. W. B. VII (East)	4.8	14.3	31.0	54.8	78.6
31. W. B. V (Coastal)	6.5	28.2	65.2	82.6	95.6
32. Western W. B. VI	7.7	30.4	68.6	89.2	95.6
33. North-East Bihar	4.3	24.1	64.2	80.8	91.0
34. North-West Bihar	11.2	45.1	70.5	85.5	90.5
35. Central Bihar	1.4	25.2	56.8	75.2	86.2
36. South Bihar	15.2	55.4	75.6	84.9	92.6
37. East Vindhya Pradesh	35.6	72.9	86.5	89.9	100.0
38. Central Vindhya Pradesh	52.8	89.6	99.0	99.0	100.0
39. North-East Orissa	37.9	82.7	93.4	96.2	97.5
40. South-East Orissa	61.0	93.5	98.0	99.1	99.7
41. West Orissa	57.9	92.9	96.5	97.9	99.3
42. East Madhya Pradesh	59.3	93.1	99.8	100.0	100.0

TABLE No. 20—(*contd.*)

Percentage distribution of families by Economic Levels of Living in different regions.

(Agricultural Labour Enquiry, 1950-51)

Region	Proportion of families with sonsumer expenditure per consumption unit not more than				
	Rs. 100	Rs. 150	Rs. 200	Rs. 250	Rs. 300
Southern India					
43. South Madhya Bharat	58.4	87.3	96.1	97.9	99.1
44. Nimar Madhya B.	49.3	83.1	98.6	100.0	100.0
45. North Deccan	34.6	90.8	97.7	99.2	100.0
46. Central Deccan	76.5	96.9	98.9	98.9	98.9
47. South Deccan	64.0	92.0	100.0	100.0	100.0
48. Bombay Coastal	43.7	81.2	95.8	100.0	100.0
49. West Madhya Pradesh	25.2	73.3	91.1	99.2	100.0
50. West Hyderabad	21.8	74.5	92.3	96.7	97.4
51. East Hyderabad	26.3	79.9	91.8	96.8	99.1
52. Agency Andhra	59.0	91.8	100.0	100.0	100.0
53. North Andhra	30.9	67.9	87.1	95.9	97.8
54. South Andhra	44.4	75.2	93.1	95.7	98.3
55. East Madras	32.8	74.6	91.6	97.4	99.1
56. Central Madras	41.0	81.3	94.4	97.0	98.9
57. West Madras	30.6	72.8	89.1	94.5	97.9
58. Nilgiri Madras	40.8	79.6	89.8	100.0	100.0
59. South Mysore	23.3	69.9	84.5	93.6	97.6
60. West Mysore	10.9	58.7	78.3	93.5	97.8
61. North Mysore	29.2	54.7	77.3	87.7	91.5
62. Travancore	20.9	49.8	75.2	85.6	93.1
63. Cochin	31.3	73.6	91.7	97.7	100.0

TABLE No. 21

Consumption of Cereals and Pulses in oz. per day per consumption unit at different Economic Levels of Living in different regions.
(Agricultural Labour Enquiry, 1950-51)

Region	Economic Levels of Living. Rs. 100	101-150	151-200	201-250	251-300	301 & above
North and North-west India.						
1. Jammu and Kashmir	—	20.9	25.6	26.3	35.3	39.14
2. Punjab, Bilaspur	15.1	22.4	22.4	27.1	26.3	28.4
3. Himachal Pradesh	—	20.6	20.2	23.2	23.6	22.8
4. PEPSU	11.9	16.2	21.3	23.1	23.8	30.2
5. Delhi	11.4	22.7	28.9	32.5	33.5	45.8
6. West Uttar Pradesh	16.2	25.2	27.0	33.9	40.7	56.8
7. North Uttar Pradesh	21.6	24.9	29.6	37.9	47.6	55.0
8. Central Uttar P.	14.6	22.4	29.2	36.1	36.1	47.8
9. South Uttar Pradesh	20.6	20.9	24.2	30.7	39.3	41.0
10. East Uttar Pradesh	16.8	22.0	27.4	36.4	38.8	56.4
11. West Vindhya P.	19.2	32.9	46.0	56.9	—	—
12. North Madhya Bharat	22.4	22.4	28.1	32.1	44.7	66.3
13. Bhopal	18.0	26.7	32.1	38.2	39.0	40.2
14. North Madhya P.	20.4	26.3	30.7	36.4	43.7	69.6
15. North-West Raj.	15.2	23.9	26.1	36.8	44.7	55.2
16. East Rajasthan	27.8	28.5	33.9	52.5	31.4	52.6
17. South-West Raj.	11.3	22.7	23.5	29.0	27.1	47.7
18. Ajmer	—	24.2	26.7	26.4	31.0	33.9
19. Kutch	—	15.1	20.2	24.9	26.3	38.3
20. Saurashtra	18.5	18.4	21.7	22.4	21.4	23.6
21. Bombay-Gujarat	12.9	18.4	21.3	20.2	24.9	23.1

TABLE No. 21—(*contd.*)

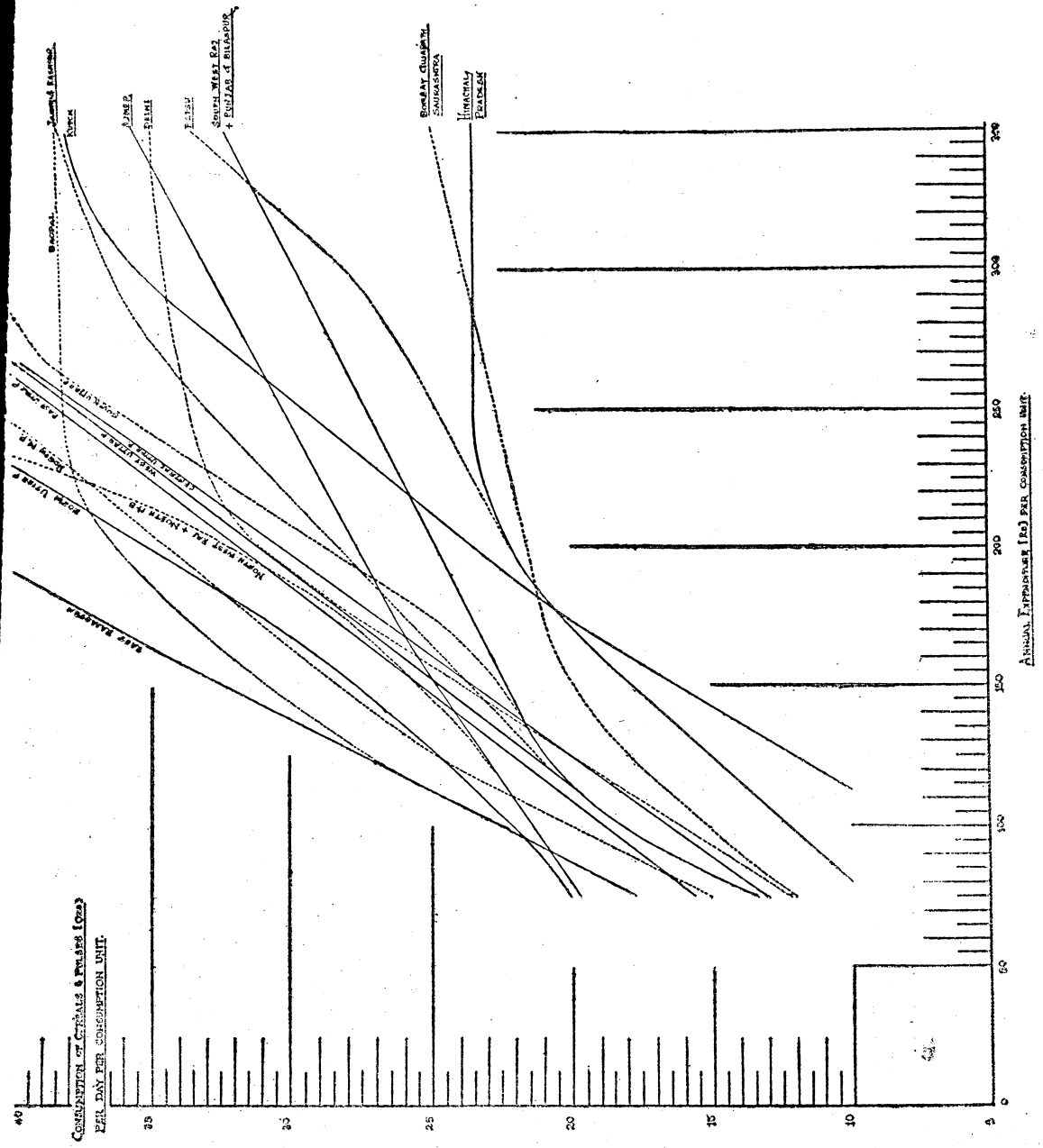
Consumption of Cereals and Pulses in oz. per day per consumption unit at different Economic Levels of Living in different regions.
(Agricultural Labour Enquiry, 1950-51)

Region	Economic Levels of Living. Rs. 100	101-150	151-200	201-250	251-300	301 & above
Eastern India.						
22. Assam Frontier	10.8	27.8	28.7	25.2	18.8	47.5
23. Assam Tea Region	10.1	14.8	22.7	27.8	29.6	14.1
24. Assam Plains	—	22.0	27.8	22.0	24.2	32.3
25. Tripura	—	—	22.7	22.4	29.2	32.6
26. W. Bengal I (North)	—	11.7	17.2	19.1	20.7	27.6
27. W. B. II-VIII (North)	—	—	13.3	16.6	21.6	33.1
28. W. B. III (North)	—	16.7	20.0	21.3	27.4	41.2
29. W. B. IV (Central)	10.8	14.8	18.8	20.9	24.2	24.7
30. W. B. VII (East)	9.4	14.1	16.6	18.4	22.0	25.8
31. W. B. V (Coastal)	—	.....	Not availalbe		.....	—
32. W. B. VI (West)	14.4	23.4	21.3	19.5	21.6	19.6
33. North-East Bihar	16.6	14.8	21.6	23.1	24.9	37.3
34. North-West Bihar	13.6	16.3	21.4	24.6	29.9	50.1
35. Central Bihar	20.2	18.1	21.0	26.7	32.5	41.1
36. South Bihar	12.8	17.7	22.0	26.3	32.8	38.5
37. East Vindhya P.	24.5	27.4	42.9	27.4	30.3	—
38. Central Vindhya P.	23.1	28.5	33.2	—	29.6	—
39. North-East Orissa	16.2	28.5	34.3	40.4	56.6	85.3
40. South-East Orissa	16.9	23.9	34.3	47.7	58.4	89.8
41. West Orissa	14.4	25.2	23.1	51.6	40.8	70.3
42. East Madhya P.	19.6	25.1	29.8	37.2	38.6	—

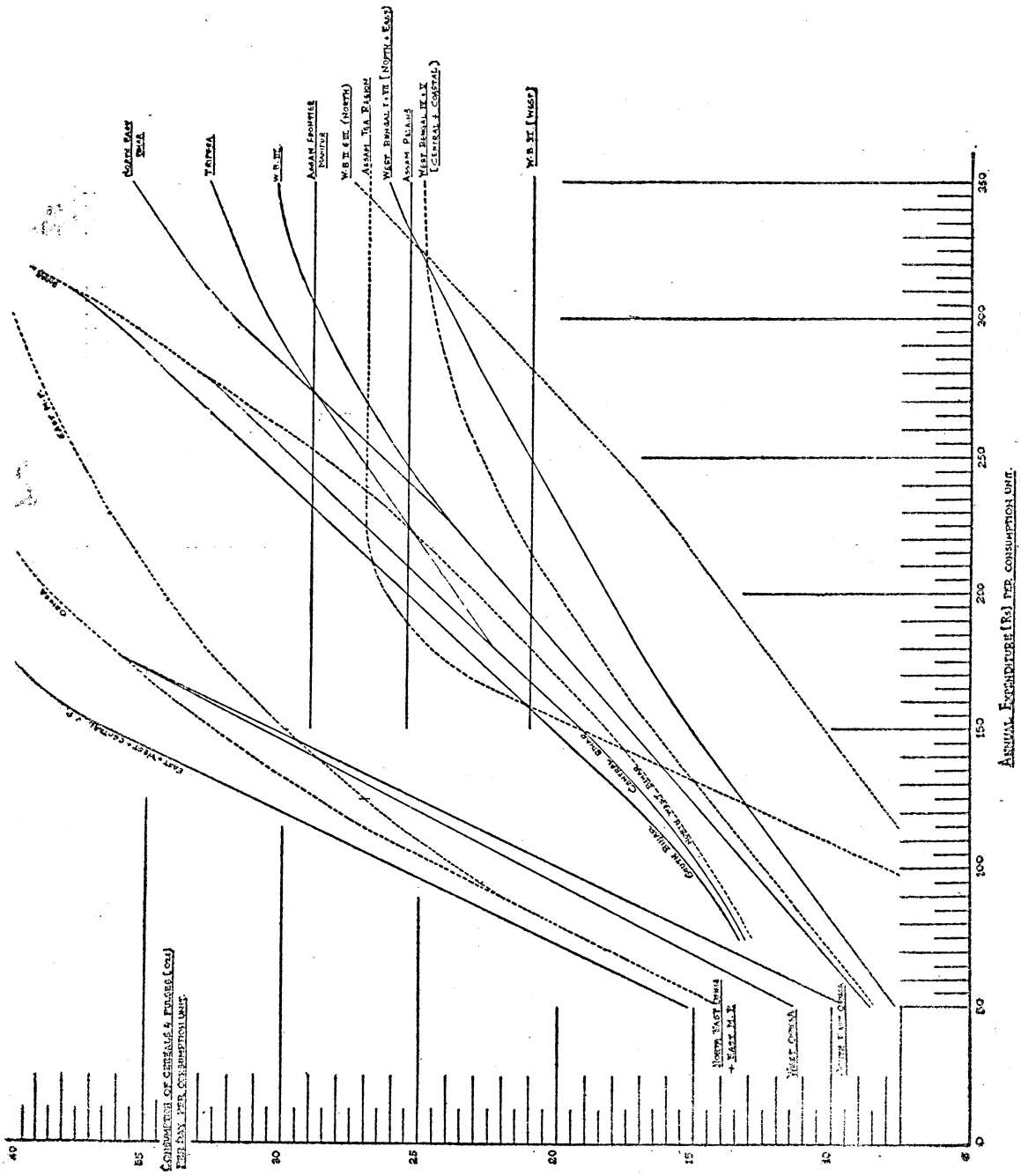
TABLE No. 21—(*contd.*)

Consumption of Cereals and Pulses in oz. per day per consumption unit at different Economic Levels of Living in different regions.
(Agricultural Labour Enquiry, 1950-51)

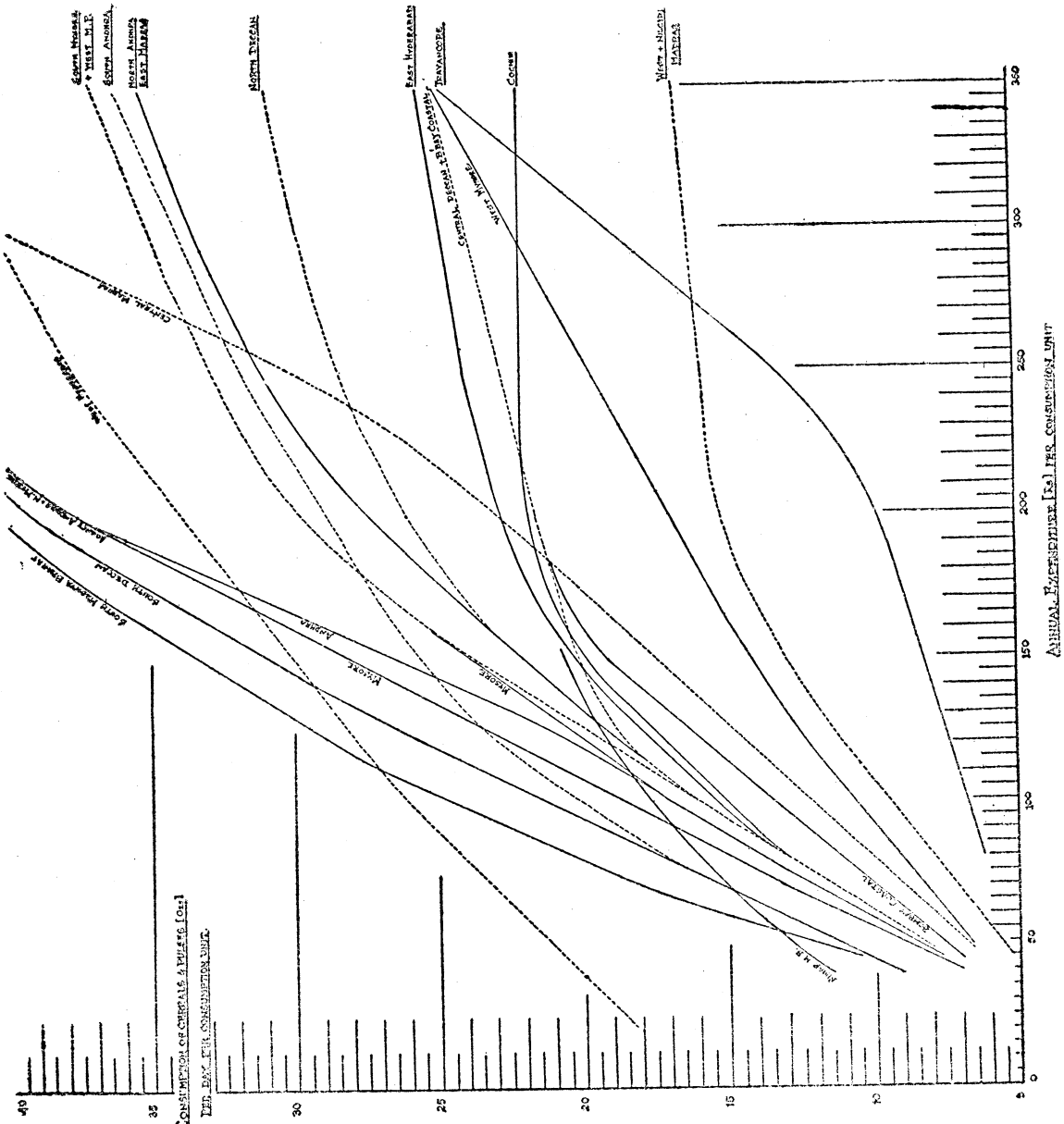
Region	Economic Levels of Living. Rs. 100	101-150	151-200	201-250	251-300	301 & above
Southern India.						
43. South Madhya B.	18.8	26.7	29.9	29.6	54.5	25.2
44. Nimar-Madhya B.	15.2	19.5	20.2	28.9	—	—
45. North Deccan	14.0	19.6	24.7	27.4	29.2	—
46. Central Deccan	11.9	17.3	21.3	—	—	11.5
47. South Deccan	14.6	23.6	45.5	—	—	—
48. Bombay Coastal	10.5	15.9	20.9	22.0	—	49.1
49. West Madhya P.	13.4	18.8	25.7	31.9	16.0	—
50. West Hyderabad	24.5	25.1	31.3	33.8	27.8	—
51. East Hyderabad	14.0	17.3	22.7	21.8	23.6	36.6
52. Agency Andhra	12.0	18.8	32.8	—	—	—
53. North Andhra	12.2	19.5	24.9	28.5	36.1	70.9
54. South Andhra	14.3	24.6	26.3	23.6	39.7	41.2
55. East Madras	12.3	17.3	23.8	29.6	27.1	22.0
56. Central Madras	11.0	14.1	20.9	21.1	33.2	50.5
57. West Madras	8.2	11.2	27.1	14.4	17.3	14.9
58. Nilgiri Madras	7.9	11.5	11.2	18.4	—	—
59. South Mysore	13.3	20.2	24.2	31.7	33.2	33.8
60. West Mysore	9.6	12.8	17.5	18.0	17.7	26.3
61. North Mysore	15.5	20.9	29.9	38.2	—	—
62. Travancore	7.0	6.9	10.1	10.5	11.5	17.8
63. Cochin	12.6	17.0	22.0	23.8	15.8	—



Consumption of cereals and pulses in oz. at different Economic Levels of Living: North and North-West India.



Consumption of cereals and pulses in oz. at different Economic Levels of Living: Eastern India.



Consumption of cereals and pulses in oz. at different Economic Levels of Living: Southern India.

CHAPTER IV

CAUSES UNDERLYING LOW-LIVING.

Reasons for the very low incomes and consequent below subsistence living by a large number of agricultural labour families, as brought out by the Agricultural Labour Enquiry, could be three-fold. First is the lack of productive resources, such as land, or the absence of any non-farm occupation. This is generally true of all agricultural labour families but among them, some of the families do have small pieces of land, either owned or rented, which they themselves cultivate. Such land holdings are, however, generally inadequate either for providing employment or subsistence to the family members so that, while they work their small family farms, they seek employment on other farms or off farms. Nevertheless, it might be thought that the land holdings, however small, which some of the labour families possessed or cultivated, as they secured for the families a certain minimum of employment and income, would make considerable difference to their living standards. This does not seem to be so and in fact there is apparent little difference in the living standards of agricultural labour families with land and without land. In Table No. 22, we show, for each state, percentage distribution of agricultural labour families, with and without land, separately, by Economic Levels of Living.

It will be seen that the distributions of families with and without land are very similar in almost all regions. It is only in Rajasthan, Ajmer, Madhya Bharat and Bhopal, that there is some evidence that larger proportions of families without land, than those of with land, live at lower levels of living. On the other hand, it seems that in Bombay, Saurashtra, Kutch, Mysore, Coorg, Travancore and Cochin, the reverse is true, whatever that may mean. On the whole, however, it is clear that the agricultural labour families with land do not live any better than those without land.

If the possession of small land holdings does not appreciably improve the condition of the agricultural labour families, it only means that the earnings from such small and generally inferior land holdings as the agricultural labour families usually possess, are not appreciably higher than the wages that they, in the absence of such small holdings, would be able to earn for their family labour in their respective regions. Thus, whether or not they possess small land holdings, personal labour of the working members constitutes the chief productive asset of the agricultural

labour families. When therefore this remains inadequately employed either because of unemployment on a number of days during the year or because of the below subsistence wages on which employment has often to be sought, the earnings of these families fail to provide them with even a subsistence living. This is the second of the causes underlying the very low living of certain groups of agricultural labour families.

TABLE No. 22

Per cent distribution of agricultural labour families with and without land by Economic Levels of Living in different states.
(Agricultural Labour Enquiry, 1950-51)

State	Proportion of agricultural labour families with and without land with annual consumer expenditure per consumption unit not more than.					
	With land			Without land		
	Rs. 100	Rs. 150	Rs. 200	Rs. 100	Rs. 150	Rs. 200
Kashmir, Punjab, PEPSU, Himachal, etc.	1.2	19.1	49.7	2.2	17.5	49.5
Rajasthan, Ajmer	3.2	28.1	64.6	6.8	35.8	76.4
Uttar Pradesh	7.1	34.4	63.9	7.6	37.5	63.9
Assam, Manipur, Tripura	9.1	25.0	34.1	1.5	14.1	34.7
West Bengal	2.7	19.7	51.0	3.9	19.5	49.7
Bihar	8.7	42.0	67.9	10.4	39.5	68.8
Orissa	46.3	87.3	96.5	53.0	88.9	93.2
Vindhya Pradesh	41.4	82.8	92.0	35.1	76.4	96.0
Madhya Bharat, Bhopal	22.4	59.9	82.2	45.8	78.8	93.6
Bombay, Saurashtra, Kutch	55.6	87.2	96.0	21.7	55.3	78.4
Madhya Pradesh	41.7	73.3	91.6	31.9	72.1	89.5
Hyderabad	22.9	77.1	90.7	25.2	77.5	93.2
Madras	34.2	75.7	90.9	38.3	75.1	91.8
Mysore, Coorg	18.5	66.5	84.6	30.2	62.2	78.5
Travancore, Cochin	27.6	57.9	82.1	20.1	55.4	77.7

Whether it is unemployment or low wages, it is obvious that the remedy lies in the creation of additional employment. Nevertheless, to the extent that low wages are a cause contributory to the very low incomes of many agricultural labour families, it might be thought that fixation of minimum wages in agriculture might help in raising the incomes of the labour families. It is understood that an appropriate legislation for this purpose is at present under active consideration of the Government. A discussion of the desirability of such a legislation or the possibility of its enforcement with numerous small peasant proprietors does not lie within the perview of the present study. Nevertheless, as we are

immediately concerned with the possibilities of raising the living standards among the agricultural labour families, we should perhaps point out that it seems to us unlikely that the fixation of minimum wages will result in any substantial increase in the total earnings of agricultural labour families. What seems more likely to happen is that, to the extent that such a legislation can be enforced at all, the unemployment which is at present disguised in the form of employment on low wages will become overt so that more or less the same total bill of wages will be paid on fewer days of employment but under more rigorous supervision. A large part of the additional income badly needed by the agricultural labour families must therefore be obtained from additional employment. It is from this standpoint that in the above, we have regarded the present employment of agricultural labour on below subsistence wages as merely a form of inadequate employment.

The amount of additional employment that will be needed to bring the incomes of agricultural labour families to a certain minimum varies greatly between different regions. Therefore in order to bring out these differences in a summary form and also to focus attention on the dimensions of the problem in regions where it is serious, we shall compare the present earnings of the agricultural labour families with certain hypothetical minimum norms.

For this purpose we shall assume that if adequate employment opportunities were provided, it should be possible for the agricultural labour families to earn a minimum of Rs. 350 per annum per earner. This would mean an employment for 350 days of the year on an average wage of Re. 1/- per day; or an employment for 200 days at an average wage of Re. 1/- per day plus an employment for 100 days on an average wage of Rs. 1/8/- per day. It is believed that this will be regarded as a modest employment target to aim at. In Table No. 23, we shall present calculations as to how much worth of additional employment must be created in different regions so as to raise to this minimum, the incomes of those agricultural labour families whose present incomes fall below this minimum. It should be clearly understood that we leave alone those families whose present incomes are already above this minimum, namely, Rs. 350 per annum per earner.

The income data from the Agricultural Labour Enquiry were not readily available in the form we would need for the present and subsequent discussion. We therefore propose to work on the basis of total consumer expenditure and equate it to income. For families with very low living, this assumption should not cause great error. More specifically, the procedure adopted for the purposes of the hypo-

TABLE No. 23

Extent of additional Employment and Relief needed on the hypothesis that each agricultural labour family should have a minimum income of Rs. 350 per earner unit per annum and a minimum consumer expenditure of Rs. 250 per consumption unit per annuh.

Region	Estimated number of Ag. labour families (Lakh)	Total consumer expenditure Rs. (Crore)	Additional employment needed Rs. (Crore)	Col. (3) as percent of Col. (2)	Relief needed Rs. (Crore)	Col. (5) as percent of Col. (2+3)
	1	2	3	4	5	6
North and North-west India.						
1. Jammu & Kashmir	0.19	1.51	—	—	0.39	25.3
2. Punjab & Bilaspur	1.83	13.13	—	—	5.39	41.1
3. Himachal Pradesh	0.27	1.77	0.01	0.6	0.22	12.4
4. PEPSU	0.70	5.80	—	—	1.84	31.7
5. Delhi	0.03	0.23	0.01	4.4	0.06	25.0
6. West Uttar P.	4.73	26.42	0.17	0.6	11.18	42.1
7. North Uttar P.	1.23	5.57	—	—	3.16	56.7
8. Central Uttar P.	3.91	20.54	0.34	1.7	12.06	57.8
9. South Uttar P.	1.54	8.28	0.02	0.2	5.17	62.3
10. East Uttar P.	4.22	28.58	0.17	0.6	15.57	54.2
11. West Vindhya P.	0.48	2.10	0.94	49.2	0.81	26.3
12. North Madhya B.	0.33	2.17	0.35	16.1	1.03	40.9
13. Bhopal	0.70	3.16	1.94	61.4	0.95	18.6
14. North Madhya P.	2.50	10.32	2.46	23.8	4.29	33.6
15. North-West Raj.	1.17	6.58	1.38	21.0	2.67	33.5
16. East Rajasthan	0.48	2.40	0.17	7.1	1.16	45.1
17. South-West Raj.	0.37	2.49	0.29	11.6	0.57	20.5
18. Ajmer	0.07	0.43	0.06	14.0	0.08	16.3
19. Kutch	0.23	1.36	—	—	0.36	26.5
20. Saurashtra	0.99	5.84	1.29	22.08	1.75	24.5
21 Bombay-Gujarat	2.04	11.24	3.19	28.38	3.74	25.9

TABLE No. 23—(*contd.*)

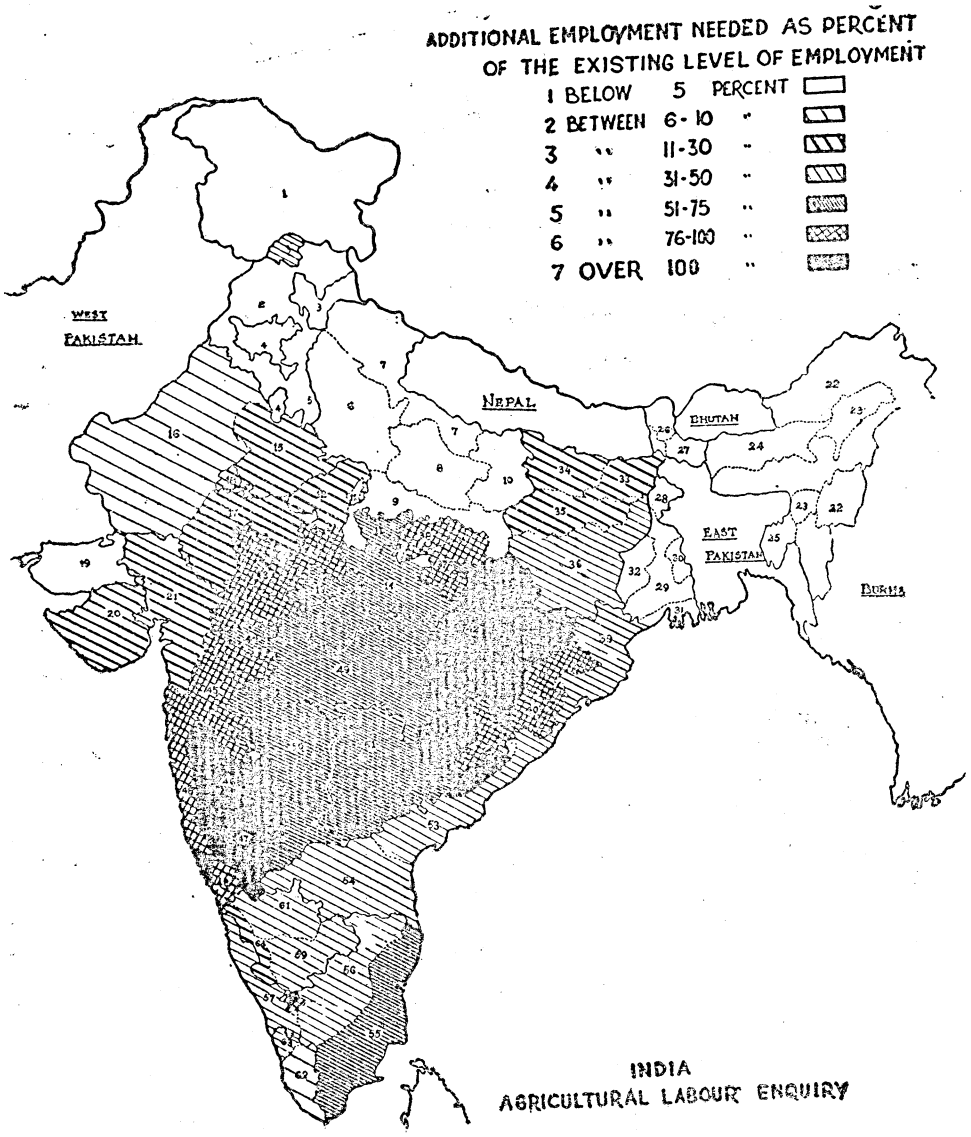
Extent of additional Employment and Relief needed on the hypothesis that each agricultural labour family should have a minimum income of Rs. 300 per earner unit per annum and a minimum consumer expenditure of Rs. 250 per consumption unit per annum.

Region	Estimated number of Ag. labour families (Lakh)	Total consumer expenditure Rs. (Crore)	Additional employment needed Rs. (Crore)	Col. (3) as percent of Col. (2)	Relief needed Rs. (Crore)	Col. (5) as percent of Col. (2+3)
	1	2	3	4	5	6
Eastern India.						
22. Assam Frontier	0.30	1.49	0.02	1.34	0.38	25.2
23. Assam Tea Region	0.98	5.64	0.23	5.85	2.62	44.6
24. Assam Plains	0.50	3.19	—	—	0.34	10.7
25. Tripura	0.21	1.91	—	—	0.16	8.4
26. W. Bengal I (North)	0.31	3.13	—	—	0.40	12.8
27. W. Bengal II-VIII (North)	0.47	4.01	—	—	0.23	5.7
28. W. B. III (North)	1.00	8.55	—	—	1.17	13.7
29. W. B. IV (Central)	3.31	19.20	—	—	6.71	35.0
30. W. B. VII (East)	1.14	6.40	—	—	1.45	22.7
31. W. B. V (Coastal)	0.66	3.68	—	—	2.62	71.2
32. W. B. VI (West)	2.43	14.44	0.49	3.39	7.88	52.8
33. North-East Bihar	3.76	24.22	2.87	11.85	8.28	30.6
34. North-West Bihar	9.91	54.69	10.38	18.97	24.65	37.9
35. Central Bihar	4.32	31.43	5.62	17.88	7.47	20.2
36. South Bihar	8.62	46.18	16.70	36.15	15.93	25.3
37. East Vindhya P.	0.31	1.18	0.90	76.26	0.86	41.4
38. Central Vindhya P.	0.53	1.75	1.67	95.42	1.15	33.6
39. North-East Orissa	5.73	21.00	9.31	44.32	19.69	65.0
40. South-East Orissa	3.73	11.36	11.05	97.27	12.69	56.6
41. West Orissa	2.82	8.36	10.75	128.57	6.21	32.5
42. East Madhya P.	6.48	22.05	23.22	105.31	13.32	29.4

TABLE No. 23—(*contd.*)

Extent of additional Employment and Relief needed on the hypothesis that each agricultural labour family should have a minimum income of Rs. 350 per earner unit per annum and a minimum consumer expenditure of Rs. 250 per consumption unit per annum.

Region	Estimated number of Ag. labour families (Lakh)	Total consumer expenditure Rs. (Crore)	Additional employment needed Rs. (Crore)	Col. (3) as percent of Col. (2)	Relief needed Rs. (Crore)	Col. (5) as percent of Col. (2+3)
	1	2	3	4	5	6
Southern India.						
43. South Madhya B.	2.07	6.85	6.34	92.55	5.04	38.2
44. Nimar-Madhya B.	0.40	1.33	1.45	109.11	0.67	24.1
45. North Deccan	2.50	9.39	7.23	76.93	5.04	30.3
46. Central Deccan	1.47	4.00	5.44	136.00	4.02	42.6
47. South Deccan	2.30	6.38	9.74	152.63	4.39	27.2
48. Bombay Coastal	1.57	4.96	4.33	87.29	2.75	29.6
49. West Madhya P.	5.98	26.22	14.88	56.74	13.77	33.5
50. West Hyderabad	5.81	26.53	16.61	62.60	10.89	25.2
51. East Hyderabad	7.27	33.30	19.88	59.70	18.23	34.3
52. Agency Andhra	0.75	2.03	2.94	144.83	1.08	21.7
53. North Andhra	13.19	48.71	23.80	48.86	27.60	38.1
54. South Andhra	4.46	19.53	8.63	44.19	19.14	68.0
55. East Madras	13.45	49.66	29.12	58.64	34.21	43.4
56. Central Madras	15.15	56.83	22.35	39.33	55.35	69.9
57. West Madras	3.96	16.28	7.26	44.59	11.46	48.7
58. Nilgiri-Madras	0.19	0.85	0.59	69.41	0.40	27.8
59. South Mysore	0.63	2.79	1.17	41.93	1.61	40.7
60. West Mysore	1.12	6.07	0.93	15.32	2.30	32.9
61. North Mysore	3.71	13.94	5.14	36.86	14.59	76.5
62. Travancore	3.45	19.80	1.49	7.52	12.53	35.3
63. Cochin	1.71	8.09	3.03	37.45	5.87	52.8
Total	176.67	817.32	298.35	36.50	457.60	41.02


ADDITIONAL EMPLOYMENT NEEDED AS PERCENT
OF THE EXISTING LEVEL OF EMPLOYMENT
1 BELOW 5 PERCENT
2 BETWEEN 6-10 "
3 " 11-30 "
4 " 31-50 "
5 " 51-75 "
6 " 76-100 "
7 OVER 100 "
WEST PAKISTAN
NEPAL
BHUTAN
EAST PAKISTAN
BURMA
INDIA
AGRICULTURAL LABOUR ENQUIRY

thetical calculations presented below is as under : As earlier mentioned, the Agricultural Labour Enquiry gives a classification of the families by what has been described as 'Economic Levels of Living' determined by the consumer expenditure of the family per consumption unit. In groups of families, thus classified, where the consumer expenditure does not amount to a minimum of Rs. 350/- per annum *per earner*, we shall suppose that a primary cause of the low living in these groups, is the inadequate earnings of the earners. The calculations presented below show how much worth of additional employment must be created in order to raise the consumer expenditure in these groups to a minimum of Rs. 350 per annum *per earner*, on the assumption that the entire additional earnings accruing to the earners of families in these groups will result in a net addition to their consumer expenditure. It should be mentioned that the calculations also assume that the advantages of the new employment opportunities will go entirely to these groups of families; actually this might not happen and a part of the new employment while it will help to raise the earnings of some of the families above the specified minimum, will fail to bring the earnings of others upto that minimum.

The earner strength of the agricultural labour families is their working male and female members and in some cases also their children. While specifying the minimum earnings of Rs. 350 per annum per earner, we should make some allowance for the fact that women and children usually earn somewhat lower wages than do the men. This might be done by converting the number of earners in a family to what, on the analogy of consumption units, we might call the earner units. Thus, taking an adult male earner to be one earner unit, we might count the women and children earners as fractions in proportion to the relative average wages they earn in the respective States. The following calculations are based on the assumption that every family should have minimum earnings of Rs. 350 per annum per *earner unit* thus defined.

It should be noted that while converting the number of earners to earner units we have tried to take account of the inferior status of women and children as earners only in so far as they earn, on an average, lower wages than do the men earners. Actually, the women and children workers in a family are inferior earners for yet another reason; the women and children even when they work and earn might not be always available for employment. While converting the number of earners in a family to earner units, we have taken no account of this possibility. In any case, under conditions where presumably even the men workers do not find sufficient employment,

it remains a mute point whether women and children will be available for a fuller employment if one is available.

The children workers are inferior earners in yet another sense in so far as it might be regarded as socially undesirable that they should be required to earn. Their exclusion from the following calculations will, however, presume an appropriate agricultural labour legislation and its effective enforcement. Hence even though it would be quite appropriate to exclude altogether the children workers, in the following, for purposes of simplicity, we shall work on the basis of the reported earners, men, women, and children.

In the first column of Table No. 23, is shown the estimated number of agricultural labour families in each region. In the second column is shown their estimated total consumer expenditure, and this is regarded as approximately equivalent to their present income. It will be seen that the estimated number of total agricultural labour families in the Indian Union is 176.67 lakh and that their total consumer expenditure or income is nearly Rs. 817.32 crore. In the third column is shown the amount of additional employment, in terms of its total wage bill, that it will be necessary to create in each region in order that every family should have a minimum earning of Rs. 350 per annum per earner unit. It will be seen that the total of additional employment that will need to be created in the Indian Union, with the above object in view, amounts to worth Rs. 298.35 crore annually. This means that the present total income of agricultural labour families, which is about Rs. 817.32 crore, will have to be raised by Rs. 298.35 crore, that is by 36.5 per cent over its present level. This might be regarded as a measure of underemployment of the agricultural labour families.

For purposes of comparing various regions in this respect, in the fourth column of the table, we have expressed the additional employment necessary in each region as a percentage of the present total labour income in that region. It will be seen that the extent of underemployment, thus measured, varies greatly in different regions. In the North and North-West India, the additional employment necessary is indeed small except in North-West Rajasthan, Saurashtra, Bombay Gujarat and North Madhya Pradesh where the labour income will have to be raised by about 20 to 30 per cent over its present level and in West Vindhya Pradesh and Bhopal, where it needs raising up by about 56 to 60 per cent. In the Eastern India, the problem is again negligible in Assam and West Bengal. In Bihar, particularly in South Bihar, however, the income will need raising by nearly 20 per cent over the present level. In South and Central Vindhya Pradesh, in Orissa and in East Madhya Pradesh, the pro-

blem assumes serious dimensions; in these regions the income of agricultural labour families need raising up by anything from 75 to 125 per cent.

In the South and the South-West India, particularly the latter, the problem appears equally acute. Thus, in South Madhya Bharat and in the Bombay Deccan, the income needs raising by anything between 75 to 150 per cent. It is equally acute in the Agency tract of Andhra, adjoining South Orissa. In West Madhya Pradesh and in Hyderabad, the income needs raising by about 60 per cent. In most regions of Andhra and Madras, this proportion is between 40 and 60 per cent. The problem is not so serious only in Travancore and West Mysore.

We may now examine the third of the causes underlying low-living. Supposing, as we have done in the above, that the new employment ensures a minimum of Rs. 350 to each earner unit, it will result in a considerable improvement in the living standards of those families who at present suffer from want of adequate employment and earnings to their earner strength. There are however other families for whom the primary cause of poverty is more fundamental, namely, lack of adequate earner strength in relation to their consumption units. Besides providing adequate earnings to their earning strength, these families will therefore need a certain amount of relief in the form of various social services if their living standards are to be brought to a certain minimum. We shall return to a consideration of suitable forms of relief in a later chapter. Here we shall again present some hypothetical calculations to focus attention on the dimension of the relief measures necessary. In the following we shall assume that a consumer expenditure of Rs. 250 per annum *per consumption unit* is necessary to provide a desirable minimum level of living. We shall also assume that the earner strength of all the families is adequately employed and that all families earn a minimum of Rs. 350 per annum *per earner unit*. In the fifth column of Table No. 23, we then show the amount of relief necessary to provide each family with a minimum consumer expenditure of Rs. 250 per consumption unit per annum. It will be seen that on this basis the relief needed by the agricultural labour families amounts to Rs. 457.60 crore annually.

The present consumer expenditure of the agricultural labour families amounts to Rs. 817.32 crore; if we add to this the income Rs. 298.35 crore from the additional employment to be created, the consumer expenditure will amount to Rs. 1115.67 crore. The relief amounting to Rs. 457.60 crore as suggested above, means raising this consumer expenditure by a further 41 per cent.

In the last column of the Table, we have similarly related the amount of relief needed in each region, to the estimated consumer expenditure of the families on the basis that all of them earn a minimum of Rs. 350 per annum per earner unit. It will be seen that the extent of relief needed in different regions does not show the same amount of variation as the extent of additional employment needed. In certain regions, such as Assam Plains, Tripura and Northern regions of West Bengal, where we earlier noted that no additional employment was necessary to bring the earnings to the hypothetical minimum, the amount of relief necessary to allow the hypothetical minimum of consumer expenditure is also rather small. But in most other regions, including those in the North and North-west India, considerable relief is needed. In most regions the consumer expenditure after attaining the minimum levels of earnings through creation of additional employment, will need further raising by 30 to 50 per cent through provision of relief.

Though the above mentioned hypothetical aims of a minimum earning of Rs. 350 per annum per earner unit and a minimum consumer expenditure of Rs. 250 per annum per consumption unit might be regarded socially the most desirable, the dimensions of the problems of additional employment and relief that they raise, might be thought so large as to make it impossible to regard them as immediately attainable goals. We shall, therefore, work out the implications of an alternative set of hypothetical aims considerably below the above ones. In Table No. 24, we shall present the dimensions of additional employment necessary to provide a minimum earning of Rs. 300 per annum per earner unit; and having achieved this, the necessary amount of relief to certain families in order to provide them with a minimum of consumer expenditure of Rs. 200 per annum per consumption unit.

It will be seen that on the basis of these considerably lower alternatives, the amount of additional employment necessary is only Rs. 169.95 crore annually. This is only half of what it came to on the basis of the earlier hypothesis. On the other hand, the relief needed to assure a minimum consumer expenditure of Rs. 200 per annum per consumption unit amounts to Rs. 293.65 crore annually. The relative positions of the different regions in both the respects, of course, remain more or less the same.

TABLE No. 24

Extent of additional Employment and Relief needed on the hypothesis that each agricultural labour family should have a minimum income of Rs. 300 per earner unit per annum and a minimum consumer Expenditure of Rs. 200 per consumption unit per annum.

	Region	Estimated number of Ag. labour families (Lakh)	Total consumer expenditure Rs. (Crore)	Additional employment needed Rs. (Crore)	Col. (3) as percent of Col. (2)	Relief needed Rs. (Crore)	Col. (5) as percent of Col. (2+3)
		1	2	3	4	5	6
North and North-West India.							
1.	Jammu & Kashmir	0.19	1.51	—	—	0.14	9.3
2.	Punjab & Bilaspur	1.83	13.13	—	—	2.50	19.0
3.	Himachal Pradesh	0.27	1.77	—	—	0.06	3.4
4.	PEPSU	0.70	5.80	—	—	0.80	13.8
5.	Delhi	0.03	0.23	0.01	4.35	0.03	12.5
6.	West Uttar P.	4.73	26.42	—	—	5.68	21.5
7.	North Uttar P.	1.23	5.57	—	—	1.70	30.5
8.	Central Uttar P.	3.91	20.54	0.02	0.10	6.52	31.7
9.	South Uttar P.	1.54	8.28	—	—	2.89	34.9
10.	East Uttar P.	4.22	28.58	0.03	0.10	8.69	30.4
11.	West Vindhya P.	0.48	2.10	0.53	25.23	0.07	2.7
12.	North Madhya B.	0.33	2.17	0.20	9.21	0.56	23.6
13.	Bhopal	0.70	3.16	1.28	40.51	0.55	12.4
14.	North Madhya P.	2.50	10.32	0.49	4.75	2.65	24.5
15.	North-West Raj.	1.17	6.58	0.37	5.62	1.78	25.6
16.	East Rajasthan	0.48	2.40	0.01	0.42	0.64	26.6
17.	South-West Raj.	0.37	2.49	0.15	6.02	0.14	5.3
18.	Ajmer	0.07	0.43	0.02	4.65	0.03	6.7
19.	Kutch	0.23	1.36	—	—	0.12	8.8
20.	Saurashtra	0.99	5.84	0.44	7.53	1.08	17.2
21.	Bombay Gujarat	2.04	11.24	1.42	12.63	2.32	18.3

TABLE No. 24—(*contd.*)

Extent of additional Employment and Relief needed on the hypothesis that each agricultural labour family should have a minimum income of Rs. 300 *per earner unit per annum and a minimum consumer Expenditure of Rs.* 200 *per consumption unit per annum.*

	Region	Estimated number of Ag. labour families (Lakh)	Total consumer expenditure Rs. (Crore)	Additional employment needed Rs. (Crore)	Col. (3) as percent of Col. (2)	Relief needed Rs. (Crore)	Col. (5) as percent of Col. (2 + 3)
		1	2	3	4	5	6
Eastern India.							
22.	Assam Frontier	0.30	1.49	—	—	0.18	12.1
23.	Assam Tea Region	0.98	5.64	0.04	0.71	1.28	22.5
24.	Assam Plains	0.50	3.19	—	—	0.09	2.8
25.	Tripura	0.21	1.91	—	—	0.05	2.6
26.	W. Bengal I (North)	0.31	3.13	—	—	0.12	3.8
27.	W. B. II-VIII (North)	0.47	4.01	—	—	0.06	1.5
28.	W. B. III (North)	1.00	8.55	—	—	0.44	5.2
29.	W. B. IV (Central)	3.31	19.20	—	—	2.89	15.1
30.	W. B. VII (East)	1.14	6.40	—	—	0.73	11.4
31.	W. B. V (Coastal)	0.66	3.68	—	—	1.11	30.2
32.	W. B. VI (West)	2.43	14.44	0.16	1.12	3.84	26.3
33.	North-East Bihar	3.76	24.22	0.98	4.05	4.39	17.4
34.	North-West Bihar	9.91	54.69	3.47	6.34	16.24	27.9
35.	Central Bihar	4.32	31.43	1.39	4.42	5.13	15.6
36.	South Bihar	8.62	46.18	9.63	20.85	9.42	16.9
37.	East Vindhya P.	0.31	1.18	0.62	52.54	0.58	32.2
38.	Central Vindhya P.	0.53	1.75	1.32	75.43	0.07	2.28
39.	North-East Orissa	5.73	21.00	5.15	24.52	14.06	53.8
40.	South-East Orissa	3.73	11.36	6.08	53.52	10.09	57.9
41.	West Orissa	2.82	8.36	7.37	88.16	4.31	27.4
42.	East Madhya P.	6.48	22.05	16.77	76.05	8.78	22.6

TABLE No. 24—(*contd.*)

Extent of additional Employment and Relief needed on the hypothesis that each agricultural labour family should have a minimum income of Rs. 300 *per earner unit per annum and a minimum consumer Expenditure of Rs.* 200 *per consumption unit per annum.*

Region	Estimated number of Ag. labour families (Lakh)	Total consumer expenditure Rs. (Crore)	Additional employment needed Rs. (Crore)	Col. (3) as percent of Col. (2)	Relief needed Rs. (Crore)	Col. (5) as percent of Col. (2+3)
	1	2	3	4	5	6
Southern India.						
43. South Madhya B.	2.07	6.85	4.33	63.21	3.34	29.9
44. Nimar-Madhya B.	0.40	1.33	1.06	79.70	0.38	15.9
45. North Deccan	2.50	9.39	4.85	51.65	3.12	21.9
46. Central Deccan	1.47	4.00	4.09	102.25	2.68	33.1
47. South Deccan	2.30	6.38	7.44	116.61	2.96	21.4
48. Bombay Coastal	1.57	4.96	3.04	61.29	1.75	21.9
49. West Madhya P.	5.98	26.22	9.03	34.44	8.40	23.3
50. West Hyderabad	5.81	26.53	10.81	40.75	6.51	17.4
51. East Hyderabad	7.27	33.30	12.43	37.33	11.78	25.8
52. Agency Andhra	0.75	2.03	2.16	106.40	0.64	15.3
53. North Andhra	13.19	48.71	13.99	28.72	18.29	29.2
54. South Andhra	4.46	19.53	4.63	23.71	13.89	57.5
55. East Madras	13.45	49.66	12.81	25.80	23.78	38.1
56. Central Madras	15.15	56.83	11.63	20.46	40.34	58.9
57. West Madras	3.96	16.28	3.97	24.39	7.90	39.0
58. Nilgiri-Madras	0.19	0.85	0.25	29.41	0.16	14.5
59. South Mysore	0.63	2.79	0.64	22.94	1.10	32.1
60. West Mysore	1.12	6.07	0.46	7.58	1.30	19.9
61. North Mysore	3.71	13.94	2.42	17.36	10.65	65.1
62. Travancore	3.45	19.80	0.39	1.97	7.86	38.9
63. Cochin	1.71	8.09	1.57	19.41	4.01	41.5
Grand Total	176.67	817.32	169.95	20.79	293.65	29.74

CHAPTER V

EMPLOYMENT POTENTIAL OF DEVELOPMENT SCHEMES

The ultimate solution to the problem of providing adequate employment to the vast number of underemployed agricultural labour families must obviously be found only in a rapid industrialisation which will draw permanently a large number of these families off agriculture. Neverthless, the process of industrialisation, however rapid, is bound to take some time before its effect is felt on the country-side. In the meanwhile, the solution to the problem must be found in the employment opportunities, temporary though, provided by various development projects and schemes.

Of the many schemes included in the First Five Year Plan, there are only some that afford substantial employment to skilled or unskilled labour and it is only in the case of such schemes that a substantial part of the total expenditure goes to labour in the form of wages. They are mainly the schemes of land improvement and of minor irrigation included under the head Agriculture; schemes of new forest plantations and of improving forest communications; medium and major schemes of irrigation and of hydro-electric power and, of course, the multipurpose projects; and finally, the schemes of road construction, of water-supply included under Public Health and the schemes of housing. At present there are no regular statistical returns on the employment of labour on various projects so that there are not available any comprehensive data on employment potential of different schemes. The Labour and Employment Division of the Planning Commission, Government of India, has however recently made a few valuable case studies regarding employment potential of a number of selected projects. The following irrigation and power projects were selected for the purpose of these studies.

(1) Kakrapara Weir and Canal Project;
(2) Tungabhadra Project;
(3) Hirakud Project;
(4) Gangapur Storage Dam Project;
(5) Ghataprabha Left Bank Canal Project;
(6) Malampuzha Dam Project; and
(7) Manimuthar Project.

In the following we add short descriptive notes on these projects.

Kakrapara Project:—The project forms a part of a more comprehensive scheme for the development of the Tapti Valley in Bombay State. The weir is a masonry gravity structure 2300 ft. long. Two main canals of 40 and 60 miles length take off from the right and the left banks respectively and are further served by about 658 miles of distributories and minors. It is expected to irrigate about 652,000 acres. The total cost of the project is Rs. 6.26 crore. The work was started in November 1949 and is now complete.

More than half the labour employed on the project was imported from Khandesh and North Gujarat. Skilled labour like masons, stone-cutters, etc. came from the South. The earth-work on the main canals was mostly done by employing heavy machinery.

Tungabhadra Project:—This is an irrigation cum power project and involves the construction of a dam across the river Tungabhadra on the border of Madras and Hyderabad States, running of two canals one on either flank and generation of hydro-electric power both at the head works and at falls in the canals. The dam consists of three parts, main dam in masonry across the river 5,942 ft. long, a low earth dam 450 ft. long to close a small opening in the hill adjoining the main dam on the left side and a composite dam 1550 ft. long with masonry wall in front and earth backing in rear on the extreme left flank. The total estimated cost of the project is nearly Rs. 42.75 crore.

Both skilled and unskilled labour is recruited by the Special Deputy Collector for the execution of the Project as and when it is required by the Public Works Department. Labour is also recruited through commission agents. With the provision of free hutments on the project site, of street lighting and of protected drinking water supply, the supply of labour has been quite adequate. The total labour on work has often been more than 20,000.

Hirakud Project:—This is the first in the series of dams to be constructed for the integrated development of the Mahanadi Valley in Orissa State. The present project has been drawn up in two stages with a total estimated cost of about Rs. 100 crore. The present estimated cost of the first stage is Rs. 70.78 crore and involves the construction of a main dam (a masonry and concrete and earth fill-barrier 15,748 ft. in length) flanked by dykes (right flank 6.7 miles and left flank 6.3 miles in length). The reservoir formed will have a gross storage capacity of 6.6 m.a. ft. and the irrigation canal system will provide irrigation facilities for 4.48 lakh acres in Sambalpur and Bolangir-Patna districts. The total length of the main canal and branches will be 93 miles and that of the distri-

butories and minors 412 miles. The power unit includes the erection of two 24,000 kw. generating sets and two 37,500 kw. generating sets.

A large part of the labour is drawn locally and in part from Madhya Pradesh. Earth workers are mainly drawn from Madhya Pradesh and South Orissa; skilled quarrymen, stone dressers and masons are from Andhra, Mysore and Travancore Cochin; and technicians and machine-operators are recruited from Punjab and also in part from Bihar and Eastern Uttar Pradesh.

Gangapur Storage Dam Project:—The project provides for the construction of an all earth dam across the river Godavari at Savargaon, 8 miles from Nasik in Bombay State. The dam 12,500 ft. long with a maximum height of 120 ft. will hold 5,500 m.c. ft. of water. It also involves the construction of 24 miles of new canals and the remodelling of 50 miles of existing canals. The revised estimate of the Dam (head-works) is Rs. 2.5 crore and the estimated expenditure on canal works is Rs. 0.99 crore. Actual work on the dam was taken up in 1949 and has been recently completed. The work on the canal is in progress.

It was originally intended to execute the earthwork mainly by manual labour. However, when the work was started, it was found that the labour was not available in sufficient numbers at economic rates. A large part of the work was, therefore, done by employing heavy machinery and equipment.

Ghataprabha Left Bank Canal Project:—The project, construction of Ghataprabha Left Bank Canal of 44 miles, is the first stage of a larger project for the development of the Ghataprabha Valley in Bombay and is estimated to cost about Rs. 5.5 crore. Since the work involved is mostly canal construction, the labour component of the total cost is fairly large, particularly because the use of machinery has been kept to a minimum. Labour for the project, particularly of the unskilled type, is mostly local and the work is at present being given out in bits to small contractors who in their turn pay the wages by piece rate. At one time there were 300 such small contractors engaging on an average 30 workers each. The system has been working very satisfactorily and in order to encourage such contractors, the usual formalities of a contract have been considerably simplified. Further, to provide additional incentives, the project authorities have undertaken to supply tools for workers and the necessary hutment material. Weekly payments are made to the contractors. There are also a few labour co-operatives working very satisfactorily.

Malampuzha Dam Project :—The project costing Rs. 4.44 crore, provides for the construction of a dam across the Malampuzha river in Palghat Taluka of Malabar district. The project also calls for the construction of a net work of canals which will irrigate an area of 40,000 acres besides making possible a third crop on an additional 30,000 acres. The composite dam, with a total length of 6066 ft. comprises a masonry section 5337 ft. in length and an earthen section 729 ft. in length. The full reservoir capacity is estimated to be 8000 m.c. ft. The total length of the main canal is 19.6 miles and there are 30 distributories with a total length of 110 miles.

Though the preliminaries for the project were started in 1949, the construction work was taken up only in 1950. The target date for the completion of the project is June 1955. The construction work on the dam is practically complete and 85 per cent of the work on the canals was expected to be completed by the end of March 1955.

The works are executed under the job work system. There is a sufficient supply of labour and the use of machinery has been kept to a minimum.

Manimuthar Project :—The project estimated to cost Rs. 5.2 crore provides for the construction of a dam across the Manimuthar river in Tinnevelly district of Madras State and the digging of a new canal in the same district. The scheme, in effect, consists of a masonary dam 1230 ft. long across the river, an earth dam 10130 ft. long covering the faces of 7 hillocks lying along the dam line and a 28 miles long canal and its distributories.

Though the project was inaugurated in November 1950, actual construction work was taken up only in the latter half of 1951. About half of the work on the dam is now complete and the work on the canals has been started. The target date for the completion of the project is March 1957.

The labour force on the project might be broadly classified as 40 per cent imported and 60 per cent drawn from the neighbourhood. The imported labour generally consists of heavy manual labour from Malabar, ordinary labour from Coimbatore and Salem districts and skilled workers from Madurai and Ramnad districts. Though in the earlier stages of construction, special efforts had to be made to induce labour to the project site, availability of labour is now regarded as satisfactory.

In order to arrive at an estimate of the labour potential of each project, its detailed itemised estimates of quantities and costs were examined and items with significant labour component were

isolated. In consultation with the project engineers, the per unit rates for these items were then broken up so as to show their labour components for skilled and unskilled labour separately. On the basis of these component rates and the known quantities of the items concerned, the shares of labour costs in the total costs of these items were worked out.

Of the seven studies mentioned above, the two relating to the employment on Kakrapara and Tungabhadra projects were the earliest to be undertaken by the Division of Labour and Employment and were, therefore, in the nature of pilot studies. Their results are, therefore, naturally not in a form which could be readily presented along with the results of the other five studies. Nevertheless, we shall give below the estimates of employment on Kakrapara project in a summary form. In Table No. 25, we give the total cost of the project distributed over the main heads and the share of labour cost in each item. In the last column, the labour cost has been converted into man-days on the basis of appropriate wage rates.

TABLE No. 25

Estimates of employment on Kakrapara Project.

	Total cost Rs. (Lakh)	Labour cost Rs. (Lakh)	Labour as per cent to total cost	Employment man-days (Lakh)
Weir				
Items studied	56.00	30.67	58.8	14.5
Other items	7.00	3.83	54.8	1.8
Total weir	63.00	34.50	54.8	16.3
Canals				
Main canals	286.00	89.50	31.3	38.3
Distributories	92.00	92.00	100.0	42.0
Other items	119.00	57.14	48.0	25.3
Land, equipment	129.00	—	—	—
Total canals	626.00	238.64	38.1	105.6
Total Project	689.00	273.14	39.6	121.9

It will be seen that for "Other items" which were not studied, we have assumed the same share of labour as was found in the items studied. On this basis, the share of labour on the weir is seen to be about 55 per cent and on the canals about 38 per cent. The low share of labour on canal works is of course on account of the use of machinery earlier mentioned. For the whole project, the share of labour works out at about 40 per cent.

We shall now present the estimates of employment for the remaining five projects on a uniform basis. In Table No. 26 are shown the total costs and the labour costs divided into cost of skilled and unskilled labour for each one of the principle items of the five projects.

In order to estimate the labour employment potential in terms of man-days, the labour costs are converted into man-days at appropriate wage rates for the unskilled and for the different types of skilled labour. These estimates are shown in Table No. 27. In the first column of this Table, the labour cost of each item has been shown as a percentage of its total cost. It will be seen that even among the chosen items, this proportion varies from 25 per cent to 80 per cent. In earthworks, particularly on canals, the proportion is naturally very high and lies between 70 to as much as 90 per cent. Gangapur Left Bank Canal is the only exception on account of the considerable use of heavy machinery made on that project. The share of the labour cost on construction of dams varies according to the type of the dam. On the concrete dam at Hirakud, this share is about 30 per cent. On Masonry dams at Malampuzha and Manimuthar, it is nearly 50 per cent. On earth dams, the share varies greatly, presumably depending upon the extent of the use of heavy machinery. For instance on the earth dam at Gangapur, the share of the labour cost is only 17.5 per cent and this low proportion is known to be on account of the use of heavy machinery made on that project. At Hirakud, this share is 25 per cent of the total and considering the size of that project, considerable use of heavy machinery seems inevitable. On the other hand, on the earth dam at Manimuthar, where the use of machinery was kept to a minimum, this share is as high as 63 per cent. The earth dam at Malampuzha is relatively small and reportedly here too the use of machinery was kept to a minimum. The rather low share of the labour cost, which is only 28 per cent, therefore, appears to be discrepant. To sum up, when the major part of the work is done manually, the share of the labour costs broadly appear to be as under : Concrete dam : 30 per cent; Masonry dam : 50 per cent; Earth dam : 60 per cent; Canals etc. : 80 per cent.

Considering all the items with significant labour component listed under each project, it will be seen that the proportion of the labour cost to the total cost is about 60 per cent in the case of Ghataprabha, Malampuzha and Manimuthar projects. It is only about 32 per cent for the Gangapur project and about 37 per cent for the Hirakud project, excepting its Power Unit. For the Power Unit of the Hirakud project, the labour cost is naturally low and forms only 12.5 per cent of the total.

TABLE No. 26

Estimates of labour component in various items of irrigation projects.

Item	Total cost Rs. (Lakh)	Cost of labour—Rs. (Lakh) Skilled	Unskilled	Total
Hirakud Project (except Power)				
Main earth dam	647.00	67.26	94.42	161.68
Main concrete dam	780.00	104.39	125.07	229.46
Dykes	295.00	32.27	47.61	79.88
Canals	660.70	99.40	314.12	413.52
Buildings and roads	119.00	30.78	21.22	52.00
Total (except power)	2501.70	334.10	602.44	936.54
Hirakud Power Unit	1627.00	101.60	101.96	203.56
Gangapur Project				
Earth Dam	143.24	12.81	12.25	25.06
Left Bank Canal	51.67	12.21	13.08	25.29
Remodelling existing canals	23.04	4.66	14.21	18.87
Total	217.95	29.68	39.54	69.22
Ghataprabha Project				
Masonry	113.29	12.96	31.29	44.25
Earthwork	235.52	21.33	165.41	186.74
Buildings	13.50	2.18	3.00	5.18
Total	362.31	36.47	199.70	236.17
Malampuzha Project				
Masonry Dam	90.08	1.90	41.68	43.58
Earth Dam	6.07	0.17	1.54	1.71
Canals, etc.	103.68	4.51	67.90	72.41
Buildings and roads	19.50	5.42	3.73	9.15
Total	219.33	12.00	114.85	126.85
Manimuthar Project				
Masonry Dam	141.98	6.31	60.47	66.78
Earth Dam	159.52	28.26	72.24	100.50
Canals etc.	62.00	14.20	40.30	54.50
Buildings	19.00	5.13	3.42	8.55
Total	382.50	53.90	176.43	230.33

TABLE No. 27

Estimates of labour employment in various items of irrigation projects.

Item	Labour cost as percentage of total cost	Labour employment-man-days (Lakh)		
		Skilled	Unskilled	Total
Hirakud Project (except Power)				
Main earth Dam	25.0	13.88	53.11	66.99
Main concrete Dam	29.4	26.91	73.58	100.49
Dykes	27.1	6.65	24.38	31.03
Canals etc.	62.6	19.84	211.44	231.28
Buildings and roads	43.7	8.23	16.77	25.00
Total (except Power)	37.4	75.50	379.28	454.79
Hirakud Power Unit	12.5	26.06	69.19	95.25
Gangapur Project				
Earth Dam	17.5	3.42	6.12	9.54
Left Bank Canal	48.9	2.79	9.38	12.17
Remodelling of existing canals	81.9	1.62	9.37	10.99
Total	31.8	7.83	24.87	32.70
Ghataprabha Project				
Masonry	39.1	3.53	20.86	24.39
Earthwork	79.3	5.33	110.27	115.60
Buildings	38.4	0.61	2.00	2.61
Total	65.2	9.47	133.13	142.60
Malampuzha Project				
Masonry Dam	48.4	0.69	27.89	28.58
Earth Dam	28.2	0.06	1.25	1.31
Canals etc.	69.8	1.71	66.27	67.98
Buildings and roads	46.9	2.01	4.09	6.10
Total	57.8	4.47	99.50	103.97
Manimuthar Project				
Masonry Dam	47.0	3.07	41.28	44.35
Earth Dam	63.0	9.86	59.19	69.05
Canals etc.	87.9	5.68	40.30	45.98
Buildings	45.0	2.05	3.42	5.47
Total	60.2	20.66	144.19	164.85

It should be noted that the items listed above under each project, are only those which have significant labour component and that besides these, the projects involve considerable other costs. Even from among the items with significant labour component, a few have escaped from the above listing. The proportions of the labour costs, quoted above, should not therefore be misunderstood as relating to the entire costs of the respective projects. In order to estimate the share of the labour in the entire costs of the projects, we should therefore take account of these remaining items. We shall adopt the following procedure. For items which are known to have a significant labour component but which could not be included in the above statement, we shall assume that, for each project, the share of labour in them is about the same as its share in the total costs of all the items listed in the above statement. We shall divide the remaining items into broadly two parts : (a) Land and equipment including depreciation on equipment if any charged to the project; and (b) other miscellaneous items such as establishment, maintenance, plantations, etc. Unless, as in the case of Ghataprabha Project where the labour component of all the items have been studied, we shall assume that the part (a) of the residual itms have no labour component and that for the part (b), the share of the labour is 25 per cent of the total. This last figure is only an ad hoc guess. In Table No. 28, we shall work out the labour cost of each of the above projects. Finally in order to obtain estimates of employment potential, in terms of man-days, we shall convert the labour costs into man-days on the basis of average wage rates worked out from the items studied.

It will be seen that on major irrigation works such as at Malampuzha and Manimuthar, the labour costs form from 40 to 50 per cent of the entire costs of the projects. With the use of machinery on considerable scale, such as at Gangapur, the share of labour might be reduced to half this size and might form no more than 20 to 25 per cent of the total. On purely canal projects, such as in the case of Ghataprabha Left Bank Canal Project, particularly when the use of machinery was kept to a minimum, the share of labour would be very high and could form nearly 60 per cent of the total cost. On very large irrigation projects, such as at Hirakud, the share of labour is apparently rather small, presumably on account of considerable use of heavy machinery unavoidable on large works. The share of labour at Hirakud seems to form no more than 17 per cent of the total cost. Here, however, the cost of items studied form less than half of the total cost and sufficient information is not available in the studies to further classify the residual items. We have, therefore, presumed that they contain little or no labour component. With

TABLE No. 28

Estimates of labour component and employment potential in irrigation projects.

Project	Total cost Rs. (Lakh)	Labour cost Rs. (Lakh)	Labour as percent to total	Employment man-days (Lakh)
Hirakud Project (except Power)				
Items studied	2501.70	936.54	37.4	454.79
Other items	2949.30	—	—	—
Total	5451.00	936.54	17.2	454.79
Hirakud Power Unit Total	1627.00	203.56	12.5	95.25
Gangapur Project				
Items studied	217.95	69.22	31.8	32.70
Other items with significant labour component	34.76	11.05	31.8	5.22
Land, etc.	95.42	—	—	—
Other items	1.49	0.37	25.0	0.17
Total	349.62	80.64	23.1	38.09
Ghataprabha Project				
Items studied	362.31	236.17	65.2	142.60
Other items with significant labour component	19.90	15.40	77.4	8.92
Land etc.	47.79	0.96	2.0	0.64
Total	430.00	252.53	58.7	152.16
Malampuzha Project				
Items studied	219.33	126.85	57.8	103.97
Other items with significant labour component	59.28	34.26	57.8	28.08
Land etc.	110.93	—	—	—
Other items	54.06	13.52	25.0	11.08
Total	443.60	174.63	39.4	143.13
Manimuthar Project				
Items studied	382.50	230.33	60.2	164.85
Other items with significant labour component	32.11	19.33	60.2	8.33
Land etc.	80.84	—	—	—
Other items	17.18	4.30	25.0	1.85
Total	512.63	253.96	49.5	175.03

more careful examination of the residual items, it might be possible to discover in them some labour costs which might raise the overall share of the labour to 20 per cent of the total; this would not be very different from the share of labour on Gangapur project. On power projects, naturally the share of labour is small and should form no more than between 12 and 15 per cent of the total.

It should be understood that the estimates of employment potential in terms of man-days given in the last column of the Table are no more than a conversion of the labour costs in money terms into labour estimates in terms of man-days; in particular, they do not indicate the number of persons, on an average, finding employment on these projects. For the latter purpose, it is necessary to know the period over which the total expenditure is spread and the actual pace of the progress of the expenditure.

To these case studies in employment potential of various irrigation schemes, we might add one more. It relates to Ghod Left Bank Canals Project in Ahmednagar district of Bombay State. The project is estimated to cost Rs. 154.61 lakh. The works were started in April 1954 and are expected to be completed by March 1958. About half of the earthwork on canals is intended to be done by manual labour and the rest by mechanical labour. The following estimates of employment potential were obtained by rough and ready methods and without a detailed examination of the itemised quantity and cost estimates. Only a broad break-up of the total cost under major heads was taken into account and, in consultation with the Executive Engineer, the share of labour and the average wages payable under each head were estimated or guessed. Thus, the share of labour under masonry and buildings was put at 20 per cent and the labour was valued at Rs. 2/- per day. For earthwork to be done with the use of heavy machinery, the share of labour was put at 10 per cent and the labour was valued at an average rate of Rs. 3/- per day. Of the cost on distributories, the share of labour was put at 50 per cent and the labour, like all other manual labour, was valued at Rs. 1/8/- per day. In Table No. 29 are the estimates of the labour costs and of the employment potential.

The share of labour in the total cost is seen to be 42 per cent. If the entire earthwork were to be done manually, the share of labour in the total cost would work out at 63.2 per cent which is in close agreement with the labour share in Ghataprabha Left Bank Canal Project.

All the schemes studied above are of medium or large size. We should expect that for minor schemes of irrigation the share of

TABLE No. 29

Estimates of employment on Ghod canals project.

Item	Total cost Rs. (Lakh)	Labour cost Rs. (Lakh)	Labour as percent to total cost	Employment man-days (Lakh)
Land, equipment etc.	4.42	—	—	—
Masonry and Buildings	56.22	11.24	20.0	5.62
Earthwork (Manual)	40.36	40.36	100.0	26.91
Earthwork (Mechanical)	36.36	3.64	10.0	1.21
Distributories	14.95	7.48	50.0	4.99
Other items	2.30	2.30	100.0	1.53
Total	154.61	65.02	42.0	40.26

labour would be somewhat larger. We should of course exclude from this category the tube well schemes. But for other minor irrigation schemes such as of percolation tanks, or small dams and canals, it seems reasonable to put the share of labour anything between 60 and 70 per cent and as a working proposition might be taken at two-thirds, that is, 66.7 per cent. Other agricultural schemes with significant labour components are those relating to land improvement. Among these, most of the schemes of reclamation of waste lands employ tractors and, on the analogy of earthwork done with heavy machinery, the share of labour in their total costs should not be much higher than 10 per cent. On the other hand, in schemes of soil conservation such as by contour bunding, the share of labour should be large. Extensive soil conservation schemes are being worked in Bombay State and from the data available from the office of the Division of Soil Conservation, it appears that the labour costs form about two-thirds of the total costs in contour bunding schemes. In fact the per acre cost works out at Rs. 60 of which Rs. 40 is the labour cost. This proportion, it will be noted, is the same as the one above suggested for minor irrigation schemes.

Among forest development schemes, the schemes of afforestation or new plantations have a very large labour component. In fact, in these schemes except for the small amounts of seed and plants and the costs of tools, hardly any material costs are involved so that the labour component should form over 90 per cent of the total cost. Schemes for improving forest communications are akin to schemes of road construction and it would be appropriate to take the labour share in them at about the same level as in the construction of inferior type of roads.

Schemes of road construction again are very important from the standpoint of their labour component. In metalled and unmetalled roads, the main non-labour items are compensation for land, royalties for pits and quarries, transport, particularly where motor transport is employed, and establishment and contingencies. Analysis of the costs of a few road works shows that these non-labour items form about 30 per cent of the total. The labour component in road cnstruction might, therefore, be taken at about 70 per cent of the total. In schemes for concreting and asphalting the existing road surfaces, the labour component would not of course be so high; it might be about 25 to 30 per cent of the cost. The same is true of works on major bridges. In the total road programme, these would, however, form a relatively small portion so that for the total road programme it might be appropriate to take the labour component at about two-thirds, that is about 66.7 per cent, of the total cost.

As in the irrigation schemes, so in the schemes of water-supply, there are two principal components : head-works and distribution system. The head-works in water-supply schemes are similar to the masonry dams in irrigation schemes and the labour component in them might be put at 40 per cent of the total cost. The distribution systems are, however, different in the two cases; in one case it consists of open canals and, in the other, of underground pipe line. An examination of a few water supply schemes involving only pipe laying, shows that the share of labour might be put at 30 per cent of the total cost. The relative shares of the head-works and the distribution system in the total cost of a scheme largely depends upon the location of the head-works. However, it is usual to take the share of head-works at about two-thirds in urban works and at about one-half in rural water-supply schemes. Hence, in water-supply schemes, we might take the share of labour at about 35 per cent of the total cost.

Finally, we have the housing schemes. On the basis of some building works in cities, it appears that the labour component is about 40 per cent of the total. However, probably the labour involved in quarrying, metal breaking, brickmaking and in transport is not included in this estimate. Therefore the share of labour in housing schemes might be put at approximately 50 per cent of the total cost. It is presumed that the cost of land is not included in housing schemes but that it is separately provided for.

The estimates of labour employment potential of various schemes suggested in this chapter are of course only approximate. Nevertheless, it is hoped that they are good enough for an overall

assessment of the labour potential of a large number of different types of schemes spread over a country as wide as India. In the next chapter, we shall evaluate the First Five Year Plan from the standpoint of its labour potential.

CHAPTER VI

PROGRESS OF THE FIRST FIVE YEAR PLAN.

It is obvious that recommendations for additional schemes or projects in order to create additional employment suitable for agricultural labour must be viewed against the background of the relative progress made by the many schemes or projects included in the First Five Year Plan. It is well known that the actual performance in most spheres is lagging considerably behind the Plan. Thus, of the aggregate development expenditure of Rs. 2249 crore planned for the five years, only about Rs. 885 crore, or 40 per cent of the total, was spent during the first three years. A very considerable stepping up of the expenditure in the remaining period is thus called for, if the Plan is to be fully executed within the five year period. The balance of expenditure remaining for the current year, that is, for 1954-55 and the next year, that is 1955-56, works out at Rs. 1364 crore. The Central and State budgets for 1954-55 have provided for an expenditure of Rs. 572 crore, and even if this were fully realised, the final year of the Plan will have to aim at a further stepping up of expenditure by Rs. 220 crore over the current year's level. This would mean that the expenditure next year will have to be nearly of the same order as the total expenditure incurred during the first three years. This indicates the magnitude of the effort required, both financial and organisational. The performance so far, has focussed attention on two principal bottle-necks: finance and administrative and technical personnel; and between the two, it is felt that the chief concern is administration rather than finance. While considering proposals for any new or additional schemes the choice must, therefore, be made from schemes of a type on which progress so far has been satisfactory.

In Table No. 30, the progress of expenditure during the first four years of the Five Year Plan under different heads has been shown. The expenditure of the Central and the States' Governments has been shown separately. In considering the expenditure during the first four years, while the actual expenditure during the first three years has been taken, for the fourth year, namely, 1954-55, the budgeted provisions have been regarded as equivalent to actual expenditure. The actual expenditure during the first four years, therefore, would be somewhat smaller than that shown in the Table. Under each head, the total planned expenditure is shown and the expenditure during the first four years has been shown as a percentage of the total planned expenditure. If the total planned expenditure

TABLE No. 30

Progress of development expenditure under the First Five Year Plan.
(Five Year Plan—Progress Report for 1953-54)

Head of Development	Central		States	
	Plan provision Rs. (Lakh)	% of total spent upto 1954-55	Plan provision Rs. (Lakh)	% of total spent upto 1954-55
Agriculture	7884.3	48.25	12033.7	65.86
Animal Husbandry & Dairying	252.0	25.08	1815.6	62.65
Forests	100.0	47.20	1016.8	56.72
Co-operation	50.0	41.00	588.4	57.58
Fisheries	100.0	39.20	383.1	47.55
Rural Development	—	—	1150.3	54.45
Community Projects	9000.0	37.06	—	—
Local Works	1500.0	80.00	—	—
Programmes for Scarcity affected Areas	1500.0	53.34	—	—
Agriculture & Community Development Total	20386.3	43.98	16987.9	63.50
Multipurpose Projects	25590.0	81.89	—	—
Irrigation Projects	—	—	21356.7	69.71
Power Projects	—	—	14735.3	75.32
Irrigation & Power Total	25590.0	81.89	36092.0	72.00
Railways	25000.0	68.13	—	—
Roads	4124.0	67.93	9006.1	82.54
Road Transport	—	—	1023.4	77.41
Shipping	2176.9	68.15	—	—
Civil Aviation	2287.0	75.70	—	—
Ports and Harbours	4004.3	55.23	161.1	40.03
Inland Water Transport	16.0	50.00	—	—
Posts and Telegraph	5000.0	63.40	—	—
Broadcasting	631.6	37.57	—	—
Overseas Communications	100.0	66.80	—	—
Meteorological Department	62.0	68.55	—	—
Transport and Communication Total	43401.8	66.40	10190.6	81.36

TABLE No. 30—(*contd.*)

Progress of development expenditure under the First Five Year Plan.
(Five Year Plan—Progress Report for 1953-54)

Head of Development	Central		States	
	Plan provision Rs. (Lakh)	% of total spent upto 1954-55	Plan provision Rs. (Lakh)	% of total spent upto 1954-55
Large-scale Industries	12426.0	32.00	1673.3	71.62
Small-scale & Cottage Industries	1750.0	25.68	1234.7	52.75
Scientific & Industrial Research	619.3	60.36	—	—
Mineral Development	106.1	62.50	—	—
Industry—Total	14901.4	32.58	2908.0	63.62
Education	4550.8	52.25	11945.9	71.82
Health	2030.1	51.98	8743.7	56.39
Housing	3850.0	47.33	1051.1	72.06
Labour & Labour Welfare	410.0	50.34	298.9	46.64
Welfare of Backward Classes	700.0	62.98	2388.6	76.10
Social Service—Total	11540.9	51.14	24428.2	70.00
Rehabilitation	1298.0	657.78	—	—
Works and Buildings	1352.3	53.66	—	—
Development Programmes under Finance Ministry	918.9	74.06	—	—
N.E.F. Agency	420.6	46.60	—	—
Programmes for development of Andaman Island	382.8	61.34	—	—
Loans to Corporation	1200.0	50.00	—	—
Miscellaneous	—	—	1211.8	77.58
Grand Total	133065.0	60.20	91818.5	70.74

is equally distributed over the Plan period, the expenditure during the first four years should form 80 per cent of the total. In judging the progress of expenditure under each head, the percentage expenditure during the first four years, should, therefore, be compared with the norm of 80 per cent.

It will be seen that the Central expenditure on Local Works and Multipurpose Projects and the States' expenditure on Roads is in keeping with the scheduled pace of the Plan. The States' expenditure on Irrigation and Power Projects, as also on Education, Housing and the Welfare of Backward Classes, though somewhat lagging behind the Plan, might be regarded as satisfactory. This is also true of the Central expenditure on Civil Aviation and on Development Programmes under the Ministry of Finance, as also of the States' expenditure on Road Transport. The Centre's and States' expenditure on most of the remaining schemes is lagging far behind the Plan so much so that it seems unlikely that the residual expenditure will be fully incurred in the remaining one year period.

From the standpoint of the present study, it seems to be a fortunate circumstance that the progress of expenditure on labour intensive schemes and projects has been generally very satisfactory. These are the local works and the multipurpose projects of the Central Government and the irrigation and power projects and the roads and housing schemes of the States' Governments. The progress of expenditure on the roads and housing schemes of the Central Government is not so satisfactory and, in fact, the Central expenditure on housing schemes during the first four years is not even half of the total Plan provision.

In addition to the schemes of irrigation, power, roads and housing, the States' plans have a few schemes included under the heads of Agriculture, Forest and Public Health, which also have a substantial labour component. They are schemes of land improvement and of minor irrigation under Agriculture, of afforestation and improvement of communications under Forest, and of water supply under Public Health. In the following we shall concentrate attention on the labour intensive schemes and examine the progress of expenditure on them in different States.

Table No. 31 gives the Plan provision on different types of labour intensive projects and schemes and the expenditure on them during the first four years as percentage of the Plan provision. As before, the budgeted expenditure for the year 1954-55 is taken as equivalent to actual expenditure. Information relating to the Irrigation, Power, Roads and Housing projects was obtained from

TABLE No. 81

Progress of development expenditure on labour intensive projects in the States' Plans.

State	Land improvement		Minor irrigation		Afforestation		Forest roads		Water supply, drainage, etc.	
	Plan Rs. (Lakh)	% spent upto 1954-55	Plan Rs. (Lakh)	% spent upto 1954-55	Plan Rs. (Lakh)	% spent upto 1954-55	Plan Rs. (Lakh)	% spent upto 1954-55	Plan Rs. (Lakh)	% spent upto 1954-55
1. Andhra	156.68	67.7	97.97	67.7	4.01	57.4	—	—	235.26	68.6
2. Assam	10.80	71.3	152.90	87.2	8.40	76.2	14.90	86.6	—	—
3. Bihar	2.87	100.0	454.20	82.8	—	—	—	—	111.25	100.0
4. Bombay	393.62	75.9	370.46	94.5	—	—	52.83	69.1	712.00	68.7
5. Madhya Pradesh	76.24	81.7	30.95	67.4	—	—	5.01	75.1	44.81	87.8
6. Madras	213.72	80.4	133.63	80.4	18.39	25.4	—	—	212.84	50.2
7. Orissa	—	—	—	—	5.40	42.6	5.90	69.5	117.60	66.8
8. Punjab	1.09	100.0	—	—	13.86	79.1	32.85	100.0	—	—
9. Uttar Pradesh	169.14	73.3	5.25	64.0	19.22	68.0	—	—	—	—
10. West Bengal	—	—	246.62	78.3	78.80	64.4	—	—	179.30	80.0
11. Hyderabad	—	—	—	—	7.70	68.8	—	—	—	—
12. Madhya Bharat	—	—	—	—	—	—	10.00	62.6	60.20	72.9
13. Mysore	37.72	91.1	217.38	83.1	6.81	67.3	—	—	—	—
14. PEPSU	—	—	—	—	38.59	60.8	5.00	50.4	—	—

TABLE No. 31—(*contd.*)

Progress of development expenditure on labour intensive projects in the States' Plans.

State	Irrigation projects		Power projects		Roads		Housing		Total	
	Plan Rs. (Lakh)	% spent upto 1954-55	Plan Rs. (Lakh)	% spent upto 1954-55	Plan Rs. (Lakh)	% spent upto 1954-55	Plan Rs. (Lakh)	% spent upto 1954-55	Plan Rs. (Lakh)	% spent upto 1954-55
1. Andhra	1709.00	63.9	2041.00	79.0	248.40	84.7	148.00	64.4	4640.32	72.1
2. Assam	152.20	93.1	157.60	38.1	265.00	71.8	—	—	761.80	72.5
3. Bihar	1323.30	45.0	973.70	76.3	1075.00	85.9	100.00	73.0	4040.32	69.9
4. Bombay	2856.30	64.1	1043.00	91.6	1163.60	152.9	77.20	104.7	6669.01	87.3
5. Madhya Pradesh	308.00	62.1	700.00	78.7	200.00	86.5	20.00	20.0	1385.01	75.5
6. Madras	2043.50	83.4	2781.00	69.8	357.60	76.4	189.60	77.9	5950.28	74.9
7. Orissa	300.00	77.2	456.00	76.2	228.90	64.7	—	—	1113.80	72.9
8. Punjab	396.00	84.1	390.20	57.7	310.60	53.4	—	—	1144.60	67.2
9. Uttar Pradesh	3168.40	76.5	2106.80	72.8	522.40	98.4	45.60	91.2	6036.81	77.1
10. West Bengal	1543.30	84.5	75.80	99.5	1401.60	72.2	373.40	72.6	3898.82	78.2
11. Hyderabad	2779.00	72.1	320.60	104.1	247.60	54.4	—	—	3354.90	73.8
12. Madhya Bharat	310.00	61.7	287.00	77.6	286.30	52.0	—	—	953.50	64.3
13. Mysore	1486.00	68.9	1390.10	79.3	334.10	95.0	7.20	55.6	3479.31	76.7
14. PEPSU	34.10	88.9	30.60	15.9	179.40	53.4	2.00	20.0	289.69	54.2

TABLE No. 31—(*contd.*)

Progress of development expenditure on labour intensive projects in the States' Plans.

	State	Land improvement		Minor irrigation		Afforestation		Forest roads		Water supply, drainage, etc.	
		Plan Rs. (Lakh)	% spent upto 1954-55	Plan Rs. (Lakh)	% spent upto 1954-55	Plan Rs. (Lakh)	% spent upto 1954-55	Plan Rs. (Lakh)	% spent upto 1954-55	Plan Rs. (Lakh)	% spent upto 1954-55
15.	Rajasthan	—	—	14.60	78.1	9.00	31.1	0.50	60.0	130.00	53.6
16.	Saurashtra	9.81	100.0	45.00	116.9	14.82	61.9	—	—	50.00	63.0
17.	Travancore-Cochin	—	—	—	—	16.10	3.0	—	—	—	—
18.	Jammu & Kashmir	—	—	—	—	—	—	—	—	75.52	59.5
19.	Ajmer	3.60	41.9	—	—	7.20	68.1	—	—	—	—
20.	Bhopal	30.00	84.7	75.00	96.3	—	—	10.50	82.9	51.00	66.1
21.	Bilaspur	—	—	4.00	85.0	1.50	00.0	—	—	2.00	80.0
22.	Coorg	—	—	6.00	18.3	—	—	—	—	5.00	104.0
23.	Delhi	8.80	26.1	12.50	59.2	2.20	36.4	—	—	—	—
24.	Himachal Pradesh	—	—	—	—	1.46	31.5	8.35	5.2	30.00	77.5
25.	Kutch	—	—	50.00	52.2	0.20	100.0	—	—	—	—
26.	Manipur	—	—	—	—	1.90	00.0	—	—	—	—
27.	Tripura	0.80	00.0	3.53	41.4	3.00	35.0	—	—	—	—
28.	Vindhya Pradesh	38.77	73.3	35.21	63.2	1.40	85.0	3.70	81.1	17.00	54.9
	All India Total	1153.66	75.9	1955.20	65.3	259.96	55.7	149.54	66.7	2033.78	64.5

TABLE No. 31—(*contd.*)

Progress of development expenditure on labour intensive projects in the States' Plans.

State	Irrigation projects		Power projects		Roads		Housing		Total	
	Plan Rs. (Lakh)	% spent upto 1955	Plan Rs. (Lakh)	% spent upto 1955	Plan Rs. (Lakh)	% spent upto 1955	Plan Rs. (Lakh)	% spent upto 1955	Plan ned expendi-ture Rs. (Lakh)	% spent upto 1955
15. Rajasthan	772.30	61.0	291.60	73.1	500.00	60.2	2.00	150.0	1720.00	62.4
16. Saurashtra	779.60	70.9	212.50	80.4	300.00	106.7	9.10	54.9	1420.83	81.1
17. Travancore-Cochin	578.00	69.6	1185.00	70.5	175.00	90.5	10.00	241.0	1964.10	72.6
18. Jammu & Kashmir	481.40	51.6	77.70	69.9	537.30	25.1	12.00	62.5	1183.92	41.4
19. Ajmer	36.30	39.4	—	—	15.90	81.1	—	—	63.00	53.4
20. Bhopal	10.00	40.0	30.90	95.2	40.00	61.8	—	—	247.40	80.1
21. Bilaspur	—	—	—	—	23.00	77.4	—	—	30.50	74.8
22. Coorg	—	—	35.00	00.0	25.00	75.2	—	—	71.00	35.4
23. Delhi	—	—	—	—	25.00	70.4	55.00	—	103.50	27.2
24. Himachal Pradesh	80.00	26.3	13.50	99.3	150.00	69.3	—	—	283.31	57.3
25. Kutch	91.00	87.0	43.00	72.1	58.30	74.3	—	—	242.50	74.1
26. Manipur	—	—	12.00	50.8	81.30	46.5	—	—	95.20	46.1
27. Tripura	—	—	7.00	97.1	128.00	63.8	—	—	142.33	63.9
28. Vindhya Pradesh	—	—	72.50	41.7	125.90	60.5	—	—	294.48	57.9
All India Total	21237.70	69.7	14734.10	75.3	9005.20	82.5	1051.10	72.1	51580.24	73.6

TABLE No. 32

Summary of progress of development expenditure on labour intensive projects in the States' Plans.

State	Land improvement	Minor irrigation	Afforestation	Forest roads	Water supply drainage, etc.	Irrigation projects	Power projects	Roads	Housing	Total
1. Andhra	**	**	***	—	**	**	—	—	**	*
2. Assam	*	—	—	—	—	—	***	*	—	*
3. Bihar	—	—	—	—	—	***	—	—	*	**
4. Bombay	—	—	—	**	**	**	—	—	—	—
5. Madhya Pradesh	—	**	—	—	—	**	—	—	***	—
6. Madras	—	—	***	—	***	—	**	—	—	*
7. Orissa	—	—	***	**	**	—	—	**	—	*
8. Punjab	—	—	—	—	—	—	***	***	—	**
9. Uttar Pradesh	*	**	**	—	—	—	*	—	—	—
10. West Bengal	—	—	**	—	—	—	—	*	*	—
11. Hyderabad	—	—	**	—	—	*	—	***	—	*
12. Madhya Bharat	—	—	—	**	*	**	—	***	—	**
13. Mysore	—	—	**	—	—	**	—	—	***	—
14. PEPSU	—	—	**	***	—	—	***	***	***	***

Not satisfactory = * ; Unsatisfactory = ** ; Very unsatisfactory = *** .

TABLE No. 32—(contd.)

Summary of progress of development expenditure on labour intensive projects in the States' Plans.

	State	Land improvement	Minor irrigation	Afforestation	Forest roads	Water supply drainage, etc.	Irrigation projects	Power projects	Roads	Housing	Total
15.	Rajasthan	—	—	***	**	***	**	*	**	—	**
16.	Saurashtra	—	—	**	—	**	*	—	—	***	—
17.	Travancore-Cochin	—	—	***	—	—	**	*	—	—	*
18.	Jammu & Kashmir	—	—	—	—	***	***	**	***	**	***
19.	Ajmer	***	—	**	—	—	***	—	—	—	***
20.	Bhopal	—	—	—	—	**	***	—	**	—	—
21.	Bilaspur	—	—	***	—	—	—	—	—	—	*
22.	Coorg	—	***	—	—	—	—	***	—	—	***
23.	Delhi	***	***	***	—	—	—	—	*	—	***
24.	Himachal Pradesh	—	—	***	***	—	***	—	**	—	***
25.	Kutch	—	***	—	—	—	—	*	*	—	*
26.	Manipur	—	—	***	—	—	—	***	***	—	***
27.	Tripura	***	***	***	—	—	—	—	**	—	**
28.	Vindhya Pradesh	*	**	—	—	***	—	***	**	—	***
	All India	—	**	***	**	**	**	—	—	*	*

Not satisfactory = * ; Unsatisfactory = ** ; Very unsatisfactory = *** .

the publication 'Five Year Plan—Progress Report for 1953-54'. (Planning Commission—Government of India). On the other hand, information relating to schemes of land improvement and minor irrigation under Agriculture, of afforestation and forest communications under Forest and of water supply under Public Health, as these details were not available in the Progress Report, was obtained from the Progress Division of the Planning Commission. However this information for Andhra, Madras, Madhya Bharat, Travancore-Cochin and that relating to Agricultural schemes in Orissa was not readily available in the Progress Division. This was therefore based on the publication "Development Schemes in the First Five Year Plan". This involved two adjustments. Firstly, as at the time of the publication of "Development Schemes", Andhra and Madras were not separated, the schemes were not shown separately for the two States in that publication. The separation shown in Table No. 31 is based on the assumption that the labour intensive schemes under Agriculture, Forest and Public Health, bore to the total expenditure under each head, the same ratios in the two States. The second adjustment relates to the information as to the progress of expenditure on these schemes during the first four years. The publication "Development Schemes" was published in 1952 and did not naturally indicate the progress of expenditure upto 1954. Therefore, the percentage of the total provision spent during the first four years, as shown in Table No. 31 indeed relates, in the case of land improvement and minor irrigation, to the total expenditure under the main head Agriculture; in the case of afforestation and forest communication, to the total expenditure under the main head Forest; and similarly in the case of schemes of water supply, to the total expenditure under the main head Public Health. This implies the assumption that the progress of expenditure, in these States, on the labour intensive schemes under the heads Agriculture, Forest and Public Health was about the same as the progress of the total expenditure on each one of the main heads and hence might involve some error.

The progress of expenditure during the first four years of the Plan is to be judged against the norm of 80 per cent on the assumption of a uniform distribution of expenditure over the Plan period. To enable a summary appreciation of the progress of expenditure on different types of labour intensive projects in different States, we have prepared Table No. 32, summarising the progress on various types of projects in different States. In this Table, all cases of unsatisfactory progress are marked with one, two or three asterisks; cases where the expenditure during the first four years is between 70 and 75 per cent of the Plan provision are marked with a single asterisk thus *; those where the expenditure during the first four

years is between 60 and 70 per cent of the Plan provision are marked with a double asterik thus**; and all cases where the expenditure during the first four years is less than 60 per cent of the Plan provision are marked with three asterisks thus ***. It will be seen that in many States the progress of expenditure on a number of labour intensive schemes is lagging behind the Plan provision to a more or less extent. Afforestation is generally lagging very much behind the Plan. Progress of expenditure on schemes of water-supply, is also not entirely satisfactory. Regarding roads programmes, though the overall expenditure had kept pace with the Plan provision, the progress is not very satisfactory in a number of States. It is clear therefore that before recommending the enlargement of any programme in a State, it would be necessary to ascertain that if the progress of expenditure on that programme within the Five Year Plan was not satisfactory, the difficulties were entirely financial.

We might now assess the labour employment potential of the First Five Year Plan as a whole. In doing this, for simplicity, we shall concentrate attention only on the labour intensive projects and schemes and approximately estimate the labour component in their total cost. In Table No. 33, we give the Plan provision for the various labour intensive projects of the Centre and the States, the labour percentage in the total cost on the basis of which the labour component was estimated and the estimated labour cost component of these projects. It will be seen that the share of labour in the various projects has been estimated on a rather liberal basis.

On the basis of these computations the labour component in the Centre's Plan comes to about Rs. 132 crore and that in the States' Plans to about Rs. 229 crore. The two together thus come to about Rs. 360 crore. Thus even if some allowance is made for the labour requirements of the remaining projects, it seems most unlikely that the additional labour employment created by the Five Year Plan over the five year period would very much exceed Rs. 400 crore. This might be compared with our estimates of additional employment needed to give the agricultural labour certain minima of earnings. We estimated that approximately Rs. 300 crore worth of additional employment was necessary annually to give the agricultural labour families a minimum of Rs. 350 per annum per earner; or that approximately Rs. 170 crore worth of additional employment would be needed to give them a minimum of Rs. 300 per annum per earner. It is thus obvious that at least a doubling of the labour content of the Plan will be necessary to attain even the lower of the two employment targets; in order to attain the other target of Rs. 350 per annum to every earner, the labour content will have to be raised to at least three or four times the level in the Five Year Plan.

TABLE No. 33

Estimates of labour employment potential in the labour intensive projects of the First Five Year Plan.

Head of Development	Plan provision Rs. (Crore)	Labour cost as percent to total cost	Estimated labour cost Rs. (Crore)
Central Plan			
Local works	15.00	50	7.50
Programmes for scarcity affected areas	15.00	70	10.50
Multipurpose Projects	255.90	20	51.18
Roads	41.24	70	28.87
Ports and Harbours	40.04	20	8.01
Housing	38.50	50	19.25
Works and Buildings	13.52	50	6.76
Central Plan Total	419.20	—	132.07
States' Plan			
Land Improvement	11.54	70	8.08
Minor Irrigation	19.55	70	13.68
Afforestation	2.60	90	2.34
Communication (forests)	1.50	70	1.05
Water supply, drainage etc.	20.34	35	7.12
Irrigation Projects	212.38	50	106.19
Power Projects	147.34	15	22.10
Roads	90.05	70	63.03
Housing	10.51	50	5.26
States' Plan Total	515.81	—	228.85
Grand Total	935.01	—	360.92

In order to examine the position statewise, in Table No. 34, we give for each state the estimates of additional employment needed on the basis of the two hypothetical minima of Rs. 350 and Rs. 300 per annum per earner respectively. In parallel columns we show for each state the labour employment potential, estimated on the same basis as described above, of the States' Plan provision for the whole Plan period and for the balance of the Plan provision remaining unspent at the end of the fourth year. The small discrepancy between the estimates of the labour potential in States' Plan as appearing in this and the previous table is on account of errors of rounding.

It is quite clear that the requirements of additional employment are small and negligible in the North and North-West India and also in the Eastern states of Assam and West Bengal. All these states are listed at the beginning in Table No. 34. For them the total additional employment needed to attain even the higher employment target, is only Rs. 4.65 crore. On the other hand, the Five Year Plans of these states have a labour component of about Rs. 85.80 crore and the labour component of the balance of the Five Year Plan is about Rs. 24.55 crore. In addition there is of course the labour component of the Central Plan operating in these states. It is thus obvious that from the point of view of its labour employment potential, the pace of the present Plan is quite adequate in these states.

The problem of providing additional employment is very acutely concentrated in the remaining states, namely, in Bihar and Orissa and in all the states of the Central and Southern India. For them the total additional employment needed to attain the two hypothetical targets is Rs. 293.70 crore and Rs. 168.70 crore respectively. As against this, their Five Year Plans have a total labour potential of only Rs. 143.05 crore and the balance of the Plans remaining for the fifth year has a labour potential of only Rs. 32.91 crore. To this must of course be added the labour potential of the Central Plan operated in these states.

Among the labour intensive projects of the Centre, the multipurpose projects are the most important and have a total labour component of over Rs. 50 crore. Two of them, namely, Bhakra Nangal and Harike projects which together account for about half the total expenditure on the multipurpose projects, are situated in Punjab and the labour employed on those projects is naturally drawn from Punjab, PEPSU and Rajasthan. The other two projects, namely, Damodar Valley and Hirakud are situated in West Bengal and Orissa respectively and the labour employed is largely drawn from Bihar, Orissa and Eastern Madhya Pradesh. We might there-

TABLE No. 34

Additional employment needs compared with the employment potential of the States' Plans.

	State	Additional employment needed Rs. (Crore) annually to give a minimum annual income of		Employment potential Rs. (Crore) of the States' Plan	
		Rs. 350 per earner	Rs. 300 per earner	Five Year Plan	Balance of the Plan for 1955-56
1.	Jammu and Kashmir	—	—	6.61	4.15
2.	Punjab, Bilaspur	—	—	5.31	1.66
3.	Himachal Pradesh	0.01	—	1.65	0.71
4.	PEPSU	—	—	1.86	0.80
5.	Delhi	0.01	0.01	0.62	0.43
6.	Uttar Pradesh	0.70	0.05	24.28	5.05
7.	Rajasthan	1.84	0.53	8.45	3.30
8.	Ajmer	0.06	0.02	0.38	0.17
9.	Kutch	—	—	1.28	0.35
10.	Saurashtra	1.29	0.44	7.05	1.14
11.	Assam & Manipur	0.25	0.04	4.78	1.24
12.	Tripura	—	—	0.96	0.36
13.	West Bengal	0.49	0.16	22.57	5.19
	Sub-Total	4.65	1.25	85.80	24.55
14.	Bihar	35.57	15.47	19.69	5.73
15.	Orissa	31.11	18.60	4.29	1.25
16.	Vindhya Pradesh	3.51	2.47	1.61	0.61
17.	Madhya Bharat	8.14	5.59	4.27	1.74
18.	Bhopal	1.94	1.28	1.36	0.26
19.	Madhya Pradesh	40.56	26.29	5.03	1.27
20.	Bombay	29.93	20.84	32.59	2.64
21.	Hyderabad	36.49	23.24	16.18	4.67
22.	Andhra	35.37	20.78	16.73	5.11
23.	Madras	60.25	29.12	21.47	4.86
24.	Mysore & Coorg	6.31	3.06	13.74	3.18
25.	Travancore-Cochin	4.52	1.96	6.09	1.59
	Sub-Total	293.70	168.70	143.05	32.91
	Total	298.35	169.95	228.85	57.46

fore allocate about Rs. 25 crore worth of the labour potential of the multipurpose projects to the three States of Bihar, Orissa and Madhya Pradesh.

Next in importance are the roads projects of the Centre. They have an estimated employment potential of about Rs. 30 crore. Particulars of the road projects are not given in the publication "Development Schemes"; but from the brief descriptions given, it appears that a major part of this programme is located in North and North-West India and in Assam. It seems therefore that not more than Rs. 10 crore worth of employment potential of these schemes is attributable to the Central and Southern Indian states.

Of the expenditure on Ports and Harbours, Kandla Project accounts for nearly 30 per cent. The labour on this project is presumably drawn from Kutch, Saurashtra and Rajasthan. Another 25 per cent is accounted by the improvements to Calcutta Port. Here, part of the labour would be drawn from Bihar and Orissa. The remaining 45 per cent is accounted by the projects relating to Bombay, Madras and Cochin. Of the total employment potential worth Rs. 8 crore of these projects, we might therefore attribute about Rs. 4 crore to the Southern Indian states and about Rs. 1 crore worth of employment potential to Bihar and Orissa.

The programmes for the scarcity affected areas having a labour employment potential of about Rs. 10.5 crore are entirely attributable to the South Indian states.

Allocation of the Central expenditure on local works, housing works and buildings to different states is difficult to make without a detailed examination of the various schemes. Such details are not readily at hand. The total labour employment potential of these projects is about Rs. 33.5 crore. Out of this, not more than Rs. 20 crore worth would be attributable to the Central and South Indian states.

Thus of the Central expenditure having a total labour employment potential worth about Rs. 132 crore, employment worth about Rs. 70 crore might be attributed to the Central and Southern Indian states. If we add this to the employment potential worth about Rs. 143 crore of the Plans of these states, we get a total employment potential of about Rs. 213 crore. It should be remembered that this labour potential is to be spread over five years. Therefore, the annual labour employment potential of the Plan in Bihar, Orissa and the Central and Southern states amounts to only Rs. 43 crore. This is to be compared with the need of additional employment worth about

Rs. 293.70 crore annually in these states. It is thus quite clear that the Plans of these states together with the Central projects operating in them, must be enlarged several times in order to attain any employment targets worth the name.

CHAPTER VII

LABOUR EMPLOYED ON DEVELOPMENT PROJECTS.

The previous discussion relating to the employment potential of development projects in relation to the employment needs of the agricultural labour families assumed implicitly that most of the labour employed on development projects was drawn from the agricultural labour families. As earlier noted, the Agricultural Labour Enquiry had included in the category of agricultural labour, besides landless labour families, families who possessed or cultivated some land but who nevertheless worked for wages and in whose incomes wages formed a large part. From the standpoint of this definition, a large part of the labour would of course be drawn from the agricultural labour families. Nevertheless, it would be of some interest to know as to from which classes of the society and how far from the project sites the labour on the development projects is largely drawn. In Chapter V, we have made brief general references as to the kind of labour employed on different projects included in that Chapter. No more information relating to the labour employed on development projects was readily available.

The Directorate of Economics and Statistics, Ministry of Food and Agriculture, Government of India, however very kindly agreed to organise a few small-scale studies from this point of view in different parts of the country. The Ministry has recently established four Agro-economic Research Units at four places, namely, at Delhi in the Delhi School of Economics, at Poona in the Gokhale Institute of Politics and Economics, at Madras in Madras University and at Shantiniketan in Vishwa-Bharati. Of these the unit at the Delhi School of Economics was already participating in the FAO study by agreeing to organise a comprehensive investigation at the Bhakra-Nangal Project in Punjab. The Ministry therefore requested the other three Agro-economic Research Units to organise small investigations relating to the labour employed on a few projects in their respective areas.

The Agro-economic Research Unit at the Gokhale Institute of Politics and Economics conducted the investigations at two places:—

(1) Ghod Canals Project in Ahmednagar District, Bombay;

(2) Ghataprabha Canal Project in Belgaum District, Bombay.

Both these are fairly large size works. Descriptive notes on them have already appeared in Chapter V. In the following are a few particulars regarding the labour employed on these projects.

The work on the Ghod Canals is being done by the Public Works Department of Bombay. The work currently in progress is being done by manual labour only. The labour is paid by piece rate. They work in gangs of from 30 to 60 persons each. One of them acts as the supervisor and allocates work to members of the gang and supervises them. He also keeps a muster-roll. The muster-clerk of the Department also keeps a muster-roll and checks it twice a day. Every week he measures the work of each gang and the total payment is distributed between the several members in proportion to the number of days they worked. A man is counted as a full unit, a woman three quarters of a unit and a child as half a unit for purposes of this distribution. Payment to each member is made by the muster-clerk himself. Most of the workers live in places three or four miles away from the work site either in the neighbouring villages or in hutments provided by the Department. They collect at about 9.30 in the morning and eat their breakfast. Work begins at 10 A.M. and continues upto 4 P.M. with a small break in the afternoon when the workers eat their mid-day meals.

At the time of this investigation during December 1954, there were about 2000 workers employed on the Ghod Canals Project. A total of 1907 workers were interviewed. Of these, 1243 workers, that is nearly 65 per cent, were local and every day returned to their homes in the neighbouring villages. The remaining 35 per cent came leaving their homes behind and were living either in hutments provided or in accommodation secured in the neighbouring villages. In Table No. 35 is given a percentage distribution of these workers

TABLE No. 35

Distribution of workers on Ghod Canals Project according to the distance from the home villages.

Distance in miles not more than	Per cent of workers
Local	65.2
5 miles	66.8
10 „	76.0
15 „	82.0
20 „	89.3
30 „	95.1
40 „	98.4
50 „	99.4
Total Number	1907

according to the approximate distance of their home villages from the project site.

Thus nearly 90 per cent of the workers came from within a distance of 20 miles from the project site and only 10 per cent came from farther away. Practically all the workers were drawn from places within 50 miles of the project area.

Nearly half of the workers employed belonged to the Backward Classes and most of them were agricultural labourers.

In Table No. 36 is given a distribution of the male workers according to the wages earned during the fortnight prior to the investigation.

TABLE No. 36

Distribution of male workers on Ghod Canal works according to the wages earned during a fortnight.

Wages in Rs.	*Number of workers.*
Upto 5	136
— 10	400
— 15	374
— 20	309
More than 20	48
Total Number	1267

As in the case of the Ghod Canals Project, the work on the Ghataprabha Canals is being executed by the Public Works Department of Bombay. Here, though a certain amount of labour is employed on daily wages working on masonry and concrete works as are involved in culverts, etc., the general practice seems to be to give out in bits the bulk of the earthwork to numerous petty contractors. In Chapter V, while referring to this system, it was noted that it was working satisfactorily particularly from the standpoint of the supply of labour. However, during the present investigation, a few complaints regarding unfair practices by the petty contractors, such as in the measurement of work done, were recorded. It was also reported that as there were no adequate hutments provided for, many workers came from far away places and walked several miles to and fro every day. Arrangements for drinking water were also reportedly rather unsatisfactory. These conditions, if true, seem to be concomitants of the system of petty contractors.

The investigations on the Ghataprabha Project were conducted in a section of the canal works and a total of 688 workers

were interviewed. Only 48 of them, that is only about 7 per cent of the total were local. But a large number had come from nearby villages. In Table No. 37 is given a distribution of the workers according to the distance of their home villages from the project site.

TABLE No. 37

Distribution of workers on Ghataprabha Canals Project according to the distance from the home villages.

Distance in miles not more than	Per cent of workers.
Local	7.0
5 miles	44.8
10 „	63.8
15 „	71.8
20 „	84.0
30 „	92.6
40 „	94.8
50 „	97.1
Total Number	688

Thus nearly 84 per cent of the workers came from places within 20 miles from the work site and only about 16 per cent came from farther away.

Of the workers employed, nearly 35 per cent belonged to the Backward Classes. The distribution of the workers according to the occupation is given in Table No. 38.

TABLE No. 38

Distribution of the workers on Ghataprabha Canals according to their occupation.

Occupation	No. of workers.
Agriculture	163
Agricultural labour	498
Other	27
Total	688

Thus over 70 per cent of the workers were drawn from agricultural labour classes.

The 688 workers comprised a total of 432 families. In Table No. 39 is given a distribution of these families according to the number of members working on the project.

TABLE No. 39

Distribution of labour families on Ghataprabha Canals according to the number of workers on the work.

No. of working members	No. of families
1	260
2	120
3	27
4	21
5 & more	4
Total Families	432

In Table No. 40 is given a distribution of the families according to the wages earned during the week prior to the investigation.

TABLE No. 40

Distribution of workers' families on Ghataprabha Canals according to the wages earned during one week.

Wages in Rs.	*Number of families*
1—	15
2—	21
3—	19
4—	34
5—	43
6—	70
7—	28
8—	25
9—	16
10—	70
20—	12
30 and more	8
Not stated	76
Total Families	432

Of the 432 families, 296 returned to their home villages every day even though they were quite distant. In fact there is a record of at least 30 families who came to the works every day from more than 10 miles away.

Of the 136 families who did not return to the home villages, only 12 reported having made any remittances to their homes during the previous month. The amounts were small and in all cases less than Rs. 10 each.

TABLE No. 41

Weekly expenditure (Rs.) on main items of food per consumption unit of workers' families at Ghod Canals Project.

Weekly food expenditure per consumption unit (Rs.)	No. of families	Total food	Rice & wheat	Millets	Pulses	Total food-grains.	Vegetables, spices, etc.	Edible oil	Sugar & gul	Milk	Tea, etc.
1.50—2.24	10	2.08	—	1.12	0.42	1.54	0.21	0.12	0.08	0.01	0.13
2.25—2.49	6	2.27	—	1.22	0.53	1.75	0.20	0.08	0.08	0.01	0.15
2.50—2.74	11	2.55	0.07	1.42	0.02	1.73	0.23	0.11	0.21	0.04	0.23
2.75—2.99	22	2.86	0.01	1.61	0.46	2.08	0.29	0.15	0.11	0.04	0.18
3.00—3.24	12	3.10	0.03	1.77	0.43	2.23	0.28	0.13	0.19	0.05	0.22
3.25—3.49	14	3.39	—	1.98	0.55	2.53	0.29	0.12	0.15	0.03	0.27
3.50—3.99	19	3.72	0.04	1.91	0.60	2.55	0.37	0.14	0.25	0.14	0.28
4.00—4.49	15	4.16	0.06	2.09	0.50	2.65	0.45	0.17	0.28	0.17	0.44
4.50—4.99	7	4.81	0.10	2.50	0.68	3.28	0.53	0.25	0.30	0.18	0.28
5.00—5.49	9	5.23	0.22	2.52	0.71	3.45	0.50	0.19	0.46	0.26	0.37
5.50 & above	9	7.31	0.56	2.79	0.70	4.05	1.01	0.34	0.64	0.33	0.93
Total	134	3.53	0.07	1.83	0.51	2.41	0.36	0.15	0.23	0.10	0.30

TABLE No. 42

Weekly expenditure (Rs.) on main items of food per consumption unit of workers' families' at Mudalgi (near Ghod Canals Project).

Weekly food expenditure per consumption unit (Rs.)	No. of families	Total food	Rice & wheat	Millets	Pulses	Total food-grains.	Vegetables, spices, etc.	Edible oil.	Sugagr & gul	Milk	Tea, etc.
— 1.24	9	0.96	0.03	0.68	0.06	0.77	0.09	0.03	0.01	—	0.06
1.25—1.49	12	1.33	0.10	0.66	0.30	1.06	0.10	0.05	0.03	0.01	0.08
1.50—1.74	6	1.62	0.22	0.92	0.12	1.26	0.14	0.04	0.09	0.01	0.08
1.75—1.99	7	1.84	0.14	0.88	0.28	1.30	0.20	0.05	0.09	0.05	0.15
2.00—2.99	7	2.51	0.02	1.50	0.26	1.78	0.29	0.07	0.13	0.06	0.18
3.00 & above	9	3.51	0.47	1.38	0.29	2.14	0.31	0.09	0.37	0.26	0.34
Total	50	1.83	0.16	0.93	0.22	1.31	0.18	0.05	0.11	0.05	0.13

TABLE No. 43

Weekly expenditure (Rs.) on main items of food per consumption unit of workers' families at Ghataprabha Canals Project.

Weekly food expenditure per consumption unit (Rs.)	No. of families	Total food	Rice & wheat	Millets	Pulses	Total food-grains.	Vegetables, spices, etc.	Edible oil	Sugar & gul	Milk	Tea, etc.
1.50—2.24	8	1.71	0.06	1.09	0.10	1.25	0.19	0.11	0.02	—	0.14
2.25—2.49	11	2.35	0.12	1.25	0.10	1.47	0.27	0.12	0.09	—	0.40
2.50—2.74	7	2.77	0.24	1.36	0.11	1.71	0.23	0.23	0.09	—	0.51
2.75—2.99	9	3.00	0.28	1.42	0.27	1.97	0.25	0.21	0.14	0.09	0.34
3.00—3.24	10	3.28	0.53	1.44	0.13	2.10	0.26	0.16	0.18	0.10	0.48
3.25—3.49	9	3.64	0.23	1.71	0.22	2.16	0.37	0.22	0.22	0.13	0.54
3.50—3.99	12	3.92	0.39	1.82	0.18	2.39	0.45	0.26	0.18	0.05	0.59
4.00—4.49	9	4.49	0.61	1.97	0.18	2.76	0.51	0.34	0.28	0.13	0.47
4.50—4.99	10	5.02	0.52	1.96	0.22	2.70	0.42	0.29	0.39	0.26	0.96
5.00—5.49	4	5.26	0.54	1.96	0.21	2.71	0.43	0.22	0.51	0.33	1.06
5.50 & above	11	6.53	0.84	2.23	0.21	3.28	0.55	0.30	0.50	0.34	1.56
Total	100	3.39	0.34	1.55	0.16	2.05	0.33	0.20	0.19	0.09	0.53

TABLE 44.

Weekly expenditure (Rs.) on main items of food per consumption unit of workers' families at Mirajgaon (near Ghataprabha Canals Project).

Weekly food expenditure per consumption unit (Rs.)	No. of families	Total food	Rice & wheat	Millets	Pulses	Total food-grains.	Vegetables, spices, etc.	Edible oil	Sugagr & gul	Milk	Tea, etc.
Below 1.5	7	1.17	0.15	0.54	0.04	0.73	0.16	0.06	0.10	0.04	0.08
— 2.0	8	1.69	0.28	0.84	0.10	1.22	0.19	0.07	0.13	0.02	0.06
— 2.5	6	2.11	0.31	1.16	0.16	1.63	0.22	0.13	0.09	0.00	0.04
— 3.0	8	2.75	0.43	1.26	0.23	1.92	0.27	0.11	0.21	0.10	0.14
— 3.5	8	3.29	0.41	1.39	0.30	2.10	0.32	0.11	0.34	0.07	0.35
Above 3.5	9	4.00	0.58	2.00	0.43	3.01	0.34	0.16	0.32	0.03	0.14
Total	46	2.50	0.36	1.19	0.21	1.76	0.24	0.11	0.20	0.05	0.14

During the investigations on both the projects, namely on Ghod Canals and Ghataprabha Canals, data relating to the weekly food expenditure was obtained from a number of workers' families who had come to the works leaving their homes behind and who thus did not return to their home villages every day. A total of 134 families on Ghod Canals and 100 families on Ghataprabha Canals were interviewed for this purpose. For purposes of comparison, a sample of families normally resident in nearby villages was also chosen. For comparison with the families on Ghod Canals, a parallel sample of 46 families was chosen from Mirajgaon, a village about 30 miles from the Canal works. For comparison with the families on the Ghatprabha Canals, a parallel sample of 50 families was chosen from Mudalgi, a village about 10 miles from the canal works. In Table Nos. 41 to 44, the four sets of families have been classified according to their total food expenditure per consumption unit and then for each group, has been shown weekly expenditure per consumption unit on different items of food.

In converting the number of persons to the equivalent consumption units, adult males were taken as one unit, adult females as 0.8 units and children as 0.4 units. These factors were derived using the data from the Ghod Canals investigation and fitting a least square regression on the hypothesis that expenditure on foodgrains would be directly proportional to the number of consumption units in the family. It should be noted that when the consumption units are so derived, the effect on the consumption of foodgrains of the levels of consumer expenditure apparent in Tables Nos. 41 to 44, becomes entirely attributable to the levels of consumer expenditure; if anything, the effect of the level of expenditure on the consumption of foodgrains is understated.

It will be seen that in all the four samples, families at higher level of expenditure consume more foodgrains and that this effect is shown right upto the highest group with expenditure levels above Rs. 5 per week per consumption unit. It is quite natural that items other than foodgrains also show larger expenditure at higher levels of consumer expenditure.

The two samples at Mirajgaon and Mudalgi belonged to landless labour families and therefore belonged to generally lower levels of food expenditure than were the families on the Canals works. But there is also an indication that at comparable levels of consumer expenditure, the families on the works consumed more foodgrains than did the families in the villages. This might be on account of the heavier manual work that the families on work were called upon to do. As the comparison is in money terms and not in terms of

quantities of foodgrains, it is also possible that the difference is at least partly due to the possible differences in prices of foodgrains on the works and in the villages.

The Agro-economic Research Unit at Shantiniketan conducted an investigation at Massanjore Dam. In the following are brief descriptive notes on the project and on the labour employed.

Massanjore is the dam site of Mayurakshi Reservoir Project of the Government of West Bengal. The dam is located on the river Mayurakshi, 12 miles below Dumka, the district headquarters of Santal Paragans in Bihar. The project is estimated to irrigate some 600,000 acres in Kharif and 120,000 acres in Rabi season in the districts of Birbhum, Murshidabad and Burdwan in West Bengal and about 30,000 acres in Kharif season in Santal Parganas of Bihar. The dam will be about 112 ft. in height and over 2000 ft. in length. The construction was started in October 1951 and is expected to be completed by June 1955.

Previously about 5000 workers used to be employed on the work but at the time of the present investigation conducted during January 1954, the number of workers was much smaller. The present investigation covers only the unskilled workers and there were, at the time of the investigation, a total of 457 of them belonging to 307 families. All the families were interviewed.

The wage rate for an adult male was Rs. 1/12/- per day and for a female worker it was Rs. 1/8/- per day. Out of the 307 families on work, 106 had family establishments on the site in the accomodation provided by the contractors. Among the one member families, that is in fact single workers without their families, 98 had group messing arrangements while 77 cooked their food singly. 26 families came from neighbouring villages and each day returned home.

Of the 457 workers employed, 194 came from Singbhum and 64 from Santal Parganas districts of Bihar. Most others came from other districts of Bihar such as Bhagalpur, Muzaffarnagar, Monghyr and Hazaribagh. Some also came from the eastern districts of Uttar Pradesh, namely, Balia, Gazipur and Gorakhpur. There were also about 50 workers from the districts of Ganjam and Mayurbhanj in Orissa.

In Table No. 45 is shown a distribution of the workers' families by the size of their cultivating holdings.

Thus nearly one third of the families of workers belonged to landless labour and another one-fourth had only very small holdings.

TABLE 45.

Distribution of workers' families on Massanjore Dam according to size of the cultivating holding.

Cultivating holding in acres.	Per cent of families.
Landless labourer	32.2
Upto 1 acre	24.8
— 2 „	21.8
— 3 „	7.5
— 4 „	5.2
More than 4 acres.	7.5
Non-agriculturist	1.0
Total families	307

TABLE 46.

Distribution of the workers' families on Massanjore Dam according to the number of working members on the project.

No of working members	Per cent of families
1	61.9
2	29.6
3	6.5
4 & more	2.0
Total families	307

TABLE 47.

Distribution of the workers' families on Massanjore Dam according to the wages earned during one week.

Wages in Rs.	*Per cent of families*
Less than 10	33.5
10—20	49.5
20—30	12.7
30—40	3.3
40 and above	1.0
Total families	307

In Table No. 46 is given a distribution of these families according to the number of their working members on the project.

Finally in Table No. 47, we give a distribution of the families according to the wages earned during the week previous to the investigation.

As earlier noted, a large number of workers on this project had come from far away places. A large number therefore reported remittances to their homes during the previous month. In Table No. 48 is given a distribution of these families according to the amounts of these remittances.

TABLE 48.

Distribution of the workers' families on Massanjore Dam according to the amounts of remittances sent home during one month.

Amount of remittance in Rs.	Per cent of families.
Nil	56.0
10—20	6.2
20—30	12.1
30—40	10.7
40—50	6.5
50 & above—	8.5
Total families	307

The Agro-economic Research Unit at Madras conducted similar investigations on seven different works. One of them is a medium size irrigation work; three are works on bridge or causeway constructions; the remaining three are small works on irrigation tanks. In the following are brief descriptive notes on these works and on the labour employed on them.

Araniar Project : The project costing a total of about Rs. 95.2 lakh comprises an anicut and a reservoir on the river Araniar. The site of the reservoir is at Pisatoor in Chingleput district of Madras where the river and her principal tributary, the Iyankalva, have a combined catchment area of 173 sq. miles of which 150 sq. miles are free. The bund will have a maximum height of 290 ft. and a length of 2.25 miles. Two channels, one from the left and the other from the right side take off and have a length of 3.25 and 3.75 miles respectively. They are expected to irrigate about 5500 acres in kharif and 3600 acres in rabi season.

The anicut has a total length of 520 ft. and is a masonry weir 3 ft. high. Three channels with a total length of 8.5 miles take off between the anicut and the reservoir and are expected to irrigate about 5000 acres in kharif and 2375 acres in rabi season.

The anicut has been completed. The reservoir bund portion was under construction. There were at the time of the investigation about 500 casual labourers working who were mostly employed by the contractors. The number of skilled workers was about 35. All the workers were interviewed.

Bridge across Buckingham Canal and Backwaters : Covelong is an ancient Dutch Settlement on the East Coast of Madras about 20 miles south of Madras city and is an ideal centre for tourists. There is also a mosque which is visited every day by a number of muslims. The Buckingham Canals and their backwaters lie between Kelambakkam and Covelong and people have to get down at Kelambakkam, walk a mile and cross the backwaters by ferry. A bridge of reinforced concrete is therefore being built across the Buckingham Canals.

The central span of the bridge will be 26 ft. with land span of 20 ft. on either side. For free flow of navigation boats, a free board of 12 ft. is provided. The side slopes of the earth embankment are protected from action of the backwaters by rough rivetment.

The estimated cost of the work is Rs. 1.76 lakh. The work was started in December 1954, but was delayed reportedly on account of the heavy rains at that time. It is expected to be completed during 1955-56.

There were, at the time of the present investigation, 14 skilled and 163 unskilled workers, most of whom came from Covelong. Among the 163 unskilled workers, there were 18 family units and therefore the majority of the workers were single men. Formerly, the wage rates for the unskilled labour were Rs. 1/- for men and 8 as. for women per day. Since January 1955 these have been raised to Rs. 1/4/- for men and 10 as. for women workers.

Coleron Bridge : This is a bridge over the river Coleron connecting Chidambaram with Shiyali. Formerly there was an ancient arch bridge which washed away during the floods of 1903 and there has been since then no bridge connecting the districts of South Arcot and Tanjore. The bridge now under construction is a prestressed concrete work and will consist of 14 spans of 150 ft. clear each. It is estimated to cost Rs. 34.5 lakh. The work was started in 1949 but reportedly there have been delays in the supply of material. It is expected to be completed by April 1956.

Temporary sheds have been put up by the contractors and the workers do not have to pay any rent. The number of workers employed changes very much from day to day and when out of job, the

workers often migrate to other places. At the time of the present investigation, there were 89 workers, 72 of whom belonged to 12 families, mostly of the Vaddah community who are a nomadic people, moving from place to place in search of employment. They were mostly employed on earthwork. Some of the workers here were formerly working on Neyveli project. Labour was paid mostly by piece rate.

Vallipuram Causeway : The causeway is being constructed across the river Palar on the Nelvey-Thirukalikundram Road at Vallipuram in Chingleput district. It has a total length of about 2500 ft. and is estimated to cost Rs. 4.5 lakh. The work was started in June 1953 and is now nearing completion.

Most of the workers came from the village Vallipuram. They were all landless labourers belonging to Adi Dravid caste and working under a Zamindar. Men were paid Rs. 1/- and women 8 as. per day. They were usually short of employment and shared out the available employment by regulating that, barring a few exceptions, only one member from each family would work every day.

Repairs to Thirumalai Kuppam Tank : This is a small tank in Vellore Taluk of North Arcot district of Madras. It is intended to raise the level of the bund. The work is estimated to cost about Rs. 33,000. At the time of the present investigation, on account of the harvesting season, the number of workers employed on the works was very small. There were only 32 unskilled workers employed. Wages were paid by piece rate.

Neelakantha Rayapuram Tank : This is a small tank being constructed in Wallajah taluk in North Arcot district and is estimated to cost Rs. 35,000. There were only about 63 workers employed all coming from nearby villages. All of them were working on this project only for one or two weeks. Most of the workers employed previously had left on account of the harvesting season.

Repairs to Chelamuthure Kandriga Tank: This is a small tank in Ponneri taluka of Chingleput district. The cost of the repairs is estimated to be Rs. 13,000. Previously there were about 150 workers employed but at the time of the present investigation, on account of the harvesting season, there were only about 60 workers left. They all came from the neighbouring villages. The contractors employed them on daily wages of about Rs. 1/4/- for adult males.

We shall now present the results of the investigations on these seven works in a summary form. We present below in Tables Nos. 49, 50 and 51, the distributions of the workers' families (i) by the distance of the home village from the work sites; (ii) by the size

of the cultivating holdings and (iii) by the wages earned during one week prior to the investigation.

TABLE 49.

Distribution of workers' families on works in Madras State by the distance of the home villages from work sites.

Distance (miles)	Per cent of workers' families			
	Araniar Project.	Buckingham and Coleron bridges.	Vallipuram causeway.	Tank works.
Not more than 10	87.7	75.3	81.7	95.8
„ 20	94.2	75.9	83.2	97.9
„ 30	94.6	82.5	83.2	98.6
„ 40	94.6	84.3	83.8	98.6
Total families	535	166	191	144

TABLE 50.

Distribution of the workers' families on works in Madras State according to size of the cultivating holdings.

Cultivating holding in acres.	Per cent of workers' families.			
	Araniar Project	Buckingham & Coleron Bridges.	Vallipuram Causeway	Tank works.
Landless labour	65.6	33.7	71.7	86.8
— 1	25.1	11.5	—	6.9
— 2	2.5	3.6	—	2.8
— 3	1.9	—	—	2.1
— 4	0.2	0.6	—	—
More than 4	—	2.4	—	1.4
Non-agricultural	4.7	48.2	28.3	—
Total families	535	166	191	144

It will be seen that over 80 per cent of the workers' families came from within 10 miles of the works and that among the workers' families, the landless labour families formed a very large proportion. On Araniar Project, the landless labour formed 66 per cent of the total; on Vallipuram work, they formed 72 per cent and on Tank works they were 87 per cent of the total. It is only on the Buckingham and Coleron bridges that they formed only 34 per cent of the total.

From Table No. 51, it will be seen that in most cases the families earned wages less than Rs. 10 per week; it is of course possible that in many cases they were single workers.

TABLE 51.

Distribution of workers' families on works in Madras State according to the wages earned during one week.

Weekly wages (Rs.)	Per cent of workers' families. Araniar Project.	Buckingham and Coleron Bridges	Vallipuram causeway	Tank works.
1— 2	—	—	—	—
2— 3	0.4	0.6	3.1	0.7
3— 4	2.4	21.7	10.5	2.1
4— 5	19.7	4.8	8.9	31.9
5— 6	41.2	23.6	2.6	43.1
6— 7	7.8	—	11.5	2.8
7— 8	4.6	10.2	6.8	9.0
8— 9	2.8	9.0	4.2	2.1
9—10	7.5	0.6	11.0	1.4
10—20	3.4	15.1	26.2	4.8
20 & more	4.6	5.4	14.7	1.4
Not stated	5.6	9.0	0.5	0.7
Total families	535	166	191	144

66 of the 535 families on Araniar project had left their homes behind and 35 of them reported having made remittances to their homes during the month prior to the investigation. The amounts of the remittances varied from Rs. 10 to Rs. 50. Similarly 35 of the 191 families on Vallipuram work had left their homes behind and 11 of them reported having made remittances to their homes during the previous month. In this case the amounts of remittances were larger still and varied from Rs. 20 to Rs. 70. On Buckingham and Coleron Bridges there were about 30 families, out of a total of 166, who had left home but they reported no remittances. On tank works most of the workers came from nearby villages.

In addition to these investigations done by the three Argo-economic Research Units at Poona, Shantiniketan and Madras, we have a few more investigations of the same type. They were conducted, for the purpose of this study, by the Project Evaluation Organisation of the Planning Commission and related to a number of small works in progress in a few community project areas. In the following is a list of these works showing against each the number of workers' families interviewed.

	Number of workers' families interviewed
Aliwal-Fatehgarh-Churian Road (District Gurdaspur, Punjab)	18
Batala-Beas Road (District Gurdaspur, Punjab)	33
Onpathingal-Mamkuttipadam Road (District Trichur, Travancore-Cochin)	20
Kuzur Kundur-Muthakadavu Road (District Trichur, Travancore-Cochin)	14
Mala-Muttikhal Road (District Trichur, Travancore-Cochin)	10
Kuzhar-Kochukadavu Road (District Trichur, Travancore-Cochin)	6
Birbhum Township Roads (District Birbhum, West Bengal)	50
Rithpur-Tiosa Road (District Amraoti, Madhya Pradesh)	50
Pak-Nallah Irrigation Project (District Amraoti, Madhya Pradesh)	11
Barapada-Agarapada Road (District Balasore, Orissa)	50
Punal Weir-cum-Bridge (District Kolhapur, Bombay)	26
Yawluj Weir-cum-Bridge (District Kolhapur, Bombay)	25
Ambapani-Kasal Road (District Nimar, Madhya Bharat)	25
Ranipura Tank (District Nimar, Madhya Bharat)	25
Total	363

In the following we shall present the results of these investigations in a summary form. In Table No. 52 are given the distributions of the workers' families (i) by the distance of the home village from the work site, (ii) by the size of the cultivating holdings and (iii) by wages earned during the week preceding the investigation. It will be seen that nearly 65 per cent of the families came from within ten miles of the works. This was to be expected because most of the works were small road works. In spite of this, it is noteworthy that more than 25 per cent of the workers' families came

TABLE No. 52.

Labour employed on community development projects.

Distribution of workers' families					
(i) by distance of home village from work site.		(ii) by size of cultivated holding.		(iii) by wages earned during one week.	
Distance (miles)	Per cent families	Cultivated holding (acres)	Per cent families	Wages earned during one week (Rs.)	Per cent families
Not more than 10	64.7	0	48.5	1—	1.9
				2—	3.3
20	70.0	—1	6.9	3—	2.8
				4—	6.6
30	72.5	—2	4.1	5—	9.6
				6—	9.1
40	74.1	—3	2.8	7—	6.9
				8—	9.4
More than 40	100.0	—4	3.6	9—	11.3
				10—	27.0
		More than 4	21.2	20 & more	11.3
				Not stated	0.8
		Non-agricultural families	12.9		
Total families	363	Total families	363	Total families	363

TABLE No. 53.

Labour employed on Hirakud Dam Project.

Distribution of workers' families

(i) by distance of home village from work site.		(ii) by size of cultivated holding.		(iii) by wages earned during one week.	
Distance (miles)	Per cent families	Cultivated holding (acres)	Per cent families	Wages earned during one week (Rs.)	Per cent families
Not more than 10	1.8	0	43.1	1—	—
				2—	0.6
20	6.9	—1	10.8	3—	1.0
				4—	1.4
30	9.9	—2	16.4	5—	2.7
				6—	6.4
40	14.1	—3	11.3	7—	1.7
				8—	4.2
More than 40	100.0	—4	5.0	9—	7.7
				10—	56.2
		More than 4	11.2	20 & more	16.6
				Not stated	1.5
		Non-agricultural families	2.2		
Total families	715	Total families	715	Total families	715

to the work from distances of more than 40 miles. It is also obvious that a majority of the workers were either landless labour or were very small holders. Actually nearly half of the families are seen to belong to purely landless labour class.

Most of the investigations described above, either conducted by the Agro-economic Research Units or by the Project Evaluation Organisation related either to medium or to very small works. We have in addition an investigation relating to a large project, namely, the Hirakud Dam Project. Descriptive notes on this project have appeared in Chapter V. On our request the Statistician, Office of the Chief Engineer, Hirakud Dam Project conducted a similar investigation into the labour employed on the project. The number of labour families employed on the project was very large. A properly stratified and random sample of labour families was therefore selected for the purpose of the investigation. A total of 715 families were interviewed. The results are shown in Table No. 53.

From the distribution of the families by the distance of their home villages from the work site, it will be seen that a very large proportion of the families, nearly 86 per cent, came from distances of more than 40 miles and thus came leaving their homes behind. From the distribution of these families by the size of their cultivated holdings, it will also be seen that more than half of them were either landless labour or very small cultivators cultivating less than one acre of land.

It will appear from the illustrative material presented above that a large proportion of the labour employed on development project is in fact recruited from agricultural labour families.

CHAPTER VIII

RELIEF WORKS.

From the data presented in the previous chapter, it is clear that except in the case of the very large projects where employment may continue over several years, the labour employed on most of the development projects is drawn from the surrounding region not extending much beyond say 50 miles from the project site. While planning works with the explict object of providing employment to the vast numbers of underemployed agricultural labour, there is thus need to plan them on a detailed regional basis. The ultimate economic benefits resulting from such local works may not appear sufficiently remunerative to accord them higher priority over many of the larger works. However, the larger works take time to be started and in the absence of adequate living accommodation and a promise of continued employment over a long period, they fail to attract labour from farther distances. Moreover, it is not uncommon to find that even on medium sized works, the use of heavy machinery is preferred to the employment of large numbers of workers, both from the standpoint of economy and of administrative convenience. In so far as employment of machinery quickens the pace and affords opportunities for a number of unskilled manual labourers to acquire mechanical skills, it is not obvious that the employment of machinery would be considered universally undesirable. It is obvious therefore that if employment is to be provided to a large number of workers, in addition to the medium and large works, a number of local works must be immediately started in all regions where underemployment of labour is most serious. To distinguish them from the economic works, such works might be called "relief works", though it might be mentioned that even from the economic point of view they might be found to have the advantage that their benefits are immediate and are spread over a larger population.

The idea of relief works to provide employment to rural population is not new and has been regularly practised in all famine liable tracts of the country, particularly in the South, in years of scarcity, drought or famine. With the development of communications and the consequent possibility of moving food supplies rapidly from one region to another or in fact from one country to another, the main problem to be faced in regions affected by famine, is the provision of employment to the agricultural population. The agricultural labour is always the first to be affected in bad years and the

cultivators follow only in proportion to the intensity of the famine conditions. It is only when the famine conditions are sufficiently severe to seriously affect the cultivating classes that the conditions receive public attention and to meet the situation a large number of relief works are started.

The nature of such relief works might be exemplified by the numerous small works that were started to meet the scarcity conditions with which the Gujarat districts of Bombay were affected during 1951-52. The Final Report on the Scarcity of 1951-52 in the Gujarat districts of Bombay mentions that in the ten affected districts, namely, Ahmedabad, Broach, Kaira, Panch Mahals, Sabar Kantha, Banaskantha, Mehsana, Baroda, Surat and Amreli, a total of 1692 local works were started, of which 1204 were works on bunds, irrigation tanks etc., and 488 were works on roads. To give an idea as to the sizes of these numerous works, we give in Table No. 54, their distribution according to their estimated or actual costs.

TABLE No. 54

Distribution of scarcity relief works in Gujarat districts (1951-52) *according to the actual or estimated expenditure.*

Expenditure	Number of works	
	Bunds, tanks, etc.	Roads etc.
Less than Rs. 1000	152	102
Rs. 1000-	108	35
Rs. 2000-	144	28
Rs. 3000-	142	33
Rs. 4000-	152	23
Rs. 5000-	106	29
Rs. 6000-	71	14
Rs. 7000-	77	14
Rs. 8000-	50	9
Rs. 9000-	39	12
Rs. 10000-	88	94
Rs. 20000 and above	22	85
Not available	53	10
Total	1204	488

The total cost of these works came to nearly Rs. 119 lakh. Though the comparison is not strictly valid, it might be mentioned that our estimate of the additional employment needed to give a minimum of Rs. 300 per annum to every earner in agricultural labour families in these districts was Rs. 142 lakh. The two are not strictly

comparable for two reasons. Firstly, as the relief works were executed in times of scarcity, a number of cultivators, who in normal times would not come to such works, must have earned wages from these works. Secondly, it is unlikely that a worker on these works earned anything like Rs. 250 during the year. The wages fixed by Government for an adult male were a maximum of 10 as. and a minimum of 7 as. per day. Therefore even supposing that a worker was employed over 300 days on such works, his total earnings would amount to only between Rs. 150 to Rs. 200. Therefore our estimate of additional employment needed to give a minimum of Rs. 300 per annum to every earner in normal times seems to agree dimensionally well with the amount of relief needed to give every earner a minimum of Rs. 150 in periods of scarcity.

The scarcity conditions in the Gujarat districts during 1951-52, were followed by famine conditions in the Deccan districts of Bombay during 1952-53. The districts affected were East Khandesh, West Khandesh, Nasik, Ahmednagar, Sholapur, Poona, North Satara and South Satara. In these districts there is apparently a better potential of medium size irrigation works. The number of relief works in these districts were therefore not so numerous as they were in the Gujarat districts. Nevertheless a total of about 288 relief works amounting to a total cost of Rs. 192 lakh were started. In order to give employment to local population, they included a few schemes of land improvement by contour bunding. The Final Report on these operations is not yet published by Government and hence more details of these works are not readily available.

The Gokhale Institute of Politics and Economics, Poona has however conducted a series of investigations relating to the famine conditions in these districts during this period. Of particular interest among them, from the standpoint of the present study, are those relating to the workers employed on relief works. The Institute has very kindly made the data from these investigations available for the present study. In the following are the results of these investigations.

The investigation was conducted on four relief works, namely, Kolgaon Tank and Gurav-Pimpri Tank in Ahmednagar district, Mangi Tank in Sholapur district and Sayyadnagar Dam in Nasik district. A total of 2218 workers' families were interviewed. In Table No. 55, we give their distribution according to the distance of their home villages from the work sites.

It is thus clear that most of the workers on relief works came from within 50 miles of the work sites and in the case of some relief

works, a large majority of the workers came from within 20 miles of the works.

TABLE No. 55

Distribution of workers' families on relief works according to the distance of their home villages from work sites.

Distance not more than	Per cent of families			
	Kolgaon	Gurav-Pimpri	Mangi	Sayyad-nagar
10 miles	24.2	26.7	73.8	31.5
20 „	89.2	80.8	96.6	46.4
30 „	97.8	95.3	99.1	63.4
40 „	98.1	99.0	99.3	74.1
50 „	98.7	99.5	99.3	89.6
Total families.	695	401	805	317

A majority of the workers were of course either cultivators or landless labourers. In Table No. 56, we give the distribution of the workers' families according to the size of their cultivating holdings.

TABLE No. 56

Distribution of the workers' families on relief works according to the size of their cultivating holdings.

Cultivating holding in acres	Per cent of families			
	Kolgaon	Gurav-Pimpri	Mangi	Sayyad-nagar
Landless Labour	27.1	26.7	37.9	54.6
1 to 4 acres	14.7	4.2	11.2	11.4
5 to 9 „	13.4	11.2	9.3	13.6
10 to 19 „	19.6	23.7	11.9	10.4
20 to 29 „	9.2	14.0	8.4	5.7
30 to 39 „	5.0	6.7	5.8	2.5
40 to 49 „	2.6	5.5	4.7	1.2
50 and above	2.7	3.2	6.8	—
Non-agricultural	5.7	4.8	4.0	0.6
Total families	695	401	805	317

Thus on the three works at Kolgaon, Gurav-Pimpri and Mangi, nearly 30 per cent of the workers' families were landless labourers while about 5 per cent were non-agriculturists. The remaining families were those of cultivators. On the other hand, on Sayyad-nagar Dam work, more than 50 per cent of the families belonged to agricultural labour. It might also be seen that it is on this work,

as distinguished from the other three, that workers from much longer distances had come. Thus more than 50 per cent of the families on this work had come from distances of more than 20 miles whereas on the other three works about 90 per cent of the families had come from within a distance of 20 miles. This seems to be an evidence of the fact that the landless labour is much more mobile than the cultivating families, and that the latter with larger holdings can move, even in times of scarcity, only to short distances.

This point might be brought out more directly by showing the distances from where the landless labour families and the cultivating families with different sizes of land holdings came to the relief works. In Table No. 57, we do this for the workers' families for all the four relief works put together.

TABLE No. 57

Distribution of workers' families on relief works by size of their cultivating holdings and the distance of their home villages from the relief works.

Cultivating holding in acres	Per cent of families coming from distance more than 20 miles	30 miles	40 miles	50 miles
Landless labour	20.3	10.7	7.1	3.5
1 to 4 acres	17.6	8.2	6.1	3.7
5 to 9 „	15.2	8.6	5.5	2.4
10 to 19 „	11.4	4.5	3.1	0.6
20 to 29 „	14.2	3.4	2.4	1.5
30 to 39 „	10.3	1.7	1.7	—
40 to 49 „	12.2	2.4	—	—
50 and above	2.3	1.2	1.2	1.2
Non-agricultural	17.2	4.3	2.2	2.2
All families	15.7	7.1	4.7	2.3

It is thus obvious that very few cultivating families with sizable holdings move, even in times of scarcity to distances over 30 miles from their home villages.

When families come to relief works, they usually leave a few members behind in the home villages to look after the farms and belongings. In Table No. 58, we show, for groups of families classified according to the size of their cultivating holdings, the proportion of their total members who came to the relief works.

Thus quite obviously, the landless labour families leave behind very few of their family members while the cultivating families have to leave behind larger numbers, more with larger holdings, to look after their farms.

TABLE No. 58

Proportion of family members coming to the relief works according to their cultivating holdings.

Cultivating holding in acres	Proportion of family members coming to the relief works at Kolgaon	Gurav-Pimpri	Mangi	Sayyad-nagar
Landless labour	80.3	77.5	85.4	86.4
1 to 4 acres	80.1	61.1	80.7	82.1
5 to 9 „	69.6	76.3	81.4	77.3
10 to 19 „	66.9	67.8	80.3	65.9
20 to 29 „	57.3	67.1	71.2	68.5
30 to 39 „	59.0	61.9	60.9	50.0
40 to 49 „	48.7	58.4	58.1	64.7
50 and above	58.8	63.1	52.6	—
Non agricultural	75.2	67.3	86.9	100.0
All families	69.8	69.1	75.8	79.0

Another way of looking at the same situation is to classify the families according to whether they had left any of their members behind in the home village. A number of families migrate wholesale and leave behind no members whatever. Some others leave behind only the old, infirm and the children but no working members. In Table No. 59, we show, for each group of families classified according to the size of their cultivating holdings, the proportion who left behind no working member:

TABLE No. 59

Proportion of the families on relief works who left behind no working members in the home village.

Cultivating holding in acres.	Kolgaon	Gurav-Pimpri	Mangi	Sayyad-nagar
Landless labour	75.0	73.8	80.3	76.3
1 to 4 acres	71.6	58.8	74.4	58.3
5 to 9 „	52.7	77.8	76.0	58.1
10 to 19 „	50.0	53.7	69.8	54.5
20 to 29 „	34.4	53.6	62.7	33.3
30 to 39 „	28.8	37.0	55.3	25.0
40 to 49 „	22.2	45.5	65.8	25.0
50 and above	15.8	53.8	36.4	—
Non-agricultural	70.0	68.4	84.4	100.0
All families	57.3	61.1	71.6	65.3

It must appear a remarkable fact that, though in times of distress, more than 60 per cent of the families coming to relief works,

leave behind no working members whatever. Among the landless labour families, this proportion is above 75 per cent and it might as well remain the same even in normal times. It is a measure of the insecure and hand-to-mouth living that they eke out in the villages that in search of employment they migrate to distant places leaving behind no working members whatever. If, when employment is available, these people migrate wholesale and in such large numbers, it surpasses comprehension as to what kind of life they live when none other is available except the meagre work offered on lands they do not own.

The need of relief works has been recognised in scarcity or famine conditions when the cultivator is hit hard. It is high time that their need is equally recognised at all times until such large numbers remain unsettled either on land or in other secure occupation.

CHAPTER IX

EFFECT OF THE DEVELOPMENT EXPENDITURE.

Though for the Plan as a whole, it might be generally true, as has been observed in the Progress Report for the year 1953-54, that the chief concern is administration rather than finance, in view of the relatively better progress shown by the labour intensive projects, it might be presumed that in respect of such projects, the administrative and personal problem is comparatively easy. On the other hand, though for the scale of operations envisaged in the First Five Year Plan, finance might not perhaps cause great concern, if development expenditure on a scale approximating the levels suggested in Chapter IV is to be attempted, finance is likely to appear as the principal limiting factor. In view of the reference to deficit financing that are sometimes made in this context, it seems relevant to examine, on the basis of available data, the probable effect of such large development expenditure on the demand for consumer goods.

For this purpose, we shall again fall back on the consumer expenditure data available from the Agricultural Labour Enquiry and consequently confine our attention to only the development expenditure on the labour intensive projects. For convenience of illustration, we shall follow up the hypothetical computations presented in Chapter IV and examine the effect on the consumer expenditure of expenditure on labour intensive projects on scales suggested in that chapter. More specifically, we shall examine the effect of development expenditure on labour intensive projects having a labour component of about Rs. 300 crore annually, distributed over different regions and administered in a manner so as to ensure a minimum of Rs. 350 per annum to every earner in agricultural labour families. As an alternative illustration, we shall also present comparable computations for a development expenditure with a labour component of about Rs. 170 crore executed in a manner so as to ensure a minimum of Rs. 300 per annum to every earner in agricultural labour families.

To begin with we shall examine the effect of this expenditure on the demand for foodgrains by the agricultural labour families. Data regarding consumption of foodgrains by agricultural labour families living at different economic levels of living presented in Chapter IV, clearly show that in most regions, at the levels at which a large majority of the labour families at present live, the income-elasticities for foodgrains are indeed very high. We should therefore

expect that with the increase in their incomes resulting from the development expenditure, the consumption of foodgrains by the agricultural labour families would increase substantially. For a quantitative estimation of this expected increase, we shall utilise the regional data on consumption of foodgrains in relation to the total consumer expenditure as graphically represented in a graduated form in the three graphs earlier presented. The graduation was done by hand and some element of personal judgement was therefore unavoidable. We should nevertheless mention that except in a very few cases, the graphical representation does not suffer from over graduation. Further, though in certain regions income-elasticities for foodgrains appear very high, leading to consumption of over 40 oz. of foodgrains per day per consumption unit even at moderate income levels, all such curves were truncated at this point and consumptions of over 40 oz. of foodgrains were left out of the following computations. Perhaps we should also mention that the computations presented below are at best meant to give an approximate idea of the dimensions involved and in particular that the apparent precision accompanying the presentation of numerical quantities is not meant to be conveyed.

As earlier described, the Agricultural Labour Enquiry classified all agricultural labour families according to what has been described as "economic levels of living" determined by the total consumer expenditure per consumption unit. For each such group of families we then estimate the rise in its average total consumer expenditure on the hypothesis that the additional development expenditure enables every earner to earn a minimum of Rs. 350 per annum and that the entire additional income results in a net additional consumer expenditure. From the graph, we then read off the average additional foodgrains that the groups of families consume at the new level of total consumer expenditure. The process is repeated for all the groups of families living at different economic levels of living. The additional consumption of foodgrains by the several groups of families when aggregated gives the estimated additional consumption of foodgrains in the region. Thus it should be pointed out that though a certain amount of averaging is unavoidable in such computations, the following computations are not based on very summary averages of large and heterogeneous aggregates. In the first instance, the 63 regions are kept distinct and secondly within each region, groups of families living at different economic levels of living are treated separately. One should therefore expect the following computations to be somewhat closer to reality than similar computations based on summary aggregative type of analysis.

The above procedure yields for each region estimates of additional consumption of all foodgrains together. To estimate the additional consumption of wheat, rice, millets and pulses, separately, the above procedure should have been appropriately applied to the consumption of each of them separately. This could not be attempted within the short time this monograph was prepared. Therefore in order to estimate the quantities of additional consumption of rice, wheat, millets and pulses, separately, we have assumed that all foodgrains will show the same proportionate increase. This is obviously not true. For instance, except in the few regions where rice is the exclusive cereal, it is well known that in all regions rice and wheat are generally regarded as the richer foodgrains so that their income elasticities are higher than those of millets. There is ample evidence to this effect in the consumption data of the Agricultural Labour Enquiry. Therefore as a result of our approximate procedure, we are likely to overestimate the increase in the consumption of millets and underestimate the increase in the consumption of rice and wheat. The relative position of cereals and pulses is not generally so clear and there is a certain amount of apparently contradictory evidence in a number of regions. In Table No. 60, we give the estimated increase in the consumption of rice, wheat, millets and pulses thus estimated on the hypothesis of a development expenditure with a labour component of about Rs. 300 crore annually. In Table No. 61, we give similar estimates on the basis of the alternative hypothesis of a development expenditure with a labour component of Rs. 170 crore annually.

It will thus appear that with a total additional employment worth about Rs. 300 crore, needed to give every earner from agricultural labour families a minimum of Rs. 350 per annum, the foodgrains consumption of agricultural labour families will be increased by about 908.57 lakh of maunds a major portion of which will comprise rice and millets. The present prices of rice and wheat range from Rs. 12 to Rs. 15 per maund in different parts of the country and of millets and pulses from Rs. 7 to Rs. 10 per maund. As rice and wheat together and millets and pulses together form nearly half and half of the total estimated additional consumption of foodgrains, we might conveniently evaluate all foodgrains at an average rate of Rs. 11 per maund. This gives the value of the estimated increase in the consumption of foodgrains in the neighourhood of Rs. 100 crore. Thus out of a total additional income of Rs. 300 crore to agricultural labour families, about Rs. 100 crore, that is about 33 per cent, may be expected to be spent on additional consumption of foodgrains,

TABLE No. 60

Estimates of additional consumption of foodgrains as a result of additional employment needed to give every earner in agricultural labour families a minimum of Rs. 350 per annum.

Lakh maunds.

Region	Rice	Wheat	Other cereals	Pulses	Total
North and North-West India.					
1. Jammu and Kashmir	—	—	—	—	—
2. Punjab & Bilaspur	—	—	—	—	—
3. Himachal Pradesh	—	—	—	—	—
4. PEPSU	—	—	—	—	—
5. Delhi	—	0.02	0.01	—	0.03
6. West Uttar Pradesh	0.02	0.15	0.71	0.08	0.96
7. North Uttar Pradesh	—	—	—	—	—
8. Central Uttar Pradesh	0.04	0.03	0.65	0.09	0.81
9. South Uttar Pradesh	—	—	—	—	—
10. East Uttar Pradesh	0.08	0.02	0.41	0.07	0.58
11. West Vindhya Pradesh	0.39	0.31	2.09	0.08	2.87
12. North Madhya Bharat	0.02	0.07	0.64	0.14	0.87
13. Bhopal	—	2.44	3.31	0.24	5.99
14. North Madhya Pradesh	1.06	2.12	3.29	2.44	8.91
15. North West Raj.	—	0.19	3.42	0.15	3.76
16. East Rajasthan	—	0.05	0.69	0.04	0.78
17. South-West Raj.	0.01	0.02	0.49	0.05	0.57
18. Ajmer	—	0.01	0.09	—	0.10
19. Kutch	—	—	—	—	—
20. Saurashtra	0.01	0.14	1.43	0.06	1.64
21. Bombay-Gujarat	0.27	0.27	3.71	0.63	4.88

TABLE No. 60—(*contd.*)

Estimates of additional consumption of foodgrains as a result of additional employment needed to give every earner in agricultural labour families a minimum of Rs. 350 per annum.

Lakh maunds.

Region	Rice	Wheat	Other cereals	Pulses	Total
Eastern India.					
22. Assam Frontier	—	—	—	—	—
23. Assam Tea Region	0.65	—	—	0.03	0.68
24. Assam Plains	—	—	—	—	—
25. Tripura	—	—	—	—	—
26. West Bengal I (North)	—	—	—	—	—
27. W. B. II-VIII (North)	—	—	—	—	—
28. W. B. III (North)	—	—	—	—	—
29. W. B. IV (Central)	—	—	—	—	—
30. W. B. VII (East)	—	—	—	—	—
31. W. B. V (Coastal)	—	—	—	—	—
32. Western W. B. VI	—	—	—	—	—
33. North-East Bihar	2.75	0.36	3.47	0.60	7.18
34. North-West Bihar	9.21	0.80	12.02	1.24	23.27
35. Central Bihar	7.60	0.52	7.08	1.63	16.83
36. South Bihar	32.31	0.85	11.90	1.70	46.76
37. East Vindhya Pradesh	0.46	0.11	3.60	0.11	4.28
38. Central Vindhya P.	1.04	0.83	5.52	0.21	7.60
39. North-East Orissa	39.07	—	3.72	1.86	44.65
40. South-East Orissa	32.24	—	3.07	1.54	36.85
41. West Orissa	41.10	—	3.91	1.96	46.97
42. East Madhya Pradesh	53.50	0.51	18.09	2.93	75.03

TABLE No. 60—(*contd.*)

Estimates of additional consumption of foodgrains as a result of additional employment needed to give every earner in agricultural labour families a minimum of Rs. 350 per annum.

Lakh maunds.

	Region	Rice	Wheat	Other cereals	Pulses	Total
Southern India.						
43.	South Madhya Bharat	0.71	2.49	21.30	4.61	29.11
44.	Nimar-Madhya Bharat	0.05	0.16	2.06	0.21	2.48
45.	North Deccan	0.12	2.73	15.23	1.17	19.25
46.	Central Deccan	0.34	0.68	10.53	0.68	12.23
47.	South Deccan	1.76	0.58	26.34	0.70	29.38
48.	Bombay Coastal	4.44	0.52	4.43	0.26	9.65
49.	West Madhya Pradesh	4.85	0.97	40.75	3.10	49.67
50.	West Hyderabad	0.15	0.39	33.34	1.99	35.87
51.	East Hyderabad	15.93	0.02	24.76	0.44	41.15
52.	Agency Andhra	4.58	—	9.52	0.70	14.80
53.	North Andhra	55.13	—	20.32	1.45	76.90
54.	South Andhra	1.08	—	27.49	0.59	29.16
55.	East Madras	43.55	—	41.66	1.89	87.10
56.	Central Madras	22.36	—	41.29	3.44	67.09
57.	West Madras	16.76	0.54	—	0.54	17.84
58.	Nilgiri-Madras	0.51	—	0.35	0.06	0.92
59.	South Mysore	0.37	0.15	3.34	0.30	4.16
60.	West Mysore	16.17	—	—	0.15	16.32
61.	North Mysore	1.14	—	14.23	0.57	15.94
62.	Travancore	0.74	0.04	0.20	0.04	1.02
63.	Cochin	5.63	—	—	0.05	5.68
	Total	418.20	19.09	430.46	40.82	908.57

TABLE No. 61

Estimates of additional consumption of foodgrains as a result of additional employment needed to give every earner in agricultural labour families a minimum of Rs. 300 per annum.

Lakh maunds.

Region	Rice	Wheat	Other cereals	Pulses	Total
North and North-West India.					
1. Jammu and Kashmir	—	—	—	—	—
2. Punjab & Bilaspur	—	—	—	—	—
3. Himachal Pradesh	—	—	—	—	—
4. PEPSU	—	—	—	—	—
5. Delhi	—	0.02	0.01	—	0.03
6. West Uttar Pradesh	—	—	—	—	—
7. North Uttar Pradesh	—	—	—	—	—
8. Central Uttar Pradesh	—	—	0.05	0.01	0.06
9. South Uttar Pradesh	0.01	—	0.06	0.01	0.08
10. East Uttar Pradesh	0.01	—	0.07	0.01	0.09
11. West Vindhya Pradesh	0.29	0.23	1.54	0.06	2.12
12. North Madhya Bharat	0.01	0.04	0.33	0.07	0.45
13. Bhopal	—	1.87	2.54	0.18	4.59
14. North Madhya Pradesh	0.24	0.48	0.74	0.55	2.01
15. North-West Raj.	—	0.04	0.80	0.03	0.87
16. East Rajasthan	—	—	0.04	—	0.04
17. South-West Raj.	0.01	0.01	0.32	0.03	0.37
18. Ajmer	—	—	0.03	—	0.03
19. Kutch	—	—	—	—	—
20. Saurashtra	—	0.09	0.89	0.04	1.02
21. Bombay-Gujarat	0.19	0.20	2.65	0.45	3.49

TABLE No. 61—(*contd.*)

Estimates of additional consumption of foodgrains as a result of additional employment needed to give every earner in agricultural labour families a minimum of Rs. 300 per annum.

Lakh maunds.

Region	Rice	Wheat	Other cereals	Pulses	Total
Eastern India.					
22. Assam Frontier	—	—	—	—	—
23. Assam Tea Region	0.22	—	—	0.01	0.23
24. Assam Plains	—	—	—	—	—
25. Tripura	—	—	—	—	—
26. West Bengal I (North)	—	—	—	—	—
27. W. B. II-VIII (North)	—	—	—	—	—
28. W. B. III (North)	—	—	—	—	—
29. W. B. IV (Central)	—	—	—	—	—
30. W. B. VII (East)	—	—	—	—	—
31. W. B. V (Coastal)	—	—	—	—	—
32. Western W. B. VI	—	—	—	—	—
33. North-East Bihar	0.95	0.12	1.19	0.21	2.47
34. North-West Bihar	2.70	0.23	3.52	0.36	6.81
35. Central Bihar	1.54	0.11	1.43	0.33	3.41
36. South Bihar	18.47	0.49	6.80	0.97	26.73
37. East Vindyhya Pradesh	0.36	0.09	2.86	0.09	3.40
38. Central Vindhya P.	0.86	0.69	4.56	0.17	6.28
39. North-East Orissa	23.75	—	2.26	1.13	27.14
40. South-East Orissa	25.83	—	2.46	1.23	29.52
41. West Orissa	33.34	—	3.17	1.59	38.10
42. East Madhya Pradesh	42.20	0.40	14.27	2.31	59.18

TABLE No. 61—(*contd.*)

Estimates of additional consumption of foodgrains as a result of additional employment needed to give every earner in agricultural labour families a minimum of Rs. 300 per annum.

Lakh maunds.

Region	Rice	Wheat	Other cereals	Pulses	Total
Southern India.					
43. South Madhya Bharat	0.53	1.87	15.99	3.46	21.85
44. Nimar-Madhya Bharat	0.04	0.13	1.73	0.18	2.08
45. North Deccan	0.09	2.07	11.51	0.88	14.55
46. Central Deccan	0.31	0.61	9.46	0.61	10.99
47. South Deccan	1.37	0.46	20.51	0.55	22.89
48. Bombay Coastal	3.82	0.45	3.82	0.22	8.31
49. West Madhya Pradesh	3.21	0.64	26.97	2.06	32.88
50. West Hyderabad	0.10	0.25	21.67	1.29	23.31
51. East Hyderabad	12.25	0.01	19.04	0.34	31.64
52. Agency Andhra	3.49	—	7.25	0.54	11.28
53. North Andhra	34.03	—	12.54	0.89	47.46
54. South Andhra	0.71	—	17.98	0.39	19.08
55. East Madras	24.94	—	23.86	1.08	49.88
56. Central Madras	11.59	—	21.39	1.78	34.76
57. West Madras	7.10	0.23	—	0.23	7.56
58. Nilgiri-Madras	0.38	—	0.26	0.05	0.69
59. South Mysore	0.23	0.09	2.03	0.18	2.53
60. West Mysore	8.62	—	—	0.08	8.70
61. North Mysore	0.66	—	8.31	0.33	9.30
62. Tranvancore	0.18	0.01	0.05	0.01	0.25
63. Cochin	3.92	—	—	0.04	3.96
Total	268.55	11.93	276.96	25.03	582.47

On the alternative hypothesis of an additional employment worth about Rs. 170 crore needed to give every earner from agricultural labour families a minimum of Rs. 300 per annum, it will appear that the net increase in the consumption of foodgrains will be nearly 582.47 lakh maunds. Valued at Rs. 11 per maund this will amount to about Rs. 64 crore which is about 37 per cent of the total additional income.

Before proceeding further, we should mention certain complicating factors arising out of the very steep fall in prices of foodgrains since the Agricultural Labour Enquiry was conducted in 1950-51. In the first instance, it might be thought that the present fall in prices of foodgrains alone would be responsible for a considerable rise in the consumption of foodgrains by the agricultural labour families. However, as is well known, the wages and employment and hence the total income of agricultural labour families remains closely tied to the agricultural prices and it seems unlikely that there would be any material improvement in the real incomes of agricultural labour families, merely on account of the fall in agricultural prices. It should be clearly understood that in so comparing the present conditions with the conditions in 1950-51, we are leaving aside all other factors such as the development expenditure of the Five Year Plan and that we are confining our attention only to the circumstances created by the fall in prices of foodgrains. However, even supposing that the real incomes of the agricultural labour families remained more or less the same under the falling prices, the fact remains that the additional income accruing from the contemplated development expenditure, will mean a much larger real addition to their incomes now than it would under 1950-51 prices. Any adjustments to be made to our computations on this account will be purely speculative and therefore we do not hazard them. It appears to us that the above estimates of additional consumption resulting from increased income based as they are on the 1950-51 consumer data when prices were high, would give a lower limit to the increase in consumption to be expected from the same amount of additional income now when the prices are much lower. In other words, we might say that we would attain the same increase in foodgrains consumption with somewhat smaller outlay now than the one estimated on the basis of the 1950-51 consumption data.

If, as suggested above, the estimates of increased foodgrains consumption based on the 1950-51 consumer expenditure data might be considered as the lower limit to the increases that one might expect now when the prices are lower, by how much, one might ask, may we put these estimates up. As earlier stated, in the absence of

relevant data such discussion would be purely speculative. We might nevertheless attempt to give a kind of an upper limit to the increase in the foodgrains consumption by agricultural labour families one might achieve by increasing their purchasing power. The Agricultural Labour Enquiry data indicate that, under 1950-51 conditions, the income-elasticities for foodgrains in most regions wear off at the consumer expenditure level of about Rs. 250 per annum per consumption unit. Therefore, by raising the purchasing power, in terms of 1950-51 prices, beyond this limit one should not expect any substantial increase in the consumption of foodgrains by agricultural labour families. We have therefore estimated the increase in the foodgrains consumption, over its 1950-51 level, to be expected if the consumer expenditure of every agricultural labour family were raised to a minimum of Rs. 250 per annum per consumption unit. This estimate turns out to be about 1103.6 lakh maunds and as this is a kind of physical limit to the increase in the foodgrains consumption by agricultural labour families, it might be considered as upper limit to such increases irrespective of the level of foodgrains prices. With a total additional outlay of Rs. 300 crore, we might therefore expect an increase in the foodgrains consumption of agricultural labour families to lie somewhere between 900 lakh maunds and 1100 lakh maunds. With the very large fall in foodgrains prices since 1950-51, we might expect that the additional outlay of Rs. 300 crore annually, might even secure this maximum increase of about 1100 lakh maunds; in fact it is not impossible that the maximum might be attained with even somewhat smaller outlay than of Rs. 300 crore annually.

We might now briefly point out the implications of these results from the standpoint of financing the contemplated large development expenditure on labour intensive projects. If, as has been demonstrated, a considerable part of the additional income accruing to the labour families from wages earned on these development projects is spent on additional consumption of foodgrains, and to the extent that this happens, it will be possible to partly finance the development expenditure through surplus foodgrains if any are available. Thus if such surplus foodgrains are available on special terms from friendly countries, they will help to finance partly the development expenditure without affecting the internal prices of foodgrains. We might put the proposition in the form of a simple illustration. We will need a total development expenditure of about Rs. 500 crore annually, even if incurred on the most labour intensive schemes, to secure a labour component of Rs. 300 crore annually. About Rs. 100 crore of this will be spent by the wage earners on increased consumption of foodgrains. Therefore, if foodgrains of the right kind are

available as a free gift from a friendly country, they will help financing the development expenditure on labour intensive schemes to the extent of about 20 per cent of their total cost. The remaining 80 per cent must be found from elsewhere.

CHAPTER X

WELFARE OF BACKWARD CLASSES

We have so far considered the problem of employment relating to the agricultural labour families. We might now return to the problem of their living standards. As was earlier pointed out, one of the principal causes of low living among many agricultural labour families is their inadequate earner strength; or in other words the large number of dependants that their earners have to support. It is not that the ratio of dependants to earners is especially large among the agricultural labour families than among oher classes of the society. If anything, in so far as a larger number of women and children among agricultural labour families have to work and earn, the ratio of dependants to earners among them might be somewhat smaller than elsewhere. Nevertheless in the context of what they can or may earn in the immediate future, the earners in the agricultural labour families have to support an unbearable burden of dependants. Thus even if we assume that every earner were assured a minimum of Rs. 350 per annum, he would not be able to maintain more than 1.4 consumption units including himself, if a consumer expenditure of Rs. 250 per annum per consumption unit were regarded as desirable minimum. Or, on the alternative hypothesis even though each earner were assured a minimum of Rs. 300 per annum, he would not be able to support more than 1.5 consumption units including himself, if a consumption of Rs. 200 per annum per consumption unit were regarded as absolute desirable minimum. There are many agricultural labour families where an earner has to support many more than 1.4 or 1.5 consumption units, including himself. Therefore until they can be given more remunerative employment, the inadequate earnings of these families must be supplemented with sufficient social aid if they are to be provided with a minimum living standard.

Our earlier computations have shown that even if the earners of the agricultural labour families were assured a minimum of Rs. 350 per annum, in order to give these families a consumer expenditure of Rs. 250 per annum per consumption unit, they would need assistance to the tune of Rs. 457.60 crore. Or, if on the alternative hypothesis of much lower employment and living standards, if the earners were assured a minimum of Rs. 300 per annum, in order to give those families a consumer expenditure of Rs. 200 per consumption unit per annum, they would need assistance to the tune of

Rs. 293.65 crore. There are at present no general social welfare programmes in operation or contemplated in the First Five Year Plan which will enable this large amount of social aid to reach the needy families. There is however a section of the population, called the Backward Classes, which receive special attention in the Constitution and for which the Plan provides a certain amount of welfare expenditure. In this Chapter, we shall examine these welfare schemes as exemplifying the kind of social assistance programme which could possibly be adopted on a larger scale.

The Indian Constitution recognises certain tribes and castes as being backward and needing special attention for some time to bring them in line with other sections of the population. They are termed the Scheduled Tribes and Scheduled Castes respectively. In Table No. 62 is given their population in different States or groups of States according to the 1951 Census.

TABLE No. 62

Population of the Backward Classes in States (1951).

State	Total Population (Lakh)	Tribes and castes (Lakh)	Tribes and castes as per cent of total
Punjab, PEPSU. Himachal and Delhi	188.53	35.25	18.7
Rajasthan, Ajmer	159.84	20.16	12.6
Uttar Pradesh	632.16	114.79	18.2
Assam, Manipur, Tripura	103.98	25.92	24.9
West Bengal	248.10	58.62	23.6
Bihar	402.26	91.07	22.6
Orissa	146.46	55.98	38.2
Vindhya Pradesh	35.75	8.95	25.0
Madhya Bharat, Bhopal	87.91	25.73	29.3
Bombay, Saurashtra, Kutch	406.61	65.45	16.1
Madhya Pradesh	212.48	53.76	25.3
Hyderabad	186.55	31.55	16.9
Madras	570.16	91.70	16.1
Mysore, Coorg	93.04	16.71	18.0
Travancore-Cochin	92.80	8.97	9.7
All-India	3566.94	704.60	19.8

Thus, it will be seen that the largest concentration of the Scheduled Tribes and Castes lies in Orissa. Their proportion in the population is also large in the Eastern States of Assam, West Bengal and Bihar and also in the Central States of Vindhya Pradesh, Madhya Bharat and Madhya Pradesh where it is round about 25 per

cent. In the rest of India their proportion is about 16 to 18 per cent except in Travancore-Cochin where it is only 10 per cent. Thus, though these people are in relatively large numbers in the Eastern and Central India, it must be noted that they are present in fairly large numbers in almost all parts of the country. In the total population of the country, they form nearly one-fifth and number over 7 crore.

A few other classes of the population, though not yet listed in the Schedules, are not much better off and it is recognised that these also would need special attention. The First Five Year Plan makes some provision for the welfare of all Backward Classes including the Scheduled Tribes and Castes, the tribes formerly known as the "criminal tribes" and other backward classes recognised as such in different states. The states have their Five Year Plans for the welfare of these Backward Classes and their resources are supplemented by grants-in-aid from the Union Government. In Table No. 63 are shown the details of the financial provision under the Plan and progress of expenditure so far.

TABLE No. 63

Progress of expenditure on Welfare of Backward Classes.

Rs. (Lakh)

Source	1951 Plan provision	1951-52 Actual	1952-53 Actual	1953-54 Revised	1954-55 Budget
From States' provision	2388.6	325.1	390.9	474.2	627.4
From Centre's grants :					
(a) For Scheduled Tribes and Areas	1500.0	141.1	176.1	267.8	389.5
(b) For Scheduled Castes, Ex-criminal tribes and other Backward Classes	400.0	—	—	46.0	125.0
Grand total	4288.6	466.2	567.0	788.0	1141.9

Out of the Central grant of Rs. 19 crore as shown above, only Rs. 7 crore have been included in the Plan. The rest is given from the Consolidated Fund of India under Article 275(1) of the Constitution and is shown as normal expenditure. It will be seen that even supposing that the large budget provisions made for the year 1954-55 were actually spent, in the first four years of the Plan only less than Rs. 11.5 crore will have been spent out of the total Central grant provision of Rs. 19 crore. There thus remains a balance of

over Rs. 7.5 crore to be spent during the final year of the Plan, namely, during 1955-56.

Out of the States' provision of Rs. 2388.6 lakh, a total of Rs. 1817.6 lakh will have been spent during the first four years of the Plan provided the very large budget provision for 1954-55 were actually spent. This will leave a balance of only Rs. 571 lakh for the final year of the Plan. The expenditure of the States' Plan provision might therefore be regarded as satisfactory. It should be mentioned however, that the responsibility of spending the large balance from the Centre's grants provision rests with the States and that therefore they will have to have schemes worth over Rs. 13 crore for the final year.

We might examine the progress of states' expenditure on Welfare of Backward Classes by each state. In Table No. 64, we give the Plan provision for the Welfare of Backward Classes made by each state and its total expenditure in the first four years of the Plan. In doing this, we have assumed that the budget provision for 1954-55 would be more or less wholly spent. In the final column of the table, the expenditure during the four years has been expressed as percentage of the total Plan provision.

TABLE No. 64

Progress of expenditure on Welfare of Backward Classes in States.

State	1951-56 Plan provision Rs. (Lakh)	Expenditure 1951-55 Rs. (Lakh)	Expenditure as per cent of provision
Andhra	230.0	168.7	73.3
Assam	407.8	249.6	61.2
Bihar	160.0	186.5	116.6
Bombay	213.6	176.3	82.5
Madhya Pradesh	169.6	137.0	80.7
Madras	415.7	324.9	78.2
Orissa	111.3	87.1	74.3
Uttar Pradesh	300.0	229.9	76.6
West Bengal	8.3	6.7	80.7
Madhya Bharat	88.6	58.6	66.1
Mysore	106.3	77.0	72.4
PEPSU	14.3	11.0	76.9
Rajasthan	42.2	34.8	82.5
Saurashtra	24.4	9.4	38.5
Travancore-Cochin	74.0	46.9	63.4
Bhopal	5.0	3.6	72.0
Kutch	2.5	1.2	48.0
Vindhya Pradesh	15.0	7.1	47.3
Total	2388.6	1816.3	76.0

The percentage in the last column should be compared with the norm of 80 on the assumption that the total expenditure were uniformly distributed over the Plan period. It will be seen that the progress of expenditure on schemes of Backward Class Welfare is satisfactory in Bihar, Bombay, Madhya Pradesh, Madras, West Bengal and Rajasthan. In Andhra, Orissa, Uttar Pradesh, Mysore, PEPSU and Bhopal also it might be regarded as satisfactory. In the remaining states, it lags very much behind the Plan. The case of Assam is the most important where out of a large Plan provision nearly 40 per cent remains as balance to be spent during the final year.

In order to administer the programme for Welfare of Backward Classes, a separate department or unit has been established in almost every state. Tribal Advisory Councils have been set up in every state having tribal areas and also in West Bengal. The welfare schemes are of various types and an idea of their scope might be obtained from Table No. 65 showing the distribution of the development expenditure for welfare of Backward Classes, during the first three years of the Plan period in eight States namely, Bombay Madhya Pradesh, Madras, Orissa, Uttar Pradesh, Madhya Bharat, Travancore-Cochin and Bhopal.

TABLE No. 65

Expenditure on Backward Classes Welfare Schemes in 8 States Rs. (Lakh.)

Head	1951-52 Actuals	1952-53 Actuals	1953-54 Revised
Administration	7.62	7.73	9.06
Agriculture and Rural Development	7.19	8.65	12.21
Roads and Communications	0.33	1.91	1.22
Education	102.61	112.21	168.87
Medical and Public Health	10.68	12.67	9.87
Welfare Activities	2.19	4.14	0.24
Other Schemes	2.09	2.44	8.31
Total	132.71	149.75	209.78

It will appear that among the schemes for welfare of the Backward Classes, those for promoting education are the most important. Most of the remaining schemes for their welfare are indeed of a general nature such as the schemes of agricultural and rural development, and of roads and communications. They are classified under the welfare of Backward Classes probably because they are located in predominantly Backward Class areas. Even

among the schemes for promoting education, there are some in the nature of opening of new schools in Backward areas and which, therefore, could be classified as general educational schemes. The most important schemes specifically designed to promote education among the Backward Classes are those providing grant of free-studentships, scholarships and stipends to Backward Class students at all stages. This is a measure which has now been more or less universally adopted in all states. Another important scheme in the same direction is the establishment of free boardings and hostels for the Backward Class students. The progress in this respect is naturally slow and achievements, in most states, are small compared to the dimensions of the problem. Nevertheless, from the standpoint of the present study, these schemes are the most significant.

The organisation and administration of hostels for the Backward Class students is more or less the same in all states. In Bombay, the movement has made considerable progress. Therefore, for purposes of illustration, we shall describe in some detail the working of the Backward Class Hostels in Bombay. The following description is based on the Annual Administration Report of the Backward Class Department, Bombay, for the year 1952-53. It is presumed that no significant changes have occurred since then.

The Government of Bombay maintains two Backward Class Hostels for high school and college students, one in Poona and the other at Hubli with accommodation for 80 and 40 students respectively. Besides, the Backward Class students are given free admission in a number of hostels attached to Government Secondary Schools. Further, the Government encourages the District School Boards and also non-official voluntary agencies to maintain hostels for Backward Class boys and girls by giving suitable grants-in-aid.

In Table No. 66 are given a few particulars regarding the number of Backward Class hostels, number of students in them and the expenditure incurred by the Government of Bombay on them.

Government expenditure on the Backward Class students admitted free to the hostels attached to Government secondary schools is calculated, for want of information, on the basis of per student expenditure in the two Backward Class hostels run by the Government. Similarly, the number of Backward Class students in hostels run by the District School Boards is estimated on the basis of the per student government expenditure by way of grant in hostels run by voluntary agencies.

Thus the Government of Bombay spends annually nearly Rs. 15 lakh to provide free boarding to Backward Class students and

TABLE No. 66

Backward Class Hostels in Bombay State

	No. of hostels.	No. of B.C. students.	Expenditure Rs.
Government Hostels	2	113	57,529
Hostels attached to Govt. Secondary schools	—	160	81,457
Hostels run by the District School Boards	84	3373	4,58,796
Hostels run by voluntary agencies	208	6701	9,11,548
Total	294	10347	15,09,330

over 10,000 Backward Class students are benefited by this programme. Though undoubtedly this is a very commendable effort, it might help appreciating the dimensions of the problem, if we mention the number of Backward Class students in various educational institutions in Bombay State. In Table No. 67 are given the figures for the year 1952-53.

TABLE No. 67

Backward Class Students in Bombay State

	Number of Backward Class students during 1952-53.
Colleges	1,612
Secondary Schools	25,651
Primary Schools	6,65,109
Primary Training Schools	1,774
All special schools	5,564
Total	6,99,710

We shall now present a few particulars regarding the working and finance of the Backward Class hostels in Bombay, which the Director, Backward Classes Department, Government of Bombay has very kindly supplied for the purpose of the present study. Some of the details have been obtained from the annual statements of accounts of these hostels for the year 1953-54. Other details, particularly regarding the composition of food in these hostels, were obtained from them by special request.

TABLE No. 68

Backward Class Hostels in Bombay State
Distribution of expenditure and composition of income.

Food expenditure as per cent of total	No. of Hostels	Food %	Salaries etc. %	Benefits other than food %	Fuel, light rent, etc. %	Total expenditure Rs.	Govt. Grant %	Private sources %	Total income Rs.
Less than 50 %	12	43.4	21.3	21.1	14.2	233852	27.4	72.6	222594
—60 %	28	54.4	15.5	14.5	15.6	286973	37.9	62.1	319976
—70 %	58	65.8	15.1	3.8	15.3	392541	68.1	31.9	409232
—80 %	45	74.2	12.3	2.5	11.0	366387	57.0	43.0	356183
—90 %	43	85.2	6.6	1.3	6.9	341480	57.3	42.7	344985
Total	186	66.5	13.7	7.4	12.4	1621233	52.1	47.9	1652970

We were able to examine the statements of accounts for a total of 186 hostels. It appeared that while some of these hostels provided for practically nothing except free board and lodging, some others provided for some other facilities and amenities to the students. We have therefore classified these hostels according to the proportion of their total expenditure being spent on food. In Table No. 68, the hostels have been accordingly classified showing for each group the distribution of their expenditure and the composition of their receipts.

It will be seen that in the case of 146 out of the 186 hostels, the expenditure on food accounts for more than 60 per cent of their total expenditure. Any other benefits, such as books etc., that they might be giving to the students do not account for more than 2 per cent of their total expenditure. Thus nearly 80 per cent of the hostels provide practically nothing except free board and lodging. It is then noteworthy that only 60 per cent of their receipts are derived from government grants and that to the extent of nearly 40 per cent of their total receipts they depend on private charity.

Details of food expenditure were asked for six months, January-March and July-September 1954. Returns from a total of 88 hostels were received. In Table No. 69, we summarise this information. The monthly expenditure on food in these hostels varied from under Rs. 10 to Rs. 25 per student. We have therefore classified the hostels according to their monthly expenditure per student. We then show, for each group of hostels, average monthly food expenditure per student, average daily consumption of foodgrains, that is cereals and pulses, expenditure on foodgrains as per cent of the total food expenditure and finally the average monthly expenditure per student on milk and milk products.

The rates at which these hostels receive, from the government, capitation grant per student are Rs. 10 for students in lower primary stage, Rs. 11 for students in higher primary and lower secondary stage and Rs. 13 for students of the higher secondary and collegiate stage. These rates are applicable to boys. For girls, the rate is Rs. 15 per student. As a large majority of the boys are of the primary or lower secondary stage, the capitation grant is generally not more than Rs. 11 per student per month.

It will be seen that in the case of 31 out of the 88 hostels, which is more than one third of the total, the monthly expenditure per student is less than Rs. 12. In their case, expenditure on foodgrains forms more than 60 per cent of the total food expenditure. Looking at the consumption of foodgrains per day, there is some indication that the lowest two groups, with food expenditure less than Rs. 11

per student per month, probably suffer even from inadequate quantities of foodgrains. In all other cases, the supply of foodgrains seems generally adequate.

TABLE No. 69

Backward Class Hostels in Bombay State.
Particulars of expenditure on food.

Food Expenditure per student per month. Rs.	No. of Hostels.	No. of students.	Av. food expenditure per student per month Rs.	Av. consumption of foodgrains per day in oz.	Expenditure on foodgrains as per cent of total food.	Av. expenditure on milk and milk products per student per month Rs.
Less than Rs. 10	12	664	8.28	18.53	60.73	0.21
— 11	10	381	10.45	19.73	60.06	0.32
— 12	9	270	11.34	22.04	61.09	0.14
— 13	7	265	12.46	20.12	47.86	0.54
— 14	13	477	13.60	21.60	55.82	0.39
— 15	11	782	14.56	23.94	52.30	0.77
— 16	9	445	15.44	20.34	57.58	0.70
— 17	7	164	16.70	21.22	55.30	0.88
— 25	10	389	20.20	21.79	48.34	2.08

In the first three groups where the expenditure on foodgrains accounts for more than 60 per cent of the total expenditure on food, the monthly expenditure on milk and milk products is less than 4 as. Even in other cases, except in the last group, the foodgrains account for nearly 55 per cent of the food expenditure and monthly expenditure on milk and milk products is not more than Re. 1 per student. A large part of this must be for ghee, whatever its quality. It might be mentioned that the standard diet recommended by the Nutrition Advisory Committee included 10 oz. of milk and milk products. At the cheapest possible rates conceivable for good milk, this would require at least Rs. 2/8/- per student per month. It is therefore quite obvious that any milk supply, if available from any source, will be most welcome in all these hostels.

If we consider free boarding without any lodging provided, the expenditure on food should form more than 80 per cent of their total expenditure, if they are economically managed. On the other hand, if food is supplied at standards at present available in most of the Backward Class hostels, the foodgrains would account for nearly 60 per cent of the total food expenditure. Thus of the total cost of free boarding, the foodgrains would account for nearly 50 per cent,

On the other hand, if such free boarding is provided with discrimination, it might be supposed that the entire consumption in such boardings would be a net addition to the total consumption. On the analogy of the argument in the previous Chapter, we might therefore say that nearly 50 per cent of the total cost of any scheme for free boarding to poor students could be financed through supply of foodgrains if they were available free. This might be compared with the fact earlier brought out that only about 20 per cent of the total cost of labour intensive development projects and relief works could thus be financed through free supplies of foodgrains.

CHAPTER XI

REHABILITATION OF DISPLACED PERSONS

According tc the 1951 Census, the total number of displaced persons in India was 72.95 lakh, of which 47 lakh were from West Pakistan and 25.49 lakh were from East Pakistan; 46,000 displaced persons were unspecified as to their origin. Subsequently, about 6.55 lakh more arrived from East Pakistan raising the number of displaced persons from that area to roughly 32 lakh. The total expenditure incurred upto the end of March 1954 on evacuation, relief and rehabilitation of displaced persons amounted to Rs. 201.02 crore as shown in Table No. 70.

TABLE No. 70

Expenditure on rehabilitation of displaced persons.

	Rs. (Crore)
On displaced persons from West Pakistan	138.00
On displaced persons from East Pakistan	55.30
Loans by Rehabilitation Finance Administration	7.72
Total	201.02

Under the Five Year Plan, Rs. 85 crore were provided for certain programmes for the rehabilitation of displaced persons. This was exclusive of the expenditure on relief which does not form part of the Plan and which is now confined to unattached women and children and old and infirm persons and their dependents numbering about 77,000 for whom the Central Government have assumed full responsibility.

A number of displaced persons have now been settled in a few newly created townships. The Delhi School of Economics has conducted in 1952-53 a series of rehabilitation studies in these townships. At our request, the School has kindly supplied consumption data from five of such studies, namely, those at Faridabad, Nilokheri, Rajpura, Kingsway Camp and Tripura Township. In Table Nos. 71-75, we present the results.

In the data collected, the family members were classified as adults and non-adults, the latter being of age 17 and below. In pre-

senting consumption data in Table Nos. 71-75 we have converted the number of members to equivalent consumption units. For this purpose, an adult male has been taken to be one unit, an adult female to be 0.83 units and all non-adults to be 0.65 units. This is in accordance with the Lusk's co-efficients earlier referred to and the age distribution under age 17 for the North Indian population. In these Tables the families have been classified according to their consumer expenditure per consumption unit. For each group of families, we then show per consumption unit expenditure on cereals, pulses, all food items, clothing and footware and total consumer expenditure.

It will be seen that even the per consumption unit expenditure on cereals and pulses increases with increasing level of consumer expenditure. In Faridabad study the increase in the consumption of foodgrains continues right upto the highest group having a total consumer expenditure of nearly Rs. 55 per month. In Nilokheri, Rajpura, Kingsway Camp and Tripura Townships the consumption of foodgrains increases only upto the total consumer expenditure level of Rs. 30 per month. There is thus clear evidence that in all the five townships, there lived a considerable number of families who, for want of income, could not afford to eat even adequate quantities of foodgrains.

We have one more similar study, namely, the one conducted by the National Sample Survey at Faridabad in 1954. The Report has been published. In Table No. 76, we give the relevant consumption data from the Report. Here, the number of family members have not been converted into equivalent consumption units. Instead the families have been classified according to the total consumer expenditure per capita and for each group the consumer expenditure on different items has been shown on a per capita basis. Here again the evidence of increasing consumption of foodgrains in higher consumer expenditure groups is quite clear. However, as the number of members were not converted to equivalent consumption units, it is possible that a part of the apparent increase in the consumption of foodgrains was on account of the possibility that among the families with lower per capita consumer expenditure there was a larger proportion of children.

The last chapter in the NSS Report on the Survey of Faridabad township gives a comparison of the new township of displaced persons with the old Faridabad with its native population. The comparison is summed up thus: 'The people of Faridabad township, poor as they are, are generally much better off than the people of the old town in respect of education, housing and income. They have

TABLE No. 71

Rehabilitation Survey—Faridabad Township—Monthly Expenditure (Rs.) per consumption unit on main items.

Expenditure per consumption unit	Number of families	Per consumption unit expenditure (Rs.) on Cereals	Pulses	Food (total)	Clothing & footware	Total expenditure
Upto Rs. 14	21	4.42	0.68	8.38	1.42	12.27
15—19	34	5.79	0.72	12.37	1.96	17.74
20—24	50	7.10	1.05	15.84	2.25	22.54
25—29	52	7.64	1.26	18.22	2.81	27.58
30—34	46	7.85	1.40	21.44	3.14	32.02
35—39	35	8.33	1.53	23.36	3.87	36.93
40—49	28	9.02	1.26	27.13	4.36	43.54
50—59	4	9.90	1.58	32.77	6.34	55.35
Rs. 60 and above	6	8.43	2.32	39.37	8.35	69.84

TABLE No. 72

Rehabilitation Survey—Nilokheri Township—Monthly Expenditure (Rs.) per consumption unit on main items.

Expenditure per consumption unit	Number of families	Per consumption unit expenditure (Rs.) on Cereals	Pulses	Food items (total)	Clothing & footware	Total expenditure
Upto Rs. 14	13	4.18	0.70	7.88	1.26	12.56
Rs. 15—19	23	6.23	0.93	11.64	2.15	17.18
20—24	15	6.14	0.90	12.43	3.02	21.70
25—29	15	6.75	2.05	15.97	5.17	26.29
30—34	15	8.31	1.59	21.55	4.04	31.79
35—39	9	6.23	2.53	21.25	5.83	37.84
40—49	11	7.76	1.81	25.84	5.42	45.90
50—59	5	6.77	2.22	29.11	9.33	53.26
Rs. 60 and above	9	10.96	1.99	40.50	13.12	92.63

TABLE No. 73

.Rehabilitation Survey—Rajpura Township—Monthly Expenditure (Rs.) per. consumption unit on main items.

Expenditure per consumption unit	Number of families	Per consumption unit expenditure (Rs.) on Cereals Cereals	Puses	Food (total)	Clothing & footware	Total expenditure
Upto Rs. 14	36	5.17	0.61	8.57	1.78	12.64
15—19	74	6.03	0.82	11.71	2.24	17.82
20—24	98	6.38	0.86	13.68	3.12	22.36
25—29	52	7.10	1.05	16.41	4.20	27.32
30—34	38	7.24	1.29	19.15	4.14	32.25
35—39	20	5.52	1.14	20.25	4.84	37.49
40—49	17	6.72	1.48	23.21	6.91	44.88
50—59	4	9.02	1.06	30.41	7.97	52.60
Rs. 60 and above	10	6.22	1.48	47.78	10.17	88.58

TABLE No. 74

Rehabilitation Survey—Kingsway Camp—Monthly expenditure (Rs.) per consumption unit on main items.

Expenditure per consumption unit	No. of families	Per consumption unit expenditure (Rs.) on Cereals	Pulses	Food (total)	Clothing & footware	Total expenditure
upto Rs. 14	56	4.69	0.68	8.88	1.87	12.84
15—19	84	4.83	0.78	11.40	2.52	17.37
20—24	109	5.37	0.98	14.40	2.99	22.79
25—29	56	5.82	0.92	16.22	3.33	27.30
30—34	62	5.69	1.20	18.76	4.44	32.24
35—39	31	5.38	1.06	22.08	5.03	37.41
40—49	23	5.61	1.23	24.71	5.57	44.09
50—59	19	5.76	1.45	25.40	7.42	54.65
Rs. 60 and above	15	2.90	0.92	20.81	7.34	45.91

TABLE No. 75

Rehabilitation Survey—Tripura Township—Monthly expenditure (Rs.) per consumption unit on main items.

Expenditure per consumption unit	No. of families	Per consumption unit expenditure (Rs.) on Cereals	Pulses	Food (total)	Clothing & footware	Total expenditure
Upto Rs. 14	7	5.45	0.51	9.04	1.78	13.38
15—19	16	5.75	0.67	10.66	1.91	17.08
20—24	18	6.23	0.87	12.95	2.60	22.30
25—29	15	7.17	0.72	15.51	3.01	26.62
30—34	8	6.57	1.29	16.37	4.24	32.46
35—39	2	7.41	0.78	25.15	3.51	37.04
40—49	3	5.03	1.03	20.48	4.12	42.56
50—59	1	5.46	1.09	24.04	16.94	56.28
Rs. 60 and above	3	6.56	1.28	29.87	8.56	104.55

TABLE No. 76.

N.S.S. Survey of Faridabad Township (1954)—*Monthly Expenditure (Rs.) per capita on main items.*

Expenditure per capita	Number of families	Per capita unit expenditure (Rs.) on Cereals	Pulses	Food (total)	Clothing & footware	Total expenditure
Rs. 5—10	23	4.32	0.32	7.01	0.21	8.70
11—15	89	5.39	0.48	10.55	0.69	13.74
16—20	121	5.91	0.59	13.14	1.14	17.85
21—25	81	6.05	0.70	15.26	2.28	23.02
26—30	65	6.83	0.73	17.53	3.04	27.77
31—40	58	7.14	0.82	19.86	4.84	33.86
41—60	38	7.46	1.10	25.57	7.01	46.78
61 and above	25	7.68	1.19	41.16	15.17	105.61

generally a higher level of expenditure, eat better food and spend more on non-food items'. Here is summed up an important moral of the situation. Though the displaced persons, distressed by the great tragedy, must quite properly receive adequate attention, the comparison focusses attention on a long neglected fact that there live in this country large numbers, easily identifiable among the landless labour and the Backward Classes, who have never been placed in life and who for generations have been totally neglected.

CHAPTER XII

SOCIAL WELFARE

The hostels for Backward Class students sponsored or aided by Government are not the only ones of their kind. Provision of shelter and food to students has been an ancient indigenous form of charity and social welfare and there are at present scores of volunatary agencies and religious bodies who are running hostels and boardings for students. As an example we might cite the case of the Rayat Shikshan Samstha at Satara which at present runs 15 hostels and boardings attached to various primary, secondary and collegiate and training institutions it conducts. Further south, the religious heads of the Lingayat community conduct, as a mission, several schools and free boardings so that reportedly in the Karnatak districts of Bombay and in Mysore, there is a free boarding in almost every town having a high school or a college. Some of them provide both lodging and boarding while others provide only boarding. Some of them are indeed large institutions. For instance, the boarding at Siddhaganga Math near Tumkur in Mysore State supplies free food to nearly 600 students every day. It is expected and hoped that there are similar institutions in other parts of the country and that it will be possible to multiply and expand them if they are adequately aided. Such assistance has an obvious development purpose and has large possibilities. For instance, that seems to be the only way to quickly promote higher and technical education among the poor and the backward classes and if such boardings are indeed run on non-communal basis, they seem to be the surest means of developing a secular outlook in the younger generation.

Though such wholesale free boarding may not be needed by the students from urban middle classes, some wholesome supplement to their diet will have the most beneficial effect. The children in most middle class families probably have two whole meals a day but in most cases they want a third meal either in the early morning or in the afternoon. Therefore if something in the nature of snacks, such as milk and bread or bread enriched with milk powder, could be supplied in schools, it would certainly be utilised beneficially without displacing any of the present consumption. The cost of food materials such as foodgrains or milk powder will naturally form even a larger proportion of the total cost of such school feeding schemes than in the case of free boardings providing full meals. For instance, if wheat is used and distributed in the form of bread,

the cost of manufacture and distribution will not constitute more than one-third of the total cost of the scheme. The same is true of using the milk powder in the reconstituted form. Therefore nearly two-thirds of the cost of such schemes could be financed through surplus food materials if they are available on special terms.

The main difficulty in the starting of such feeding programmes is that there should be a reasonable possibility of its continuing over a sufficiently long period. With external assisance in the form of surplus foods, such guarantee would not possibly be available. Nevertheless, it seems to us that working of such schemes over even a comparatively short period of say four or five years might provide useful experience in the organisation and utility of such programmes so that later some of them could be continued as permanent measures.

A set of other social welfare programmes where the cost of food forms an important component are institutions for the poor, the disabled and for the juvenile delinquents. There are at present a large number of such institutions all over the country which for want of resources cannot at present either provide adequately for their inmates or expand their activities. As an illustration, we might give a few details of the working of similar institutions in Bombay State.

The Annual Administration Report of the Juvenile Branch for the year 1952-53 by the Chief Inspector of Certified Schools, Bombay State, notes that during the year under report there were in Bombay State 49 remand homes managed by non-official social service agencies. Further, there were 8 Certified Schools managed by Government, 19 Certified Schools managed by Private agencies and 92 other institutions, termed Fit Person Institutions, recognised as fit for the reception of children under the Bombay Children Act, 1948. By the kind permission of the Chief Inspector, we were able to secure annual statements of accounts of 21 remand homes, 9 certified schools and 29 fit person institutions. In Table No. 77, we show an analysis of their expenditure. It will be seen that about 55 per cent of the expenditure in certified schools and fit person institutions is on account of food. Naturally food accounts for a somewhat smaller proportion of the expenditure in remand homes, administration taking a larger share.

Particulars of expenditure on food were also collected by special request from a number of these institutions. Details of food expenditure were asked for six months, January-March and July-September 1954. Returns from 18 remand homes, 15 certified schools and 37 fit person institutions were received. In Table No. 78, we

TABLE No. 77

Percentage distribution of expenditure of Remand Homes, Certified Schools and Fit Person Institutions in Bombay State.

Type of Hostel	No. of Hostels	Food %	Salaries %	Benefits other than food %	Fuel, Light rent etc. %	Total Rs.
Remand Homes	21	41.89	33.86	11.30	12.95	5,20,850
Certified Schools	9	54.02	13.82	17.94	14.22	4,52,251
Fit Person Institutions	29	55.97	18.55	12.49	12.99	5,84,919
Total	59	50.70	22.29	13.67	13.34	15,58,020

TABLE No. 78

Particulars of expenditure per inmate per month on food in Remand Homes, Certified Schools and Fit Person Institutions in Bombay State.

Type of Hostel	No. of hostels	No. of inmates	Av. food expenditure per inmate per month (Rs.)	Av. consumption of foodgrains per day in oz.	Expenditure on foodgrains as per cent of total food	Av..Expenditure on milk & milk.products per inmate per month Rs.
Remand Homes	18	1277	14.17	16.29	48.43	1.37
Certified Schools	15	1816	15.97	15.64	46.34	1.92
Fit Person Institutions	37	2510	14.87	16.09	44.99	1.70

summarise the information. It will be seen that the average monthly expenditure on food is about Rs. 14 to Rs. 16 of which nearly 45 per cent is accounted by the cost of foodgrains consumed. Consumption of foodgrains is about 16 oz. per day per inmate which seems to be satisfactory. Expenditure on milk and milk products, though small, is much better than in the case of the Backward Class hostels. In the total expenditure in these institutions, foodgrains form only nearly 25 per cent as against nearly 50 per cent in the case of the Backward Class hostels. Thus though it might be possible for the existing institutions to improve their dietetic standards if adequate supplies of food are available on special terms, it seems difficult, through such aid, to multiply such institutions or to expand greatly the scope of the existing ones. It is obvious that with these institutions shortage of trained personnel, more than finance, is the chief limiting factor.

CHAPTER XIII

CONCLUDING REMARKS

The starting point of this memorandum is a recognition of the fact that there live in this country, with significant concentrations in certain regions, large sections of the population, readily identifiable among the agricultural labour and the Backward Class communities, who for want of income live on diets inadequate even in respect of their quantities of staple foodgrains. This fact, though not readily conceivable by the urban middle classes, is tacitly recognised by the rural population. The fact was indicated by the large number of diet studies conducted by various authorities in this country and is amply borne out by the extensive data from the Agricultural Labour Enquiry. Further, these data demonstrate that the families living on admittedly inadequate quantities of foodgrains do so not by choice but by the circumstance of low incomes. The memorandum then proceeds on the assumption that the providing of a minimum of living comprising no more than adequate quantities of staple foodgrains to these people must receive a high and urgent priority in any planned effort at development and welfare.

A primary cause of the low incomes of these people is of course the almost complete lack of any resources on which they could employ themselves productively. It is nevertheless a significant fact brought out by the results of the Agricultural Labour Enquiry that possession or cultivation of small holdings of land, as some of the agricultural labour families do, does not make an appreciable difference to their incomes or living standards. Therefore, whether or not they possess or cultivate small land holdings, it remains true that the only asset of the agricultural labour families is the personal labour of their working members. When this labour remains inadequately employed either because of unemployment on a number of days during the year or because of the below subsistence wages on which employment has often to be sought, there is no alternative to these families but to remain underfed.

There is ample evidence in the data furnished by the Agricultural Labour Enquiry to show the existence, in certain regions, of a considerable amount of even overt unemployment among the agricultural labour families. There is also evidence of a large amount of employment being offered and accepted on below subsistence wages. In view of the latter, no use has been made in the present

memorandum of the reported extent of overt unemployment. Instead, an attempt has been made to indicate the extent of prevailing underemployment among agricultural labour families in a more direct manner by comparing their present earnings with certain hypothetical minima.

Two hypothetical computations have been presented to show the extent of additional employment needed to give firstly a minimum of Rs. 350 and alternatively a minimum of Rs. 300 of annual earnings to each earner in agricultural labour families. The computations show that on the first hypothesis there will need to be created a total of about Rs. 300 crore worth of additional employment annually; and that on the basis of the alternative hypothesis, the additional employment necessary will be about Rs. 170 crore annually. An examination of the need for additional employment in different States shows that it is concentrated in the eastern States of Bihar and Orissa and also in all the central and southern States.

An immediate solution to this huge problem can only be found in the employment opportunities, temporary though, provided by the development projects. An examination of the First Five Year Plan from this standpoint shows that the total employment potential of the Plan with a total expenditure of about Rs. 2250 crore is not likely to be more than Rs. 400 crore worth. Assuming that the progress of the Plan keeps pace with the schedule, this employment potential is to be spread over a period of five years. It is obvious, therefore, that the tempo of the next Five Year Plan will have to be kept several times higher if any employment targets worth the name are to be attempted.

In order to have a labour component of the requisite size the Plan must obviously include a large number of labour intensive development projects. An examination of a number of labour intensive projects shows that even in the more labour intensive projects the labour component does not form more than say 60 per cent of their total costs. This means that in order to have an annual labour component worth Rs. 300 crore, the Plan must include labur intensive projects worth about Rs. 500 crore annually; or to have an annual labour component worth Rs. 170 crore, it must include labour intensive projects worth nearly Rs. 300 crore annually.

This raises the problem of finance and leads to an enquiry into the possibilities of utilising, for this purpose, world food surpluses if they are available on special terms. On the evidence that a large number of families for want of income, live on diets inadequate even in respect of the quantities of foodgrains, it seems that a considerable

part of the incomes resulting from the additional employment generated by the development expenditure, will be spent on additional consumption of foodgrains. Approximate calculations based on the income elasticities of foodgrains in different regions of the country, show that out of Rs. 300 crore of new incomes generated by additional employment, nearly Rs. 100 crore, that is nearly 33 per cent of the total, will be spent on additional consumption of foodgrains. On the alternative hypothesis of a lower employment target, it appears that out of Rs. 170 crore of new incomes, nearly Rs. 64 crore, which is about 37 per cent of the total, will be spent on additional consumption of foodgrains. If we lower the employment target still further, we might reasonably suppose that, a somewhat larger proportion of the new incomes will be spent on additional consumption of foodgrains. For instance, if we aim at development expenditure with labour component worth say about Rs. 125 crore annually, it might be reasonable to suppose that about 40 per cent of the new incomes, that is about Rs. 50 crore, will be spent on additional consumption of foodgrains. It is to this extent that the surplus foodgrains of the right kind will be able to finance the development expenditure. To sum up, an annual development expenditure of say Rs. 200 crore on labour intensive projects will have a labour component of about Rs. 125 crore worth. Out of this, when it goes to the labour families as additional incomes, about Rs. 50 crore will be spent on additional consumption of foodgrains. Hence, surplus foodgrains worth about Rs. 50 crore, if available on special terms, will be able to finance about 25 per cent of the total annual development expenditure of about Rs. 200 crore. The remaining 75 per cent must of course be found from elsewhere.

Returning to the living standards among the agricultural labour families, if we assume that a consumer expenditure of Rs. 250 per annum per consumption unit is regarded as an absolute desirable minimum, then even if a minimum of Rs. 350 of annual earning is assured to every earner, he will not be able to support adequately more than 1.4 consumption units including himself; or if under the alternative assumption of only Rs. 300 per annum per earner, the consumption standards are further lowered to only Rs. 200 per consumption unit per annum, an earner will not be able to support more than 1.5 consumption units including himself. There are many agricultural labour families where an earner not earning more than Rs. 350 or Rs. 300 per annum will have to support more than 1.4 or 1.5 consumption units including himself. Therefore until these earners can be given more remunerative employment, in order to provide their families with minimum consumption standards, their inadequate incomes will need to be supplemented with sufficient social aid.

The chief forms of social aid are unemployment benefits, benefits for old age or other disabilities and aid to support growing children. Provision of unemployment benefits is a recognition of a social waste and quite obviously it is better to provide with productive employment rather than unemployment benefits. Moreover, though in the absence of adequate employment opportunities, it will be quite proper to provide unemployment benefits, their administration will be difficult under the existing extremely irregular working conditions of agricultural labour. Benefits for old age and other disabilities, though they do mean no more than social justice, might be deemed to have little development purpose and at the present level of development, might be regarded as a social luxury. On the other hand, aid to support growing children, particularly if it is linked to education, as for instance by means of providing free boarding or lunches to school children, seems to have an immediate development purpose and may be found to possess immense possibilities.

Other social welfare programmes concern the services for the physically handicapped and the mentally ill or backward. One of the numerous causes of poverty is the existence within a family of members affected by these maladies who prove an unbearable burden on the small means of the family. An expansion of the related welfare services will therefore, besides helping the affected, help a great deal in ameliorating the conditions in these families. Correctional administration for the juvenile delinquent and the rehabilitation of the destitute and the beggar fall in the same category. In the cost of all these social services, the food of the subjects forms a large part. If therefore surplus foods are available on special terms, they will be able to finance substantially such programmes. However, as distinct from the school feeding programmes, the extension of these other welfare programmes will need, besides finance, considerable technical personnel particularly trained social and medical workers and will also involve some expansion of the police administration. Moreover, if for want of finance it later becomes necessary, the school feeding programmes may be curtailed or discontinued without great difficulty. On the other hand, once started, the discontinuance of most of the other services may prove wasteful. Thus besides the school feeding programmes there do not appear to be many forms of social services which could be quickly organised on a temporary basis so that aid might reach the needy families early.

Immediate provision of employment on one development project after another and social aid in the form of free boarding to the students are thus the two forms in which relief must reach the agricultural labour and the Backward Classes. Besides giving the much

needed relief to these people, this will enable firstly the utilisation of the vast labour resources at present being wasted and secondly will speed up the promotion of education among these people and thus facilitate their eventual withdrawal from land and habilitation in industrial occupations.

The acceptance of such responsibility and its ultimate fulfilment will be greatly facilitated if suitable forms of labour organisations are promoted among agricultural labour. We envisage for each village or each group of villages, two distinct labour co-operatives: one for the labour families having small landholdings and the other for the landless labour families. This will enable two distinct and clearly defined policies to be adopted for the two classes of agricultural labour families. It is obvious that if some of the labour families should be permanently settled on land, those with some land should be given the preference. Similarly, if some of the labour families should be permanently withdrawn from land, as they must be, the landless labour families are the obvious choice. It seems that even in those regions where the employment problem is very acute, the labour families with small land holdings might be adequately employed on land if they could be given preference when hired employment is available on other farms. The Agricultural Labour Enquiry gives a classification of the income of labour families by source, namely, from hired employment in agriculture and off agriculture, from owned land and from other sources. In Table No. 79, we show this classification for a number of States where the

TABLE No. 79

Percentage distribution of average annual income of labour families in different States in India (Agricultural Labour Enquiry).

State	Average annual income (all families)					Average annual income from land & agricultural wages per labour family with land. (Rs.)
	Total (Rs.)	Income from wages. Agricultural %	Non-agricultural %	Land %	Others %	
Bihar	534	64.1	12.1	10.7	13.1	622.55
Orissa	340	55.9	19.4	17.4	7.3	450.27
Madras	365	61.9	8.5	20.8	8.8	565.32
Mysore	396	50.9	12.3	22.1	14.7	443.12
Travancore-Cochin	541	70.9	14.2	5.5	9.4	784.91
Bombay	368	73.4	10.5	7.5	8.6	632.63
Madhya Pradesh	390	74.1	10.3	11.5	4.1	898.46
Madhya Bharat	399	53.6	16.0	12.0	18.4	694.48
Hyderabad	455	59.8	10.7	14.7	14.8	731.85

employment is acute. The income from land of course belongs to only the labour families with some land. In the last column of the Table, we show the average income to labour families with land, if in addition to the income from their lands, all wages from agricultural employment were attributed to them. It will be seen that, judged by the hypothetical standards we have earlier suggested, the average incomes from land and agricultural wages would prove adequate to labour families with land. Therefore, if the labour families with land are organised into suitable co-operatives managing their small holdings on a co-operative basis, and if they are given priority for agricultural employment on other farms, it would go a long way to settle these families more securely on land.

This will release the landless labour families from the land and a certain amount of responsibility will have to be accepted in respect of them. Firstly, they must be provided with continuous employment on a series of development projects. Organisation of this labour into suitable co-operatives will greatly facilitate their movement and employment from one project to another. As an incentive to them to organise into active co-operatives, labour so organised must be given priority of employment on all development works and failing to provide them with adequate employment, they must be given certain minimum unemployment benefits. This will make the need to create adequate employment opportunities more urgent and the society will have finally accepted the responsibility to habilitate this large section of the population which has for ever been neglected.

Continuous employment from one project to another will cut off these families from their home villages and while they lead this unsettled life, some arrangement must be made for the upbringing and education of their children. This may be done by lodging them in suitable hostels attached to schools which will greatly facilitate a planned programme for their education and training in technical skills and their eventual absorption in appropriate industrial occupations.

This brief discussion is intended to indicate no more than the general lines on which, it seems, the problem of withdrawing the landless labour families from agriculture and gradually habilitating them in suitable industrial occupations will have to be approached. It might also help to indicate the dimensions of the problem and to emphasise the need for a bold programme for an effective solution. There is no need to add that at the rate at which the population is at present growing, the problem will assume more and more serious dimensions if a bold and effective action is delayed any further.

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