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**INDIAN LABOUR
IN
PRIMARY INDUSTRIES**

By the same author :—

Agricultural Labour Conditions in Northern India.

Land and Labour in Submontane Oudh.

Natural Resources and Human Adaptation.

Primary Industries of India.

Market Reports.

Atlas of India.

INDIAN LABOUR IN PRIMARY INDUSTRIES

By

A. M. LORENZO, M.A., Ph.D. (Econ)



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To

Dr. and Mrs. J. M. Kumarappa
Who have devoted the best years of their life to
the service of the Motherland, this work is dedi-
cated; in affection and admiration.

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(Indian Labour in Primary Industries).

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Prefatory Note

The present work is a systematic survey of the welfare problems of the Indian working classes engaged in primary production. It deals with the economic factors and social forces that determine the allocation of the employable man-power in the mobilization of potential natural resources of the country; and offers a clue to the cyclic disruptions in the equilibrium of folk and work in the process of resource development and economic progress. Concurrently, therefore, this survey includes such ways and means as become imperative not only for the eradication of the evils inherent in the resource hierarchy of a vegetable civilization, but also for the economic amelioration and social regeneration of the working classes in their characteristic industrial framework.

From the point of view of the economic ways of mobilizing natural resources, the man-power engaged in primary production will comprise all working classes which are employed in such 'extractive' industries as mining, fishing, and lumbering, where man gathers resources directly from the environment; such 'genetic' industries as agriculture, plantations, and stockraising, where man brings about the production of food-stuffs and raw-materials by getting the environment to help him to raise or grow them; and such 'power' industries as the harnessing of animate and inanimate energy, where man utilizes the forces of nature as aids to production. The environmental relationship between primary industries and human

energy is immediate and direct; whilst in secondary industries which take for their raw-materials and power the products of primary industries, rather it is the economic than natural factors which govern the employment of the human element. Problems of welfare, concerning the man-power employed in primary and secondary industries emerge, therefore, from divergent planes (i. e. natural and cultural, respectively), and social endeavour in the domain of labour legislation and social reform needs to be guided by the characteristic issues involved in the reorganization of these two fundamentally distinct wings of the country's industrial structure.

In the resource hierarchy of India which is characteristic of a predominantly vegetable civilization, primary industries are the Dominants; whilst secondary industries (e. g. manufacturing, transportation, finance and commerce) are the Recessives. Since human labour and relations of production are organically related to primary industries, the problems of labour welfare will be found inextricably bound up with those of the land in the widest economic sense: one merging imperceptibly into the other. In such a geo-economic complex of natural and cultural landscapes, it is necessary that all planning for labour welfare should precede and begin with land reform. This fact coupled with the tendency to unrestrained population increase, characteristic of all vegetable civilizations, and the proportionate shrinkage in the man-land ratio in consequence, warrant drastic reforms not only in the methods and relations of primary production, but also in the relative allocation of man-power in primary and secondary industries in the country as a whole. Since India is today in the vortex of a mighty economic transition, emerg-

ing gradually from vegetable civilization to machine civilization, welfare problems of the working classes engaged in primary industries must be viewed not only as complementary tendencies of the welfare problems of workers in secondary industries, but also with a greater degree of resiliency to smoothen the process of adaptation in this period of transition.

The problems of welfare associated with the nature and technique of primary production in India would involve the adjustment of the employable man-power, both skilled and unskilled, to various types and forms of primary production, and also between primary and secondary industries in one slice of time, as between one slice of time and another, and in successive slices of time for a given economic project; the distribution of labour power, set free as a result of seasonal demand in different primary industries, from surplus areas to zones of scarcity; the regulation of hours and conditions of work for various categories of labour, and the guarantee of a minimum wage; specialized training of workers in the light of the nature of work they have to perform and the equipment they have to handle. The protection of women and children against sweating, the eradication of poverty and malnutrition, the introduction of security measures against old age and unemployment call for as immediate an attention alike of the State and the social reformers as do the problems of housing, organization of labour unions, and elaborate rehabilitation programmes for social and cultural enlightenment which are imperative for the making of better citizens and a progressive nation. Little, however, can be achieved in this direction so long as the 'laissez faire' policy of the State allows the

Indian working classes to remain in the capitalist exploitation economy where human labour is measured rather in terms of material effects produced in industry than the social values created in society.

Although the problem of primary labour has come to the forefront, yet there is hardly any subject which is treated with such indifference to the facts of the situation or to the vital issues involved. Let alone private efforts, i. e. those of the academicians, philanthropists, and social welfare agencies, even the State has failed to recognize the claims of the most important and the largest sector of the working population which is engaged in the production of foodstuffs and raw materials. In the post-war plans of economic development in India, rather unproportionately greater stress is laid on "industrial" labour welfare. Practically little reform is in the offing for the workers engaged in agriculture, plantations, mining, fishing and lumbering. The Central and Provincial Governments are perhaps not unaware of the fact that "industrial" labour is relatively a new class in India, and constitutes a small fraction of the total working population of the country. Moreover, a large majority of the factory workers are misfits and floating hands which feed the secondary industries at irregular intervals and give no stability to urban labour power. Therefore, the welfare of the working classes in secondary industries, drawn and replenished by the permanent fund and flow of manpower in primary industries, rests largely on the uplift of the latter. If the economic condition and social position of workers in primary industries are not improved as 'a priori' condition for the welfare of workers in secondary industries, neither of them can rise much. The poverty, under-employment,

unemployment, and lack of organization amongst workers in primary industries are bound to act as a deadweight, and labour unrest both in rural and urban areas of the country can hardly ever be allayed as a precursory measure to the attainment of industrial peace and economic prosperity.

It is difficult to anticipate the conditions of employment in the immediate post-war period; it will largely depend upon the nature of the schemes of labour legislation, and on the co-operation between labour and management in social welfare and security measures. Peace time labour policy must cover the entire labour front in the country, setting forth the minimum obligations of the Central and Provincial Governments with regard to employment, organization, and labour conditions. Economic justice requires the safeguarding of the rights of workers in primary industries to self-determination, collective bargaining and a living wage by the enforcement of compulsory legislation. Guarantees of right to work, minimum standards of employment, elevated plane of living, freedom of association, free general and technical education, wholesome recreations, and State insurance schemes are the first indispensable steps in the development of the charter of workers' freedom and welfare, and should be accepted as the major objective of post-war economic planning. Not until the basic human needs are fulfilled and the gulf between the employers and workers bridged by conciliation, compulsory arbitration and social legislation, can the millions of the unvocal working classes in primary industries emerge victorious out of their age-long struggle for economic freedom and social emancipation. In the absence of a State plan of ameliorating labour conditions in primary

industries in India, another phase of struggle and bitterness amongst the primary workers, similar to that of their industrial confreres, is bound to ensue, making it exceedingly difficult for the post-war economic plans to be pushed through; and the inefficiency and disorganization of workers will remain serious obstacles to industrial advancement and social progress for a long time to come.

The faint rumblings of class consciousness amongst primary workers, already audible in many parts of the country, challenge the present regime. Since the various economic and political rights are inter-dependent, the lag between political freedom and economic freedom cannot be stretched farther in view of the international consequences. Nor can the State be permitted to allow unemployment to develop unchecked or indigent standards of living to persist indefinitely. If freedom from want is the charter of freedom from political subjection, the primary working classes must forthwith be freed from the shackles of a capitalist exploitation economy which British Imperialism has left behind as a legacy of un-Christian rule in India. The tragic spectacle of a land-hungry yeomanry, sweated mining labour, and contractual semi-serf working population on plantations, supplemented by many millions of ill-employed and starving rural masses, is as economically perilous as socially disruptive. Even a cursory survey of the earnings and conditions of employment of our primary workers will convince any fair-minded statesman that the country cannot enjoy industrial peace and prosperity so long as the elementary needs of primary workers, as human beings and not merely as instruments of production, remain unsatisfied. The foundations of industrial progress accordingly rest

on increased efficiency and improved standard of living and social security for the primary working classes, and an adequately distributed purchasing power for the entire working population. To deny the primary workers essential securities, ameliorations and amenities, and opportunities to organize labour movements for expressing themselves in fruitful constructive channels, is to drive them wittingly into the fold of revolutionary communism in the country.

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14 May, 1948.

CHAPTER ONE

Allocation of the Working Classes

The total population of India on 1st March, 1941, was 388,997,955 persons.¹ Of this, roughly 171 million, or 44 per cent was the effective working population engaged in all occupations.² The relative proportion of workers in respective major occupational groups is shown below:—

Occupation	Effective Workers (Millions)	Percentage of Working Population
Agriculture (a) ...	114	66
Industry (b) ...	17	10
Trade and Transport (b) ...	14	8
Domestic Service (c) ...	12	7
Professions and Other Services ...	5	3
Miscellaneous and Unclassified ...	9	6

1. Census of India, 1941.

2. Atlas of India, Oxford Pamphlets on Indian Affairs, 1946.

(a) Denotes earners in the exploitation of vegetation and animals, i.e. production of Foodstuffs and Raw Materials.

(b) Includes small scale industries also, engaged in the preparation and supply of material substances.

(c) Includes labour unspecified.

If we take into consideration the effective working population engaged directly and indirectly in the production and supply of foodstuffs and raw materials, i. e., in primary industries and services, the ratio of effective workers to the total working population would stand somewhat as follows:—¹

Occupation	Effective Workers (Millions)	Percentage of the Working Population	Percentage of the total Indian Population
Primary Industries and Services ...	121	72	32
Secondary Industries and Services ...	50	28	12
Total ...	171	100	44

This significant change in favour of primary industries and services is due to the inclusion of workers engaged directly in cultivation, plantations, forestry, stockraising, fishing and hunting, extraction of minerals, and indirectly in power industries, processing of primary products, rural transport, and in services dealing largely with the management and organization of the production and distribution of primary resources.

MAN POWER IN PRIMARY PRODUCTION

The distribution of man-power in primary production, according to the main groups of pri-

1. This includes actual workers, and their working dependents who returned primary industries as their principal, dependent, and subsidiary occupation. (Estimates for 1941).

mary industries, will show the relative importance of livelihoods in the national economy of the country. For this purpose only actual workers, engaged directly and regularly in primary production are taken into consideration:

Industry	1941		1931	
	Million workers (a)	Percentage of total	Million workers(b)	Percentage of total
Cultivation (c)	105·8	92·5	93·0	93·2
Stockraising ...	4·2	3·6	3·5	3·5
Plantations (d)	2·3	2·0	1·9	1·9
Fishing ...	1·1	1·0	0·8	0·8
Forestry ...	0·6	0·5	0·3	0·3
Mining (e) ...	0·5	0·4	0·3	0·3
Total ...	114·5	100	99·8	100
Percentage of workers in Primary Industries to total Working Population in India:	67		64	

- (a) Estimated from Census Report 1941, Rege Labour Enquiry Committee Reports, 1946, and various unofficial statistics published by industries concerned.
- (b) Census of India, 1931, Vol. I. Part I, Subsidiary Tables, III and IV, pp. 309-314.
- (c) Lorenzo, A.M., Indian Agricultural Labour, "Commerce," Trade and Employment Supplement, December, 1946.
- (d) Includes planters, managers, clerks, and labourers employed on permanent and temporary basis. The Royal Commission on Labour in India, Chap. XIX, pp. 350-351.
- (e) Includes Workers in Indian States, and those employed in mining industries not subject to the Indian Mines Act.

Since each of the major groups of primary industries includes indefinite categories of subsidiary and dependent occupations, the number of workers engaged in these subsidiary and dependent subclasses has been ignored, but only the principal earners and their working dependents, who have returned these industries as their principal occupation are taken into account. In the above table, therefore, is shown the number of actual workers engaged in each class of primary industry as their principal occupation.

If, however, we include workers, who take to primary industries also as dependent and subsidiary occupations, the number of workers in primary industries would increase enormously. The cultivation of plantation perennial crops, for instance, occupies a mere fraction of the population concerned in primary production, barely 2 per cent, the greater part of which is engaged in the production of tea. The persons whose principal, dependent, or subsidiary occupation contributes to tea-production number about 1.5 million, and about three-fourths of them women and children. Although 260,000 odd are employed in coconut production, there is a very considerable output grown by ordinary cultivators who do not even appear at all as growers of plantation crops. Similarly, fruits, spices, and 'pan' (betel-vine) are grown in considerable quantities by cultivators who combine the cultivation of these crops with their other avocations. Stockraising apparently provides numerous dependent and subsidiary occupations which all persons—males, females and children—combine with agriculture. Moreover, certain occupations, such as fishing and poultry-farming, are those which in Hindu society are looked on askance, and

this probably tends to reduce the number of census returns very considerably. As a principal occupation, the numbers occupied in fishing and pearling run into several hundred thousand in Bengal and Madras, whilst the number of workers in maritime, lacustrine, and riverine regions, who follow fishing and hunting as their subsidiary occupation, should be many times more.

The returns for actual workers in primary industries also exclude casual workers, who feed these industries at irregular intervals. The casual and seasonal workers are usually drawn from the group "Domestic Service," or "Unspecified" classes which in normal times constitute the fund of labour supply in the country. In periods of hyperactivity or slump in primary production, this fund empties itself or gets refilled and replenished from season to season, because the exploitation of primary resources is characterized by seasonal booms and slumps, and a wide disparity in the strength of labour power engaged in consequence. There is, for example, a sympathetic rise in all primary industries with an increase in the number of workers employed in cultivation, but a corresponding decline in the number of the Unspecified and Domestic class of workers, and vice versa. The number of workers in cultivation increased from 93·0 million souls in 1931 to 105·8 million souls in 1941, or by about 13 per cent, whilst the corresponding increase in other primary industries (viz. plantations, stockraising, fishing, forestry and mining) was about 30 per cent. The number of Unspecified class of workers, during the same period declined by 53·8 per cent. Forest industries, again, employ 0·6 million workers (and their working dependents) on a permanent and regular basis, but casual em-

ployment is offered annually to another 4 million souls. Although 42 million workers are engaged in stockraising, as a whole, poultry-farming alone is capable of giving employment to 40 million souls, mostly women and child dependents, in the capacity of casual seasonal workers. Thus, if we take the number of casual workers in our estimates, along with actual workers permanently employed, and include those who follow it as subsidiary to some other occupation, no less than three-fourths of the total working population of India will be found engaged in primary industries.

RELATIVE IMPORTANCE OF PRIMARY LABOUR

Occupation	Number per 1,000 of workers engaged in Primary Production		Number of females per 1,000 males	
	1941	1931	1941	1931
Cultivation ...	938	943	403	393
Stockraising ...	37	36	200	199
Plantations ...	20	17	700	652
Forestry ...	5	4	450	457

The relative importance of primary industries is indicated by the number of workers engaged in each primary industry per 'mille' of workers engaged in all primary industries. The proportion of female workers per 'mille' male workers should

indicate the nature of operations involving special type of workers. From the above table it is noticed that cultivation and stockraising together claim between 970-980 workers per 'mille' of workers engaged in primary production, whilst the largest number of females is employed in plantations (particularly tea gardens), in forestry (lac collection and fuel gathering), and cultivation (for such operations as weeding and harvesting).¹

If we take a long range view, we find, however, that during recent decades, whilst the percentage of workers engaged in primary production to the total working population has increased, there has been a decline of the relative proportion of industrial employment, both large-scale and small-scale, as will be evident from the following table:—²

1. The number of females per 1,000 males is between 500-600 in such branches of stockraising as lac cultivation, sericulture and apiculture. Child labour is also employed seasonally in varying strengths of 50-100 per *mille* males in cultivation and plantations. The employment of children displaces male, not female labour.

If we take all primary industries, under survey, into consideration, the number per 1,000 of workers engaged in all primary industries in 1941 was as follows: Cultivation 930, stockraising 34, plantations 18, fishing 9, forestry 5, and mining 4. (The number of females per *mille* males in fishing and mining is 240 and 300 respectively).

2. Table compiled from Census Reports for 1911, 1921, 1931, part II, Statistical Tables; the Rege Labour Investigation Committee Reports, 1946; the Indian Working Class by R. K. Mukerjee, 1945, p. 2. Figures for 1941, wherever not available from the Census for 1941 or the unofficial sources, were estimated.

Occupation	(Million Souls)				Percentage Net Gain or Loss
	1911	1921	1931	1941	(1911-41)
Total Indian Population	315	319	353	389	+23·5
Working Population*...	149	146	156	171	+14·8
Primary Production ...	97	104	99	114	+17·5
Secondary Industries ...	18	16	15	17	-5·6
Percentage of workers in Primary Production to the:—					
(a) Working Population:	65·1	71·2	63·5	66·7	+ 1·6
(b) Total Population:	30·8	32·6	28·1	29·3	-1·5
Percentage of workers in Secondary Industries to the:—					
(a) Working Population:	12·0	10·9	9·6	9·9	-2·1
(b) Total Population:	5·7	5·2	4·2	4·3	-1·4

* The percentage of working population to total population was 47·3 in 1911, 45·8 in 1921, 44·2 in 1931 and 43·9 in 1941.

TENDENCIES OF EMPLOYMENT DISEQUILIBRIUM

It is noteworthy, however, that while the country's population has shown a large uninterrupted expansion during recent decades, the working population has actually declined from 47·3 per cent of the total population in 1911 to 43·9 per cent in 1941. Ghate observed that the proportion of actual workers per 1,000 of the population (between the ages of 15 and 60) capable of doing work has been falling during each successive census (i. e., from 843 in 1911 to 749 in 1931).¹ On the other hand, while the percentage of workers in primary production to the working population has slightly increased, i. e., by 1·6 during 1911-41, the percentage of workers in primary production to the total Indian population has declined by 1·5 during the said period. These tendencies indicate the growth in the number of the idle and the unemployed, and certainly to a greater extent, the growth in the number of non-working dependents, particularly in primary industries. It becomes significant, therefore, that due to an increase in the total population, without a simultaneous increase in the relative proportion of the working population, pressure on the soil (i. e. the exploitation of primary resources) has been increasing continuously during the past few years.

Moreover, the increase in the number of workers in primary production, though consistent with an increase in the working population, has been

1. "Changes in the Occupational Distribution of Population," 1940, No. 1, Studies in Indian Economics, issued by the office of the Economic Adviser to the Government of India. (The proportion of workers per 1,000 of the population between the ages 10 and 60 fell from 703 in 1911 to 616 in 1931).

also at the expense of industrial population. From 1891 to 1921 about 33 million persons were drawn from industrial occupations to agriculture.¹ Counting three dependents to every worker it would appear that 6.7 million people who were in 1921 dependent on the handicrafts, were thrown back on the soil in 1931.² Whereas the number of workers in primary production has increased by 17 million during 1931-41, it has declined by 1 million in secondary industries.³ There is nothing in the trend of the occupational distribution of our population in the twentieth century to show a corrective process counteracting the predominantly elementary (agricultural) and unbalanced life of the country. The increase in the number of large and medium industrial establishments, which has taken place during the past decade, plays a very insignificant part in view of the total volume of our working population. On the whole, therefore, these figures reflect not only the lop-sided character of our economy with too much dependence on primary industries, but the growing menace of the idle "employable" population which neither secondary industries can absorb nor can primary industries accommodate.

SUMMARY AND CONCLUSION

The broad features of the distribution of manpower in primary production may now be summarized. 'First', a preponderantly larger number of workers, out of the total working population in India, is engaged in primary production. 'Second,'

1. Balkrishna: *Industrial Decline in India*, p. 30.

2. Ghate, *op. cited*, p. 26.

3. Mukerjee: *Food Planning for 400 million*, 1938, p. 204.

the number of workers engaged in primary production has steadily increased during recent decades. 'Third,' obviously, the most important primary industry, from the point of view of the number of workers employed, is cultivation. 'Fourth,' comparatively, very rapid progress has been made in plantations and forestry, and the number of workers is increasing continuously. 'Fifth,' a slight decline in the percentage of workers, during 1931-41, engaged in cultivation, to the total workers employed in primary production, is due to the correspondingly larger increase in stockraising, plantations, fishing, forestry, and mining. The increase in the number of workers on account of the exigencies of the war has come to stay in plantations and stockraising, whilst there is noticeable a tendency of decline in the number of workers in mining and forestry in the post-war period. 'Sixth,' the number of females per 1,000 males is the highest (680) in the plantation industry, due largely to the employment of mostly women for certain specialized operations (e. g. picking of tea-leaves) on tea estates, followed by stockraising (e. g. 500-600 females per 1,000 males in cocoon reeling, lac-collecting, bee-rearing, poultry-farming, etc.), and forestry (e. g. 450 in the collection of fuel and lac). By far the largest number of children between the ages 10-17 are employed in cultivation as independent wage-earners, although in other occupations they may be found engaged as working dependents. 'Seventh,' there is great and increasing lack of an occupationally balanced population—too much emphasis being placed on primary production where overcrowding brings poverty and indebtedness in an aggravated form.

The unmistakable conclusion which emerges from the foregoing survey of the occupational

balance of population is that a lag in the proportionate increase in the working population to the total population on the one hand, and the distribution of working population in primary production and secondary industries on the other, has delayed the maximum mobilization of the natural resources of the country; with the result that there is an ever widening disparity between food and mouths, between man-power and economic-power, and between population expansion and resource manipulation, in general.

CHAPTER TWO

Agricultural Labour

India is primarily an agricultural country. The rural population is 339·2 million out of a total population of 389·9 million souls; and 114 million or 66 per cent of the working population of India (171 million) are engaged in agriculture.¹ In 1940-41 the net area sown was 214 million acres, of which about four-fifths was devoted to food crops, and one-fifth to commercial crops.² India produced 55 million tons of foodgrains, 6·2 of sugarcane, in addition to 1,066 million lb. of tobacco, 1,964 of cotton, and 3, 896 of jute.³ The mobilized resources of Indian agriculture, though varied and seemingly large, shrink in significance when we imagine that the country has to support a population of about 390 million persons, 207 million cattle, in addition to 118 million head of other livestock and 191 million poultry.⁴

Though the production of certain commercial crops is normally in surplus, there is generally food shortage for 12 per cent of the human population,⁵ and deficiency of feed-stuffs (mostly roughage) for about 78 per cent of the existing livestock popula-

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1. Census of India, 1941.
 2. The Indian Year Book, 1946-47.
 3. Atlas of India, Oxford Pamphlets on Indian Affairs, No. 16, 1943.
 4. India Livestock Statistics, 1940 (Fifth Census).
 5. "Food Supply," Oxford Pamphlets on Indian Affairs, No. 8, 1943.

tion.¹ As is natural and to be expected, India is an importer of foodstuffs from such surplus producing countries as the U. S. A., Australia, and Argentine. A land exhausted after centuries of exploitation economy and now yielding diminishing returns under the pressure of an ever-expanding population, soil impoverishment and technical limitations, India presents the picture of a vegetable civilization under subsistence economy where people, and the sub-human kingdom in their service, are mere gleaners off an exhausting land, and survive in a state of fatalistic contentment which is so proverbial of the tropical Regions of Increment.²

Naturally, the Indian agricultural landscape is different from the landscape presented by other agricultural countries of the modern world. In a subsistence economy, which aims at not efficiency of production but sufficiency of output, the organization of agricultural production is rendered unprofitable on account of such inherent evils of the system as hereditary indebtedness, sub-division of land and fragmentation of holdings, immense pressure of population on the soil, technical limitations to the proper exploitation and a wider utilization of land resources, neither variation of crops nor intensive cultivation. There is also no attempt at organizing the rural market, because, "no organization for trade and commerce could group up without the production of a surplus over the local demand and no individual, village or province, would continue to produce such a surplus in the absence of the

1. Burns, Dr.W., *Technological Possibilities of Agricultural Development in India*, 1944, p. 111. (There is shortage of concentrates for 29 per cent of the livestock population).

2. Lorenzo, A. M., "Natural Resources and Human Adaptation," 1946, p. 47.

machinery of trade and commerce essential to ensure for it a reward commensurate with the labour expended." ¹

There is a growing disparity in the man: land ratio, i. e., between food and mouths. The cultivated land (area actually sown), for instance, increased from 187 million acres in 1891 to 214 million acres in 1941, whereas the country's population rose from 285 million to 389 million during the same period. Taking 1891 as the basic year, the index of net area sown has moved up to 114 only, whereas the index of total population has gone up to 137, and that of the population dependent on agriculture to 131, during the past fifty years. It follows, therefore, that the pressure of population has increased in general, and that of the agricultural population on the net area sown in particular.

ASSESSMENT OF AGRICULTURAL LABOUR POPULATION

In 1941, the agricultural labour population of India comprising owner cultivators, tenant cultivators, farm-hands, field-workers, agricultural serfs, and unspecified class of workers, was about 106 million souls, as against 93 million in 1931, and 102 million in 1921. Of these about 30 million were women workers, and 7 million children between 10-17 age-groups. If we consider only the wage-earning class, i. e., the agricultural proletariat, with no stake in land whatsoever, 27 million farm-hands and field workers, and 13 million agricultural serfs and unspecified workers, together, will constitute the floating and landless working population in rural areas. Thus, out of a total popula-

1. Report of the Royal Commission on Indian Agriculture, 1928, p. 8.

tion of 106 million agricultural labourers, 62 per cent are actual cultivators, and 25 per cent depend upon wage labour as their principal source of livelihood.¹

In the following table are shown changes in the relative proportion of agricultural workers during the past four decades, and the percentage of the total number of agricultural labourers to the total number of workers engaged in all primary and secondary industries:—

	1911	1921	1931	1941
Total Number of Agricultural Workers (<i>Figures in millions</i>)	91	102	93	106
Percentage to total Workers in Primary Production ...	93·8	97·9	93·1	92·4
Percentage to total Working Population in India ...	65·1	69·9	59·6	62·0
Percentage to total Indian Population ...	28·9	31·9	26·3	27·2
Percentage of Industrial Workers to Agricultural Workers ...	19·7	15·6	16·2	16·0

It is noteworthy that the number of agricultural proletariat has increased steadily during past years. In 1882, the Census Report recorded 7·5 million "landless day labourers" in agriculture. This number increased to 21·6 million in 1921, and

1. Lorenzo, A. M., *Agricultural Labour Conditions in Northern India*, 1946, pp. 15-16.

27 million in 1941.¹ The growth of this class may be accounted for by the tendency towards increasing absentee landlordism and toward the expropriation of the cultivators by non-capitalistic investors and money-lenders. "Every circumstance," observes Dr. Radha Kamal Mukerjee, "which has weakened the economic position of the small holder, has increased the supply of agricultural labourers—the loss of common rights in the rural economy, the disuse of collective enterprise, the subdivision of holdings, the multiplication of rent-receivers, free mortgaging and transfer of land, and the decline of cottage industries."²

The proportion of agricultural workers (whose principal occupation was returned as wage earners in agriculture) to cultivators (both owners and tenants) has shown a steady increase as indicated by the following table:—³

		(Million Workers)		
		1921	1931	1941
Ordinary Cultivators	...	74·6	61·1	65·0
Agricultural Labourers	...	21·6	24·8	27·0
Ratio (Agricultural Labourers per mille Ordinary Cultivators)	...	291	407	415

1. Recent surveys of the strength of agricultural proletariat in Bihar, Bengal and South India: *Indian Journal of Economics*, July, 1939, pp. 94-96, 347 *et seq.*

2. *Land Problems of India*, p 215.

3. Compiled from Census Report, Vol. I, Part I, 1931, p 288; *The Indian Working Class*, Mukerjee, 1945 p. 2; and the Census Report, 1941. Figures for 1941 are based on unofficial estimates.

Besides the significant tendency of peasant proprietors losing ground to tenant cultivators, there is evident concentration of land in the hands of non-cultivating rent-receivers; whilst the chain of subinfeudation has often gone to grotesque lengths and given rise to the same abuse which are characteristic of the latifundia farming in European countries. Finally, the dislocation of rural social solidarity and the disintegration of village community life, due to the introduction of western notions of property and tenancy legislation, have produced new factors in the evolution of civic social reform and national democracy. The growing recognition of peasant organizations and the rising tide of socialistic ideas have converted the rural masses into forces actively against the traditional regime. These factors, aggravated by the increasing urban contact, have created a floating and landless class of workers which is both a social and economic menace to the rural society.

THE GROWTH OF PEASANT PROLETARIAT

Peasant proprietorship in India has declined, not merely by the decline of village communities, which have outgrown their administrative use, but also by minute fragmentation resulting inevitably from an unchecked population pressure. Owing to the free mortgage and transfer of land and the decline of subsidiary cottage industries, the peasants have been driven off the land to supplement the proceeds of their holdings by outside work, or to sell their lands to middlemen or to more prosperous peasants. In other cases they have been forced to relinquish their land to the non-agricultural classes from whom they cultivate as tenants-at-will. Consequently, land has been concentrated,

'firstly,' in the hands of large proprietors, and 'secondly,' to the detriment of the whole country, in the hands of the non-agricultural classes. In the United Provinces the non-agriculturists gained +654,000 acres whereas the agriculturists (especially Brahmans, Tagas and Bhuihars) gained only +418,000 acres between 1907-1926. The U. P. Banking Enquiry Committee in 1930 gave the figures for land concentration in the hands of non-agriculturists at +107,000 acres, and +179,000 acres by Brahmans and other agriculturists.¹ In the Punjab, during the quinquennium 1923-27, nearly 37 per cent of the vendors (owners of land) sold off the whole of their land and became landless.² The sales of land in Jessore (in Bengal) have increased by nearly 40 per cent. In Mymensingh district 25 per cent of the total agricultural area changes hands every ten years, in Jessore 15 per cent, and in Midnapure 7 per cent. In Birbhum, Murshidabad and Burdwan also a large portion of land has fallen into the hands of foreign, money-lending classes.³ In the United Provinces during 1921-31, about 60 per cent. of the transferred land had passed into the hands of non-agriculturists, who were generally the creditors of the dispossessed owners.⁴ In some parts of the rural East the invasion of the Bania, the Marwari and the Dikku has been an economic menace. These money-lenders gradually become financier-proprietors by ousting the peasants by mortgages and land alienations. Having acquired the land as a money investment

1. Report, 1930, Vol. I. p. 125.

2. "A Note on Sales of Land," 1931. (The Board of Economic Enquiry, Punjab).

3. Land Problems of India, R. Mukerjee, pp. 268-269.

4. Census of U. P., Part I, 1931, p. 47.

they seldom cultivate it by hired labour, but make the old occupancy raiyat an under-tenant who is forced to pay a produce rent irrespective of the yield. Redemptions are few. Thus, while the money-lending classes seldom lose a favourable opportunity of gaining land by loan-investments, the peasantry becomes indolent, litigious and impoverished, and gradually vanishes struggling impotently to regain its usurped crown.

Equally disastrous have been the results of the transfer of land among the agricultural classes. Small owners have to an appreciable extent been bought out by large land-owners. Even where the small owners have sold to small owners and the big owners to big owners, the tendency of concentration on the one hand, and expropriation of the peasant proprietors on the other, is not insignificant. In the United Provinces 40 per cent of the transferred land has passed on to other agriculturists notably the Rajputs and Muslims. The dispossessed land-owners who belonged to higher castes are usually the poor type of cultivators. In 1928, in the Punjab, the total number of owners with holdings of one acre or less was 625,400 of cultivators in the same class—the difference accounting for over one-third of the landless cultivators.¹ The increase in the number of farm-hands and field-workers from 291 to 407 per 'mille' cultivators during 1921-31, without a corresponding increase in the actual holders of land, whether as tenants or farm-hands, is sufficient explanation for the large increase in the landless class.² The strength of the landless field-workers has grown

1. "Size and Distribution of Cultivators' Holdings, Calvert, p. 8.

2. Census of India, 1931, Vol. I, Pt. I, para 124.

immensely during the past decades. There are at present 26,925,357 hired agricultural workers who have no interest in land even as tenant cultivators. Including the number of unspecified labourers, who constitute an important fund of labour for agriculture, the number of landless workers will swell to 39,703,999. If by 'landless' is meant the absence of ownership, no less than 74,877,903 peasants were found in 1941, constituting more than two-thirds of the labour population engaged in cultivation. Even if we were to assume that these tenant cultivators will mostly become cultivating owners as a result of the establishment of permanency of tenure for them we find that more than one-third of the total number of agricultural labourers are landless workers having no greater stake in the land than their meagre and insufficient wages. ¹

1 Mukerjee, R. K., *Economic Problems of Modern India*, 1939 Vol I, p. 42. "One of the factors, that has contributed to the growth of an increasing class of landless labourers, is the economic transition through which some of the criminal tribes and castes of India are passing. Many of them have sought refuge in jungles and foothills. In some tribal areas the original tribal system was one of a village headman and ryotwari tenure. Under the land revenue policy of the British Government, a limited number of persons were given proprietary rights. These rights were gradually lost as money-lenders and traders exploited the ignorance and improvidence of these primitive people. Most of them were converted from tenants into landless labourers. This has happened to the Gonds in the C. P., the Bhils in Central India, the Korwas in the U. P., and the Mundas in Chota Nagpur." (Wadia and Merchant, "Our Economic Problem," 1943, pp. 250-51).

THE UNSPECIFIED WORKING CLASS

The growth of the unspecified class, as distinguished from ordinary field-workers and farm-hands, presents new problems in the organization of agricultural workers in India. The relative figures of unspecified workers in general, and agricultural labourers in particular, serve to some extent as an index to the prosperity of agriculture. This class is of recent growth and its number fluctuates with agricultural seasons, because fairly large numbers work as field-workers as occasion offers.

The demand and supply of unspecified workers is very largely regulated by seasons. During the sowing and harvesting seasons openings for them are fairly plentiful when the demand for and the price of agricultural labour rises. On an average, their labour on the fields is required for not more than three months; therefore, for nine months in the year they keep on the move in search of employment in urban industries. If the census were to be held in July, November or March, a large number of persons would be shown as agricultural labourers, but if it were taken in May and June the ranks of agricultural labourers would be thinned out proportionately in favour of the unspecified class.

The sudden increase of non-cultivating rent-receivers is responsible for excessive subletting, especially in the permanently settled areas where sub-infeudation has grown to a far-reaching degree. In such cases the sub-tenants, with faint hope of rising in prosperity, are enlisted only among the unsettled raiyats, temporary and seasonal, but they do not altogether give up their former occupation in suburban mills, mines, and forests, and adopt agriculture only as a subsidiary means of livelihood.

This class of sub-tenants is always unsettled, and although one member of the family may permanently look after the family holding, the rest of the members (of both sexes) move about in the capacity of unspecified workers—unskilled, seasonal, and unorganized.

The variation in the number of unspecified workers has to be examined along with the number of the agricultural workers and ordinary cultivators, because each class feeds the other at different intervals. The percentage variations in the numerical strength of these working classes are given in the table below:—

		Percentage Variation During the Decade		
		1911-21	1921-31	1931-41
Ordinary Cultivators	...	+ 12·7	— 18·0	+ 6·5
Agricultural Workers	...	— 8·1	+ 2·2	+ 12·5
Workmen Unspecified	...	+ 12·4	+ 30·8	— 53·8

During 1911-21 the increase in the number of ordinary cultivators was due to the decrease in the number of field-labourers, but the increase in the unspecified class was attributed to certain sections of the rural population abandoning their hereditary industrial pursuits in the face of machine competition. During the next decade, 1921-31, the decrease in the number of cultivators was due chiefly to the

1. "Agricultural Workers in India," by A.M. Lorenzo, in the Indian Journal of Social Work, March, 1945. (The term Agricultural Worker here indicates the wage-earning class only).

disappearance of owner-cultivators, marginal tenants, and farm-hands who had set up during the period of agricultural boom in the post-war I period (1914-20). This floating population, expelled from actual cultivation, plus a sufficiently large number of dependants who found no avenues of employment, accounts for the swelling in the rank of the unspecified workers. The decline in the number of the unspecified class, during 1931-41, however, is reflected by an apparent increase in the number of ordinary cultivators and field-workers. Higher agricultural prices, resulting in increased prosperity of the agriculturists, a general rise in the wage-level in rural areas, and the "grow-more-food" campaign in the opening years of the second global war, induced many unemployed and ill-employed hands to settle down as tenants-at-will, market-gardeners, and field-workers. At the close of the war (1945) there were further gains to agriculture owing to the closing down of war-time industries, marginal and strategic mining, and defence services, and the agricultural working classes reached a record level of about 110 million souls. In view of the recurring food shortage, the demand for raw materials, and the impending programmes of expansion and development in all fields of agriculture, it is not likely that the agricultural industry will shed its war-time gain in labour power in the immediate future.

THE MYTH OF THE INDIAN INDUSTRIAL WORKING CLASS

Industrial labour is relatively a new working class in India and constitutes a very small fraction of the total working population. A large majority of the industrial workers are misfits and floating

farm hands which feed industrial establishments at irregular intervals and give no stability to industrial labour power. Unlike the industrial working class in England or the U. S. A., there is no industrial working class as such in India. It represents merely a vacuum in the rural economy of the country.

The factory workers in the western countries represent a permanent wage-earning class completely divorced from the land. They are born in urban industrial centres, and their early upbringing in a factory environment stamps upon them a typical industrial outlook on life. The Indian industrial working class is a migratory current of the floating rural "employable" population, pushed to urban industrial centres due to the seasonal nature of the agricultural industry. The Indian industrial worker is born in the village, and is not only attached to the ancestral land but inseparable from the joint family and the joint ownership of property. His early upbringing in the rural atmosphere makes it difficult for him to adapt to a purely industrial milieu which, with all its evils of urbanity, looks a repulsive world to the rural mind. The exodus of agricultural workers to urban industries is forced by economic duress, such as low wages, pressure of population, uneconomic holdings, and financial disasters caused by failures of agricultural enterprise. In the last analysis, the rural workers are pushed, not pulled, to the urban factory industries.

Statistics in respect of the permanent labour force in all industrial towns of India are not available, but certain unofficial investigations throw some light on this problem. It is estimated that 20-25 per cent of the industrial working class population are permanent in such centres as Ahmedabad, Kanpur, Nagpur and Madras. The

largest proportion of industrial workers permanently resident is found in Jamshedpur (39 per cent), but since ninety-five per cent of the total labour power here is immigrant, recruited from distant provinces, the migrant character of the working population is brought out with greater emphasis. A recent survey disclosed that in the Jamshedpur industries 23 per cent of the migrant workers do not visit their homes in rural areas at all, 19 per cent visit once in three years or at longer intervals, whilst others visit annually or biennially. In the mining industries of Bihar the labour force employed is largely seasonal and casual, drawn from the suburban agricultural zones of the province or from other provinces, and the permanent residents are too few to number. Therefore the Indian industrial workers do not represent a wage earning class permanently resident in industrial centres. On an average not more than 20 per cent are permanent residents, whilst 80 per cent constitute the floating fund of rural workers employed in factory industries only temporarily.

In 1941, out of 114·5 million workers engaged in Primary Industries, 105·8 million workers or about 92·4 per cent were engaged in pure agriculture (i. e. cultivation of annuals). The number of workers engaged in secondary Industries, during the same period, was about 3 million. The effective working population engaged in pure agriculture and pure industry (manufacturing) offers a convenient basis of comparison, the ratios being 35:1 and the percentages to the total working population approximately over 62 and below 2 respectively. Since on an average, not more than one-fifth of the industrial workers in India are permanent residents in industrial towns and cities, only about 0·4 per cent of the total working popu-

lation of India can be labeled a typical Industrial Working Class. These observations press home the fact that the workers engaged in cultivation represent preponderantly the largest single group amongst the working classes of India. Factory labour, relatively, is so insignificant as to be considered a myth only.

THE NEXUS OF INDIAN AGRICULTURAL LABOUR ECONOMY

The outstanding fact which emerges out of the foregoing survey of India's working population is the enormous strength of agricultural labourers and the microscopic position of workers engaged in any other individual industry. Whilst the percentage of agricultural labourers to the total working population in India is 62, that of industrial labour falls below 2, and that of the rest of primary industries (viz. plantations, mining, fishing, forestry, stockraising, etc.) aggregates 5 only. In such a background the need for the evolution of a planned economy for agricultural labourers can hardly be overemphasized.¹

In a predominantly vegetable civilization, which is just emerging into a machine civilization, agriculture remains the 'dominant' industry with manufacturing, transportation and commerce as 'recessives.' Plantations comprise the intermediate peripheral industry. Both agriculture and plantation industries are organically related to human labour. Since agricultural labour is inextricably bound up with land, the problems of labour are rooted deep into land problems of India, and planning for agricultural workers, therefore, has

1. "Agricultural Workers in India," Trade and Employment Supplement, Commerce, December, 1946,

to begin with land reform.

From times immemorial, India has followed a subsistence economy which aimed at not efficiency of production but sufficiency of output. The characteristics of this system of agricultural production were an immense pressure of population on agricultural resources, and a greater scramble for land; an excessive sub-division of holdings, limiting the proper utilization of land resources; and the restricted mechanization of cultivation, rendering the processes of production slow and the enterprise unprofitable. The combined effect of these features on the agrarian economy of India has been reflected not merely by the stagnation of agricultural industry in general, but also by the retrogression in the economic standard of living of agricultural workers in particular.

The economic nexus of agricultural labour problems in modern times cannot be confined to a given region. It must emphasize not only the inter-spatial relativity of economic institutions in the country as a whole, but also the inter-temporal relativity in the general scheme of national economic development. Obviously then, the problem before the country is not that of zonal or regional planning for the economic, technical, and social progress of agricultural labourers which might again lead to zones of economic rigidities, but the dissolution of the existing zones of economic self-sufficiency and agricultural distress with the least possible disturbance to the prevalent cultural and social structures.¹

1. Ramaswamy, T. N., "The Economic Nexus in India," in *The Economic Problem of India*, 1942, p. 116.

MISADVENTURES IN AGRARIAN REFORM

Unfortunately all agrarian reform in India in the past has suffered from a narrow and provincial outlook. A local policy, which is often tentative and of the nature of a compromise between the Government and the agriculturists, rather weakens the execution of planned legislation than it fosters a stable organization for a universal system of economic amelioration and social rehabilitation. Though the evolution of land reforms and labour policies is the result of the characteristic needs of a particular region and a specified branch of agriculture, the economic progress of the country as a whole demands the introduction of a common feature into the land policy of the different Provinces and States in respect of the protection of the actual tillers of the soil whether they are peasant proprietors, tenant cultivators, cultivating partners below the legal tenancy line, or again the landless floating farm-hands and the toiling serfs.

An examination of the changes in landownership and tenancy during the past fifty years will show that the agricultural population of India works on very meagre and ill-distributed resources. The economic position of the small holder has deteriorated, while the contrast between the landlords and expropriated peasants, between the increasing class of rent-receivers and the toiling agricultural serfs has grown considerably. The uneconomic holding, the absence of full proprietorship of the cultivators, the existence of subinfeudatories, and the employment of semi-slave labour, are incompatible with the efficient working of a peasant economy. Tenancy legislation in Bengal, the United Provinces and the Central Provinces has failed to correct these mistakes. Occupancy

right has been bestowed, but the classification of tenants into occupancy and non-occupancy has been nowhere a sufficient protection against enhancement of rents or even eviction. The great mistake of tenancy reform has been that the right it created depended upon a time-limit, and therefore upon the forbearance of the superior proprietor to exercise his power of eviction before it matured. Hence the right came to be sold and purchased, and the superior proprietor, and sometimes the surrendering tenant as well, took advantage of the situation, and extorted some profit from the transaction. In several provinces the increase of population and competition for holdings have aggravated the evil.

The system of taking premiums from the tenants has prevailed in India because of the creation of permanent heritable rights. Transfer of tenants' holdings is as a rule reorganized on payment of premium, which is sometimes based on the purchase price or the rent. Not unoften the law regarding enhancement of rent is evaded. The practice of levying 'Nazrana,' in essence, is the capitalization of the increased rent. Freedom of subletting, on the other hand, has converted not merely occupancy tenant in Bengal, but also the peasant proprietor in many parts of the Punjab and the Madras Presidency, into a rent-receiver, an inferior absentee proprietor living on rent or a share of the produce. About half the total cultivated area in the Punjab is cultivated by the tenant, and of the rented area more than two-thirds is on the share-produce system. On the other hand, it is the inferior classes of unprotected tenants who not only pay much higher rents than the superior tenants, but also rent smaller-sized holdings and, having little security, pay higher rates of interest

for agricultural capital.

Throughout the northern provinces of India the money-lenders aspire to become small landlords, and seek to buy out the original raiyats. Some of them cultivate land on their own account by means of hired labour, but a great majority lease the holdings on share agreements. The exact legal status of such 'metayers,' whether as tenants or labourers, has hardly been defined. In order to maintain an artificially high standard of living, not warranted by their small income, these landlords resort to such evil practices as periodical enhancement of rent, exaction of illegal dues ('Abwabs' and 'Rukumats'), and the calling of forced labour ('Begar'). It is these landlords who are credited with the employment of agrestic serfs—a class of landless workers bound hand and foot in ancestral debt and pledged for service to their masters just on a pittance or dole of food. Evils of this type have not been combated as yet by legislation.

The creation of latifundia estates, due to the concentration of agricultural land in the hands of non-cultivating rent-receivers, and the consequent weakening of the peasant proprietors, has led not merely to the minimum amount of agricultural resource utilization but to the growth of the landless and unspecified workmen which find no stable adjustment in the rural economy of the country. In fact, the main cause of agrarian unsettlement in India is the growth of this large volume of floating rural population which tenancy legislation has failed to check or recreate into peasant proprietors. It has been estimated that about two-thirds of the total available labour population engaged in cultivation has become landless in India. This floating population drifts continuously between villages and industrial centres, and not only causes unrest

in cities but is the chief obstacle to measures of civic social improvement in the villages.

These drawbacks and deficiencies of peasant farming on the one hand, and of absentee landlordism on the other, have been aggravated both by the importation of English notions of property in tenancy legislation and the application of capitalist principles of exploitation economy to the socialized agrarian institutions of India. The transformation of the relations of the agrarian population, in complete disregard of the old-established practices of ancient village communities, has not merely created new categories of proletariat labour characteristic of latifundia type of farming in European countries, but spelled disaster in all branches of agricultural production. The land and village systems and forms of tenure in India originated in response to the requirements of village communities. Modern tenancy legislation has disrupted these village communal organizations. It has produced a land-hungry peasantry and placed unsurmountable obstacles in the automatic adjustment of economic functionaries. The disuse of equitable regulations as regards meadows, pasture-grounds, tanks, and irrigation channels, and the dispersion of the supply of free labour for common agricultural tasks which formerly was facilitated by the associated life of the village communities, have weakened the rural economy to an extent which neither new habits inculcated by education nor the conventional measures of governments can cure.

These observations lead to one conclusion that recent agrarian reform in India was throughout misconceived and ill-applied. Not only that it did not give adequate protection to peasant proprietors but failed to check the exploitation of the hired labourers and the landless serfs.

**PROBLEMS OF SOCIO-ECONOMIC RELATIONSHIP
AND THEIR REMEDIES**

In evolving plans of agricultural development, the economists and statesmen have alike realized the fact that no economic system can work efficiently unless and until the present age can be analysed and understood in terms of the events and conditions peculiar to itself. The question is not what one would wish to happen, but what history will permit to happen, and which tendencies in the present evolutionary stage are destined to develop and which to perish. The problem, therefore, facing the practical statesmen is not one of finding how an agrarian policy ought to work, but essentially of devising a methodology and machinery by which a scheme 'will' and 'must' work under the strain and stress of rapidly changing economic and social conditions in the country.

Problems of socio-economic nature, involved in a scheme of planning for agricultural labour, would be the redistribution of surplus labour power in various peacetime industries, the regulation of hours and conditions of work for different categories of labour, specialized training in accordance with the equipment they have to handle and the work they have to perform. The protection of woman and child labour against sweating, the abolition of agrestic serfdom, and the commutation of forced labour call for immediate attention. The poverty of the Indian agricultural working classes, the crushing load of indebtedness, and the starvation level of existence reflect in a large measure the vicious circle from which tenancy legislation affords no escape and offers no effective relief. Temporary relief by moratorium or takavi loans is a palliative and not a cure. ^s The

economic status of agricultural workers, judged by the amount of wealth and sources of income, social position and the mode of living, is indeed a matter of concern both for the statesmen and social reformers.

There is no denying the fact that the wealth and income of the rural working classes are for the most part lower than those of their industrial confreres. Though rural wealth is more evenly distributed, and there are no great contrasts of the exceedingly rich and exceedingly poor individuals, the level of incomes is, in general, on par with the basic expenditures for bare existence. Our investigations in several parts of the country have shown that the proportion of the budget used for non-physiological expenses averages less in the country than in the city; hence the proportion of the budget expended for items of current consumption, other than the so-called basic requirements, is the best index of the higher level of living in urban areas. The average rate of wages of unskilled industrial workers in the U. P. before the outbreak of the second World War was Rs. 18 per month, whilst it was only Rs. 8 per month for unskilled agricultural workers. There is also a wide disparity in rural and urban incomes in Bombay, Bengal and the Punjab.¹ Moreover, the size of the family also tends to reduce the amount of spendable income per adult unit in the rural family. The average number of children per family in India is 4·2 against 4·4 in rural families and 4·1 in urban families; and the proportion of the total number of children surviving, per 'mille' born, is appreciably higher in rural areas, i. e. 702 against 695 in urban areas. The ultimate result of this growth of

1. Land Problems of India, op. cit. pp. 21⁹-225.

dependents is that the proportion of the budget expended for items of basic necessities is increased at the expense of non-physiological needs. Thus a lower income, a larger size of family, and a growing number of non-working dependents in rural working-class families tend to keep their standard of living on a very low level.¹ Our studies have further disclosed that a large majority of agricultural labourers all over the country cannot afford to consume energizing foods. Most of them live in indigence and suffer from malnutrition and ill-health due to a deficient protein intake. The effective consumption of energizing foods in the case of field-workers in the U. P, hardly exceeds 18 per cent of the total amount of food consumed, while it is almost 'nil' in the case of agricultural serfs like the 'Sewaks' of Oudh and the 'Kamias' of Chota Nagpur.

There appears a colossal under-employment in rural areas, a progressive subdivision and fragmentation of agricultural holdings, and a rapid growth of the landless working class. In the Punjab, for instance, Calvert found that 55·8 per cent of the total holdings were below 5 acres, 33·3 per cent between 5 and 1, and 22·5 per cent below 1 acre. In Bombay 60 per cent of the holdings were below 5 acres, and 81 per cent of the holdings could not maintain their owners under the most favourable circumstances.³ In Bengal, the percentage of families holding 2 acres or less is 41·9, whilst the average area per head of the agricultural population

1. Ahmed, Z. A., *The Agrarian Problem in India*, 1938, pp. 13-18.

2. "Size of Holdings," Board of Economic Enquiry Publication, Punjab, p. 8.

3. "Land and Labour in a Deccan Village," Mann, H. H., 1917, Vol. I, p. 46.

in Madras is slightly less than 1 acre.' In the U. P. about 70 per cent of the total holdings are below 5 acres, and in parts of certain districts, such as Gorakhpur and Bahraich, the average holding is 0.94 and 0.52 of an acre. From a survey of village Sheikhdhir (Bahraich, U. P.) it was found that 55 per cent of the cultivators' holdings were fragmented into 1 to 6 plots, 27 per cent into 7 to 12 plots, and 18 per cent into 16 to 50 plots—the plots being scattered within an area of 4,750 square acres; whilst in village Madhoreti an Ahir market-gardener held two plots, 151 sq. yards and 335 sq. yards, lying about 400 and 850 yards respectively in opposite directions from his homestead.²

These under-sized and scattered holdings, have considerably reduced the returns from cultivation and lowered the standard of living of the cultivators. It becomes difficult to introduce improvements in agricultural technique, to watch crops in an adequate manner, to avoid wastage of labour power, to afford irrigation and to employ mechanical tillage implements. Therefore, a low standard is set of agricultural methods and of agricultural results and a serious impediment is presented to agricultural progress. No effective improvement can take place in Indian agriculture until the problems connected with the sub-division and fragmentation of holdings come up for consideration. In order, therefore, to evolve a comprehensive plan of crop production and soil conservation, the determination of an optimum unit of land cultivation is 'a priori' consideration. This would require

1. Report of the Land Revenue Commission, Bengal, 1940, Vol. I, p. 86 and Vol. II, p. 30.

2. Land and Labour in Submontane Oudh, Lorenzo A. M., 1932, pp. 6-8.

drastic land reform, and redistribution of agricultural land by voluntary or even legislative action. The fixing of optimum holding by legislation, the consolidation of uneconomic holdings by persuasion, and the introduction of co-operative or joint farming, under State initiative and direction, are urgently called for.

The life of an average cultivator in India is proverbially a ceaseless struggle to eke out a miserable existence from an uneconomic holding. It is estimated that only about one-third of the total number of cultivators are found on a normally good plane of living, whilst the rest live in indigence and have very little capital, if any, to finance their occupation.¹ With an average holding of 2·6 acres (probably the smallest unit of cultivation in the world), primitive technique and absence of scientific aids to cultivation, and considerable wastage of labour power, agriculture in India cannot be called a prosperous industry. When allowance is made for wages on the labour put in by the farmer's family and interest on such investments as the farmer possesses in the shape of land, livestock and other equipment owned by himself, the element of 'net profit' often reveals itself as a minus item.² Thus in the Bombay Presidency a survey of farm business in 39 villages revealed that the farm income per farmer during the year under survey amounted to Rs. 88; but if interest is allowed at 3 per cent per annum on the total capital investment and if the wage of family labour is calculated at Rs. 9 per month per adult worker, the net result for the average farm business is a loss

1. Shah, B. K., *India Tomorrow*, 1944, p. 64.

2. Balasubramanian, V., "A Policy for Agriculture," *India and the World Series*, No. 3, 1945, p. 5.

for the year of Rs. 99.1 In the Punjab, a summary report of the accounts of 29 holdings in 1938-39 shows that, when we take into consideration the rent that would be paid for the land owned and the wages of family workers, as well as interest on borrowed capital or on investments by the owner, there is no net income on the working of the farms.² An inquiry into the costs and profits of cultivation of 122 cultivators in 13 typical villages in the U. P. revealed that 28 per cent of the holdings were below the economic size, that 37.7 per cent of the cultivators do not earn any profits, and seek to improve their position by agricultural labour, and that 93 per cent of the families do not even have the bare necessities of life.³ In South India, a survey of 5 villages showed that almost the entire income of the working classes was wiped out by expenditure on bare necessities, and that no provision can be made for the repayment of debt and interest thereon, replacement of stock and equipment, and contingencies.⁴ Conditions in other parts of the country are no better. The cumulative evidence supplied by these surveys proves that the majority of our agricultural working classes live far below a subsistence standard. With 66 per cent (14 million) of the total working population (171 million) engaged in agriculture, and contributing less than 38 per cent of the national dividend, one expects a sad commentary

1. Gadgil, D. R., and Gadgil, V. R., "A Survey of Farm Business in Wai Taluka, 1940, Table 19, p. 89.

2. Singh, L., and Singh, A., "Farm Accounts in the Punjab," 1938-39, Board of Eco. Enq. Punjab No. 75, 1941.

3. Mukerjee, R. K., *Economic Problems of Modern India*, Vol. I, p. 117.

4. Thomas and Ramkrishnan, "South Indian Villages—A Resurvey," 1940, p. 395.

on the capacity and ability of the peoples of India.

In order to make agriculture a prosperous and profitable industry, and to maintain a balance between folk and work, the maximum practicable diversification of agricultural production is desirable. The development and expansion of mixed farming and subsidiary industries in rural areas call for immediate attention. The adoption of mixed farming, particularly in the direction of a coalescence of crop and livestock production, must be beneficial in raising the standard of living of the cultivator, in establishing the security and fertility of his soil, and in augmenting the quality, variety, and nutritive value of food supplies in the country in general. Mixed farming, leading inevitably to the development of such subsidiary industries as rural dairying, tapping of incidental plantation and minor forest resources, fishing and poultry-farming, sericulture and apiculture, and cottage manufacture of goods from organic raw materials (both of vegetable and animal origin), would not only increase the income from land resources and stabilize agriculture, but also provide full employment to the farmer and his family.¹

All measures needed to stimulate and encourage the development of mixed farming in India should be planned on a regional and scientific basis. Much intensive research work on the economic and technique of such multi-purpose mixed-farming systems, suited to differing localities, is undoubtedly necessary, and the existing Government Farms and Research Stations should be able to collect valuable and much wanted data for their

1. "Economic Advantages of Mixed Farming," *Indian Farming*, November, 1940.

own areas of operation. To overcome the difficulty of initial capital outlay, which would generally be beyond the means of the average cultivator, the establishment of Mixed Farming Co-operative Financing Agency in each district or a compact rural area, or Multi-Purpose Co-operative Society would be desirable. The wider adoption of carefully planned mixed farming systems is essential to the attainment of agricultural stability and economic prosperity of the rural masses, and it is necessary that the Provincial and State Governments should take initiative and adopt effective measures to achieve these objectives.

The growth of rural indebtedness, widespread poverty and malnutrition are striking illustrations of the extent to which agriculture has become unproductive and unremunerative. That the volume of agricultural indebtedness in India has grown in recent years is pointed out by various investigators, both official and private, on the basis of statistical enquiries in typical areas. The Central Banking Enquiry Committee in 1931 estimated the volume of agricultural indebtedness at Rs. 900 crores, while non-official estimates placed it at Rs. 1,200 crores in 1939¹. Though a small part of this debt might have been shed during the war period (1939-45), but the bulk of it still weighs crushingly upon a war-broken economy of rural India. Rural indebtedness as a deeply rooted disease has yet hardly been cured, and the legislative measures of the Provincial Governments, such as the scaling down of debt, relief by moratorium, restriction of the activities of money lenders, fixation of a maximum rate of interest, etc., have been

1: "Rural Indebtedness," by P. J. Thomas, in *Economic Problems of Modern India*, 1934. Vol. I, p. 176.

only a palliative. Only effective co-operative movement, backed fully with financial resources of the nation and infused with the spirit of mutual help and sacrifice, can deliver the agriculturists from the scourge of hereditary indebtedness. But, co-operative effort must be supplemented by land reform and general economic development of the countryside. A manysided and comprehensive reconstruction of agricultural industry, with a view to increasing and stabilizing the income of the agricultural population, offers a reasonable hope of effectively solving the problem of rural indebtedness.

In ensuring prosperity in agricultural industry, the State has yet another function to discharge, namely, the stabilization of agricultural income and the maintenance of an effective domestic market for the profitable disposal of agricultural products. This can best be done by stabilizing agricultural prices, both of agricultural crops and animal husbandry produce, so that a profit margin may be restored to the producer and an effective market assured. Such a measure is bound to increase the purchasing power of the agriculturists appreciably. But, the purchasing power of non-agricultural classes, who are consumers of foodstuffs and raw materials, should also be increased alongside through intensive all-round economic development of the country. The raising of the consumers' purchasing power in general is a pre-requisite measure for the stabilization of agricultural prices, because, in an expanding economy of the country, the bearing of industrial development on the demand for agricultural raw materials will then be readily appreciated.

The stabilization of agricultural prices, resulting inevitably in increased production, can become

effective only when the producer finds a regulated and controlled market for the profitable disposal of his produce. The value of the total agricultural produce in 1941 was estimated at about Rs. 2,000 crores, or four-fifths of the total value of home trade, and about six times the value of foreign trade.¹ In view of the fact that India itself is the main market for its agricultural produce, the problem of agricultural marketing becomes all the more important.²

One of the most disquieting features of the rural economy of India is the growth in the number of the agricultural proletariat. These landless workers have multiplied steadily during recent decades, i. e. from 7.5 million in 1882 to 27 million in 1941, due largely to the growth of absentee landlordism, the expropriation of the peasants by non-capitalistic investors and money lenders, and the increasing pressure of non-working dependents on contracting agricultural holdings. This growing volume of landless field-workers, reinforced by another 5 million agrestic serfs and 8 million unspecified labourers, constitutes a floating 'employable' population which causes considerable unrest in rural areas.³ Bound hand and foot in ancestral debt, the landless workers exist on starvation wages, which range from annas 8 to 12 per diem, in working seasons only, in different parts of the country. They are often allowed a dole of

1. Atlas of India, Oxford Pamphlets on Indian Affairs, No. 16, 1943. See also V. K. R. V. Rao, *The National Income of British India, 1941*, p. 81; and the estimates of the Central Banking Enquiry Committee, 1930.

2. "Rural Marketing in India," Majumdar, S. C., in *Rural India*, April, 1940, pp. 232 *et seq.*

3. *Agricultural Labour Conditions in Northern India*," Lorenzo, A. M., 1946, p. 10.

food, but on an average their emoluments in cash and kind are just sufficient to keep them "breathing" rather than "living" in human society. The unchecked exploitation of the agricultural proletariat has given rise to such practices and institutions as 'begar' (forced labour) and 'kamiauti' (serfdom), which must be regarded as symptoms of an unhealthy agrarian situation.

An important step in the prevention of exploitation of landless agricultural proletariat, and the protection of peasant proprietorship from degeneration, would lie in the direction of regulation of employment of the paid workers on fields. An effective system of regulation can be found in the organization of Agricultural Labour Exchange Bureaus, which will not merely help in the periodical transfer of surplus labour power from regions of plenty to those of scarcity, but also control the hours and conditions of work for different categories of labour, regulate the payment of wages, and afford protection to woman and child workers against sweating. There is an urgent need for the abolition of praedial dues, forced labour, and agrestic serfdom by compulsory legislation, and of organizing agricultural workers into strong unions and of rehabilitating the rural democratic administration through a network of village Panchayats. An elaborate programme of health and security measures, a rural housing policy, and the provision of a wholesome atmosphere for social and cultural enlightenment are imperative for the building up of a healthy and prosperous yeomanry in India.¹

The problem of housing in India has hardly attracted the attention it deserves. Though rural

1. "Agricultural Workers in India," Lorenzo, Commerce, Trade and Employment Supplement, Dec. 1946, p. 32.

houses are in some respects better than industrial slums, they represent neither a cottage nor a house known to European farmers. The rural huts, which are made of mud-walls with thatched roofing, consist only of one room and have one entrance. Often these houses are built on land belonging to the landlord, and it can be understood what power a landlord wields over an agricultural worker settled on his land in the event of any dispute. Various investigations in northern India have brought to light the congestion of rural houses and the overcrowding of small rooms by both the family members of agricultural workers and their livestock. According to Misra: "In Jaunpur (U. P.) the huts generally consist of only one dingy room with kitchen, dormitory, parlour and in many cases cattle-shed combined."¹ In Gorakhpur, Mathur found, that a hut measuring $7 \times 12 \times 7$ ft. was occupied by five persons and a goat;² and in village Sheikhdhir (District Bahraich, U. P.) we found that a pair of puny bullocks, fishing tackle, and four members of a Guriya (caste) labourer's family were huddled up into a dark, ill-ventilated and stinky house, measuring $14 \times 20 \times 9$ ft.³ To many peasants the houses are simply places where they can stretch their legs and sleep at night, and in several instances the labourers' privacy blunts all sense of shame and decency. When men and women, young and old, healthy and sick are packed together with cattle in winter, the inmates suffer from preventable diseases, and can find no comfort or rest, and the home that should radiate noble,

1. Misra, B., *Over-Population in Jaunpur*, 1932, p. 55.

2. "Pressure of Population in Gorakhpur," 1931, p. 48.

3. "Land and Labour in Submontane Oudh," Lorenzo, 1932, p. 61.

social and aesthetic influences becomes a den of misery and disease where people breed and die like fruit-flies. It hardly needs to be pointed out that the economic, social and moral regeneration of the rural folk will depend on the extent to which we are able to improve their living conditions.

Allied to the problems of poverty, malnutrition and poor housing, are the unhealthy conditions and long hours of work. The field worker grumbles that the working day is excessively long and the conditions of work akin to 'sweating.' In the industrial areas the eight-hour day is becoming common, but this is not possible on the farm due to the absence of regulated employment and the seasonal nature of agricultural operations. In the rush of season the long day field-work entails much fatigue and wastage of energy. Not unoften women and children are forced to work from sunrise to sunset with very little afternoon leisure, and the plight of the agricultural serf is always lost sight of in view of the fact that he is a twenty-four hour servant of the landlord master. The unhealthy conditions of work considerably increase the liability to sickness and mortality, particularly amongst women and children. Illness in whatever form, whether due to overwork or unhealthy conditions of work, is both pathetic and tragic in the case of field-workers' families. It is pathetic, because even one day's absence from work leads them to starvation; and tragic, because the absence of medical aid and the means of procuring it most often result in untimely deaths. Therefore, not only should working hours be reduced and the conditions of work improved, but adequate protection should be given to agricultural workers against sickness, accident or unemployment. An improvement in the conditions of work in the agricultural

industry, and the protection of farm-hands from degeneration could be made effective by the institution of Benefit Funds, and the statutory regulation of employment through Wage Boards.

The employment of women and children in agricultural pursuit presents new sociological problems. The family solidarity is often broken by the employment of children of tender ages and of women in distant fields. Since the income of the male earner is inadequate for the support of the average rural family, both women and children are driven to work at low wages. In the absence of any protective legislation, they are almost always exploited by their cruel masters.¹ The removal of the mother from the home, and the weaning out of the child from the home atmosphere at an early age, lead to serious social consequences. The family of the working classes not only cannot grow into a perfect social organization, but loses all the charms and potencies that go to make a social personality of its individual members. Economic needs of the rural workers, therefore, which seem to be given preference over social needs, tend in the long run to disintegrate the rural family and disrupt rural social solidarity.

More alarming is the persistence of agrestic serfdom and the growth of praedial exactions. It has been estimated that about 50 million persons in the country today, belonging to the depressed classes and exterior castes, are reduced to the status of serfs and 'begars,' and they toil night and day on a pittance on the fields of their masters. They are crushed under a huge burden of heredi-

1. Pant, I, (Miss), "Women in Agriculture," 1930, Introduction, p. (IV).

tary indebtedness from which there is no escape. A section of the people, thus enslaved and exploited calls for immediate remedial measures. Agrestic serfdom, forced labour ('begar'), and praedial exactions cannot be defended on economic or moral grounds, and must be abolished forthwith.²

There is, then, the problem of organizing agricultural workers into strong Unions, and of rehabilitating the rural democratic administration through a net-work of Village Panchayats. The organization of Multi-Purpose Co-operative Societies, which will look to the various economic needs of the rural population, e. g. seed, manure, machinery, irrigation, power, transport, marketing and finance, will tend to make every village a self-sufficient economic unit and social centre.³ An elaborate programme of health and security measures, and the provision of a wholesome atmosphere for social and cultural enlightenment are imperative for the building up of a progressive nation. Provision for vocational and cultural centres, rural libraries and technical training institutes, improvement of sanitation, establishment of holiday camps for agricultural workers, are the crying needs which demand immediate State attention.

There is an urgent need for land reform and the extension of protective legislation to agricultural workers in India. Extensive and comprehensive measures are called for in the direction of the nationalization of land, consolidation of holdings.

1. "Agrarian Serfdom in India," quoted by D. Desai in "Indian Sociologist," July, 1942.

2. "Agrestic Serfdom," by A. M. Lorenzo, in the *Indian Journal of Social Work*, September, 1944.

3. "Organization of our Agricultural Workers by A.M. Lorenzo, in the *Indian Journal of Social Work*, December, 1946.

the development of mechanized farming on co-operative lines followed by collective farming, the co-ordination of different branches of agriculture and the allied groups of industries, the provision of subsidiary industries for keeping workers engaged in off seasons, and the re-allocation of landless workers in rural and urban industries for effective and regulated production.

PLANNED TECHNOLOGY OF TRANSITIONAL LABOUR ECONOMY

The problems of land and labour in India are rendered more complicated by the three simultaneously moving and inter-acting forces of socio-economic transition. There is, in the sphere of agriculture, 'first,' a transition from the technique of vegetable civilization (depending largely on human labour and organic energy resources) to the technology of machine civilization (dominated by metal and inorganic power resources); 'second,' a transition from the incidental cultivation of annuals to the institutional culture of perennials; and 'third,' a transition from a war-time programme of hyper-activity to a peace-time policy of balanced and stable economy.

In the first instance, the transition from human labour to machine power will present problems of unemployment and under-employment. This will involve the re-allocation of different categories of labour not only in different branches of agriculture but also in different phases of production and in proportional priority. It will involve also the readjustment of labour time in relation to the capacity and mobility of machine power as applied to one or more operations in a productive process, and the redistribution of

surplus labour from zones of plenty to those of scarcity.

The institutional culture of plantation perennials is a new phase in Indian rural economy. In view of the steady increase in the production of commercial crops, not unoften at the expense of food crops, it seems probable that the interest in rural market, on the part of some cultivators at least, is waning. Meanwhile the 'per capita' income of agricultural workers engaged in the production of raw materials of industries appears to be gaining. There is thus a steady flow of labour power from food producing regions to zones of commercial crop cultivation. Moreover, there is now a wholesale migration of landless and ill-employed agricultural workers to the plantations which offer greater stability and prosperity to labour. The supply of labour in proportional priority for food and raw material industries, and the regulation and control of rural-urban migrations, are problems of transitional economy.

Finally, the transition from war-time economic strain to the post-war rehabilitation will not be easy for an essentially agricultural country like India, with her normally poverty stricken and illiterate working population. Post-war evolution of agricultural labour economy will undoubtedly inaugurate certain tendencies in the relative strength of workers in agriculture, plantations and non-agricultural industries, severe fluctuation in rates of wages, set-back in inflated incomes and the standard of living, relative unstability of demand for labour and reverseral tendencies of migration in consequence. Unless the stabilization and adjustment of labour power is planned in harmony with the rhythm of economic life of the country as a whole, India's economic system would not be

able to withstand the impact of post-war construction, and a grave economic crisis would threaten the rural as well as urban economy of the country. The fear of this forestalled economic maladjustment in the post-war period, which may undermine the foundations of agricultural and industrial stability, is aggravated by the problem of rehabilitation of the demobilized personnel from military service and war-time industries.

RETROSPECT AND FORECAST

Although social reformers have time and again stressed the need for safeguarding the interests of agricultural working classes, the Central and Provincial Governments, and the Indian States too, have taken few effective measures yet. Tenancy legislation has so far failed to eradicate the evils of capitalist exploitive economy. Adaptive measures of economic amelioration evolved by academicians after firsthand field investigations have been shelved and forgotten. If the Governments fail to follow the course thus mapped out for them by these agencies, the country will never be able to extricate the major and the most important section of the working population from the rut of economic misery and social chaos.

The kaleidoscopic changes which have taken place in the rural economy of India in the course of the past decades, have brought the country into the gamut of a mighty economic revolution. These dismal changes, taking place with somewhat bewildering rapidity, have been fraught with struggles and sufferings of a magnitude unknown in the annals of any country. They have disrupted the industrial and social fabric of the whole Indian life, and have produced an array of problems of

socio-economic nature which are an index to the present agrarian chaos and political unrest in the country side.

Serious difficulties, associated with agriculture, persist in the economic sphere, and the solution of the outstanding economic problems would be largely helped or hindered by political circumstances. The faint rumblings of peasant class consciousness already audible in some parts of India, challenge the present economic regime. We see already the signs of peasant awakening in the growth of rural socio-political organizations such as the Mazdur Sabhas, Kisan Sanghs, the Peasant Unions, and active combinations against the absentee landlords. There has grown a universal contempt for the zamindar class which is accused of exploiting the poor and ignorant labourers by levying 'abwabs' and extracting 'begar' (forced labour). Agrarian crimes have taken the form of grain riots, strikes, arson and bazar looting; and kisan-zamindar clashes have become things of everyday occurrence. This mass point of view deserves to be articulated in the country's social and political programmes which are now on the anvil, and the whole structure of the village life needs moulding on new foundations of social and economic relativity.

The alarming growth of the landless and unspecified class of labourers, and the decline of actual tillers of the soil, has created a dangerous situation in rural society. There is no denying the fact that over large parts of India the number of persons on the land is much greater than the number required to cultivate it, and appreciably in excess of the number it can comfortably support. This floating population is increasing at a rapid rate, and is not only seriously disturbing the man-

land ratio in the rural areas, but is also creating great unrest in the urban centres. The problem of industrial unrest in the cities," observes Dr. Radhakamal Mukerjee "is connected closely with the growth of the landless class in the villages, which is both a social and economic menace to the country."¹

The balance of rural-urban industries is likely to be disturbed when almost the entire labour force is recruited from rural areas. The social composition of industrial and mining centres in India is characterized by the predominance of a large floating immigrant population, drawn casually from contiguous rural districts. This class cannot be allotted either to purely rural or urban population. Thus the cities and mining centres which depend on the periodical reinforcement of adult male labour, spell the breaking up of a comparatively stable village economy by temporarily removing man-power from the agricultural industry.

Finally, the outstanding feature, the effects of which are not confined to the pure economic sphere, is the dislocation of rural social solidarity and the disintegration of village communal life. The significant changes in rural community life, due to the introduction of western notions of property and tenancy legislation, have produced new factors in the evolution of civic social reform and national democracy. The growing recognition of peasant organizations and the rising tide of socialistic ideas are soon converting the masses into forces actively against the traditional regime. Owing to

1, Op cit. p. 11 (See also, "A Correlation between Village Unsettlement and Wider Political Disturbances," Lorenzo, in *The Indian Journal of Social Work* Vol. No. 4 March, 1945).

the increasing urban contact, the complexion of the rural society is rapidly being transformed, and the fusion of economic and political elements as the foundation of our national policies and programmes is likely to change the entire outlook of agrarian functionaries.¹

The present agrarian situation in India is, therefore, full of grave perils, and conditions such as these adequately prognosticate the calamities that are likely to shatter national prosperity and lead the country to an economic ruin. The economic position of the small holder has deteriorated, while the contrast between the landlords and expropriated peasants, between the increasing class of rent-receivers and the toiling agricultural serfs, betokens a critical stage in our agricultural history. The problem, in its true perspective, is not so much that of the land as of the social and political reactions of those who live on it and from it. The history of European rural discontent bears testimony to the fact that village unsettlement and wider political disturbances have a direct and complementary relationship. France and Russia could not avert their agrarian crisis except by a bloody revolution, and the fact that the Indian situation has of late risen to that level, presents a timely warning for the serious consideration of the economist, the statesman, and the social reformer.

1. Read, M., "The Indian Peasant Uprooted," p. 12.

CHAPTER THREE

Labour on Plantations

From the point of view of employment, the plantation industry ranks amongst the biggest organized industries in India. With the rapid extension in the area under plantations, due largely to an increase in the home consumption of plantation foodstuffs and raw materials, and an expanding international demand for Indian plantation wares, tea and coffee in particular, the number of workers has increased steadily in recent years. In 1911 there were 741,000 plantation workers, and 2,300,000 in 1941. The number of effective earners at the close of the war (1945) was estimated at more than 2·5 million on all kinds of organized commercial and incidental plantations in the country. The changes in the proportion of plantation workers to the total population and working population in India from 1911 to 1941 are indicated in the following table:—

	1911	1921	1931	1941
Total number of effective plantation workers:—	741,000	1,600,000	1,900,000	2,300,000
Percentage of the total workers in Primary Industries:—	0·8	1·6	1·7	2·0
Percentage of the total Working Population in India:—	0·5	1·0	1·1	1·3
Percentage of the total Indian Population:—	0·2	0·4	0·5	0·6

Though plantations occupy a mere fraction of the total population of the country, after cultivation of agricultural crops and stock-raising, they give employment to the largest number of workers engaged in primary production. Moreover, the plantation industry has, during recent years, not only kept pace with the increasing population, by giving employment to an increasingly larger number of workers, but has maintained an occupational balance in primary industries by offering casual employment to agricultural labourers set free on account of the seasonal nature of the agricultural industry. A large majority of the labourers employed on plantations is recruited from amongst the landless field-workers and unspecified classes which constitute the floating 'employable' population in rural areas. Not plantations alone, but mines, forests, and factories, as well, draw upon this perennial source of labour supply.

Labour power engaged in plantations (2,300,000 souls) represents only the principal earners and working dependents. If non-working dependents were also to be included, not less than 5 million souls would constitute the population dependent on the plantation industry.

The composition of an average family of labourers is 3·5 in the Assam Valley and 4 in the Surma Valley and that only 1·97 and 2·05 persons in such a family in the Assam and Surma Valleys respectively are workers or about half the number of persons in a family are, on an average, earning members for the whole of Assam.¹ In Bengal the size of the family is 3·57 in the Dooars, 3·36 in the Terai, and 4·45 in Darjeeling, whilst the

1. Report on an Enquiry into Conditions of Labour in Plantations in India, by D. V. Rege, 1946, p. 20.

proportion of non-working dependents is 1.25, 0.70 and 2.14 per family respectively. In South India 24.6 per cent of the members of families engaged in plantations are non-working dependents. There is also generally under-employment on plantations, and occasionally managers (particularly in the South) provide work to the employees for only four or five days in a week. The plantation management, therefore, maintains a labour force reasonably adequate for the busy seasons, but provides no work to surplus working hands in slack seasons when one-third to one-half of the total working strength becomes idle and dependent. Thus the number of non-working dependents fluctuates from season to season, swelling to considerable proportions during the slack seasons. Whilst, if we take into account the population engaged in plantation industry as its principal, dependent, and subsidiary occupation, the number, inclusive of non-working dependents, would not fall short of 10 million souls. To this extent, it needs pointing out that the number of agricultural workers is normally over-stated, because many workers employed seasonally and casually on plantations return themselves at the time of the census as agricultural workers. Whatever factors and forces tend to induce an increase in the effective as well floating population on plantations, they force also a proportionate diminution in the number of floating working classes in agriculture, and 'vice versa.' There is only one common tertiary fund of employable population in rural areas from which both plantations and agriculture draw their effective workers, and the rest of the population shuttles so often between agricultural and plantation industries from season to season and operation to operation that it becomes at once difficult to estimate the

number of workers who ply to pure agriculture or pure plantation as their subsidiary or dependent occupation.

Commercially, the most organized plantations in India are those under tea, coffee, and rubber, and to a smaller extent clove, cardamom, pepper and cinchona. Other perennials, e. g. coconut, fruits, betelvine, semul, sisal, etc., though important from the point of view of employment and trade, are still in the stage of incidental cultivation. The workers engaged in incidental plantations, as principal earners, ply to other branches of agriculture also as their subsidiary or ancillary occupation. The following table compiled from official statistics published by the Director General of Commercial Intelligence and Statistics gives the distribution of planted area and average daily working strength for the three principal staple plantation crops in India:—

Crop		Area Under Crop (acres)		Average Daily Num- ber of Workers	
		1931	1941	1931	1941
Tea 1	...	789,000	836,000	930,472	926,461
Coffee	...	163,000	191,000	92,504	162,493
Rubber	...	171,000	138,000	48,704	46,887
Total	...	1,123,000	1,165,000	1,071,680	1,135,841

1. Includes Minor Tea Plantations in the Punjab, the U. P., and Bihar, which together have 20,015 acres divided into 2,622 plantations, and an average daily strength of 18,183 workers.

It has been estimated that in 1941 about 400,000 workers were engaged in the production of fruits; 260,000 in coconuts and arecanuts; 200,000 in cardamom, pepper, clove, and other perennial spice crops; 140,000 in betelvine culture; and about 165,000 in cinchona, semul, sisal, and miscellaneous plantations. The following table shows the relative importance in 1941 of the various commercial plantations in Provinces and States from the point of view of the number of workers employed both on permanent and temporary basis:—

Plantations (a)	Actual Number of Workers Employed Daily	Percentage to the Total Number of Workers on all Plantations in India
Tea ...	926,000*	40·3
Fruits ...	400,000	17·4
Coconuts ...	260,000	11·3
Spices ...	200,000	8·7
Coffee ...	162,000*	7·0
Betelvine ...	140,000	6·1
Rubber ...	47,000	2·0
Miscellaneous ...	165,000	7·2
Total ...	2,300,000	100·0

1 Compiled from tables at pages 2, 3, 4, in Report on an Enquiry in Conditions of Labour in Plantations in India, 1946; the Report of the Royal Commission on Indian Labour in India, 1931, pp. 350-351 and the Planters' Year Book of the United Planters Association of South India, 1941-42.

(a) Principal earners only. Labour employed on incidental plantations, subsidiary to cultivation of agricultural crops, is not included in these estimates. Figures for coconut include workers on arecanuts plantations also.

* Estimates of Rege Labour Investigation Committee. Other figures are estimated from non-official records.

The number of workers actually employed on plantations is not the same as living on the estates. In 1942, for instance, the total number of the resident labour in the Bengal tea gardens was 375,398 souls, and 54·6 per cent of total resident population comprised the working population.¹ Of the total number living on tea gardens in Assam in 1943-44, i. e. 1,166,016 souls, 542,099 or 46·5 per cent were effective workers on the books, and only 404,050 or 34·7 per cent comprised the average daily working strength for that year.² Although the percentage of adult working population to the total resident population ranges between 50 to 70, a large moiety of them women, not more than 16 per cent of the children resident on tea estates in Assam and about 7 per cent in Bengal tea gardens constituted the working population. It would appear, therefore, that the working population on tea estates in North India includes labour drawn from resident population on plantations as well as from the non-resident population of the neighbouring villages. Temporary labour on tea estates is usually outside (non-resident or 'Faltu') labour, and constitutes from 5-8 per cent of the daily working strength in Assam and 8-12 per cent in Bengal, the percentage increasing substantially in plucking seasons. Outside labourers are usually the working dependents of ex-garden employees who have settled down as petty farmers outside the garden limits, and constitute the floating 'employable' population which feeds the plantation, forest, mining, and agricultural industries as casual hands at irregular intervals.

1. Annual Report on the Working of the Jalpaiguri Labour Act, 1943-44.

2. Rege Committee Report, *op. cit.* p. 16.

EMPLOYMENT OF WOMEN AND CHILDREN

An important feature of the plantation industry is that in proportion to men, it employs more women and children than any other form of organized industry. In fact, the basis of recruitment to the plantations is the family, and recruitment of individuals though countenanced is not encouraged. All the members of the family—men, women, children—are provided with work according to their ability and capacity on different estates, tea and coffee in particular. In rubber estates, however, the majority of workers come as single recruits, even though there is always a certain amount of work available to the women-folk. In tea and coffee estates, women and children are mostly employed in harvesting the crop. Children are employed at the age of 10 for light work only, and though child labour is not of economic value to the planters, but they have to engage it to satisfy the parents¹

The main reasons for the large employment of women workers in plantations are: 'first,' that plantation work is only a special kind of agricultural work and is therefore more familiar to women who are recruited mainly from rural areas; 'second,' that facilities are provided to male workers to settle on small agricultural holdings in the vicinity of plantations, so that while men devote themselves to farming, their women could work on the plantations; 'third,' the employment of women workers is encouraged by tea and coffee planters because of their comparative efficiency and low wage bill; 'fourth,' that under the old system of labour con-

1. Report, Rege Labour Investigation Committee, 1940
p 114.

tracts based on the principle of utilizing every able-bodied person in the family for labour and of fixing the wage rates accordingly, many women had to seek employment in order to balance the family budget, and although the contract system has been abolished, the wage system and the need for supplementary earnings still remain.¹

In many estates children of very tender ages (from 8 to 10 years) are employed by planters because parents often overstate their ages as 12—14. In Bengal, the percentage of workers under 15 years to the total working strength was 26 in Dooars and 21 in Darjeeling tea estates in 1943-44, where children start working from 7 years of age, whilst the corresponding figures for Assam were 21 (Surma Valley) and 14 (Assam Valley), and 12 for South Indian plantations. There has been a gradual decline, however, in the number of children (below 15 years of age) as compared with those living on the plantation estates, i. e. from 21·9 per cent in 1929 to 15·1 in 1944, and the daily average working strength fell from 14·4 to 11·5 during the same period. This decline followed the recommendation of a minimum age of 10 years for employment on the tea gardens by the Royal Commission on Labour in India.² The proportion of women and children to the average total daily working strength in Assam and Bengal tea gardens in 1943-44 was as follows:—³

Sex Group	Per cent of working population	
	Assam	Bengal
Men	44·4	40·7
Women	39·2	45·6
Children	16·4	18·7

1. Report on "Industrial Labour in India," International Labour Office, Geneva, 1938, pp. 35-36.

2. Report, I L. O., *op. cited*, p. 39.

3. Compiled from tables 14 and 42, Rege Labour Investigation Committee, Report B, Plantations.

The employment of men, women and children in South Indian plantations is given separately for tea, coffee, and rubber in the following table:—¹

Plantation Estates		Per cent of working population		
		Men	Women	Children
Tea	...	42	47	11
Coffee	...	49	40	11
Rubber	...	72	24	4
Total	...	49	41	10

The employment of women and children on plantations under conditions akin to sweating can be justified neither on economic nor ethical grounds, "A system of wages which requires the worker to depend upon the earnings of his wife and children or upon a subsidiary industry just in order to earn the necessities of life not to talk of decencies, luxuries and savings, can scarcely justify its existence from the point of view of social welfare or national economy." ² The fact that more than 50 per cent of the workers engaged on plantations are women and children, calls for immediate and adequate measures to safeguard their interests. Measures should be taken to ensure to women wage-earners protection similar to that provided by the International Draft Convention adopted by the International Labour Conference at Washington for women agricultural workers which includes the right to a period of absence from work before and after child-birth, and to a grant of benefit during the said periods provided either out of estate funds or by means of a system of insurance.

1. Rege Labour Investigation Committee Report on Plantation Labour, Table 82, p. 114.

2. Das, R. K, Plantation Labour in India, p. 181.

The employment of children below 12 should be prohibited by legislation; such measure has already been taken by Ceylon under section 56 of the Children and Young Persons Ordinance No, 48 of 1939. Protection to child labour may take the form also of prohibition for employment in hard manual work and dangerous tasks, abstention from work on certain days in the week or for a period in certain seasons, and regular inspection to give prompt aid to ailing children and making adequate provisions for their treatment. Indirect measures would be in the direction of organizing Socialized Restaurants and Canteens, Childrens' Nurseries, Sanatoria, Kindergartens and Hygiene and Recreation Institutes, which will relieve women of a large part of their domestic burdens and render the necessary protection to child workers.

METHODS AND MACHINERY OF RECRUITMENT

Since plantations in India are distributed into two well-marked and widely separated regions, viz. the North-East and the South, they represent a number of points of difference in regard to climate and soil, nature of plantation perennials, and the supply of labour. The north-eastern group of plantations has specialized in a single crop, i. e. tea, whilst the southern group grows a number of crops, often combined under the same organization, without much of specialization. From the labour point of view, the plantations in the South are situated amidst areas where labour supply is abundant and easily available from contiguous rural districts. Labour in South Indian plantations is, therefore, generally non-resident, temporary, and migratory, returning periodically to the villages which are not far distant. The plantations in the North-East

have to recruit workers from distant regions, and have also to face competition for labour from the mines, railways, forests, and manufacturing industries in Bengal, Bihar and Assam. The planters in the North-East have, therefore, to secure permanent workers, usually recruited in families and resident on the estates, in order that a regular flow of man-power may be ensured. Small plots of plantation land are often given to resident families, so that they may settle down as petty farmers and supplement their income from the tea estates. This factor of distance in the supply of plantation labour has an important bearing on the system of recruitment, wage payment, and the composition of the working classes.

The crux of the problem of recruitment in Assam and Bengal consists not merely in maintaining an adequate and regular flow of labour but of settling it on plantations in distant lands, where tropical climate and new social and economic situations act as deterrents to healthy and prosperous living. Naturally, therefore, the recruitment of labour for tea plantations in the North-East is more difficult than is it for South Indian plantations.

Labour in Assam tea gardens, which recruit the largest number of plantation workers in India, comes mainly from south Bengal, Chota Nagpur, United Provinces, Central Provinces, and Northern Circars. The Tea Districts Emigrant Labour Act XXII of 1932, which replaced the Inland Emigration Act III (Bengal Code) of 1863, modified by Act VIII of 1915, now regulates recruitment for Assam tea gardens.¹ Whereas the 1915 amending

1. A brief Historical Survey of the Recruitment Arrangements. Memorandum of the Indian Tea Association submitted to the Rege Labour Investigation Committee, 1945.

Act provided for contract labour, under the 1932 Act recruits are volunteers who can be repatriated at the cost of the estate after three years' service. "From the employment of labour under indenture or the system of penal contract and of private arrest by planters, acquiesced in by the illiterate and gullible rural folks—who are apt to be deceived by the rosy pictures given to them by the itinerant 'arkattis' or professional recruiters—to the free movement of coolies to Assam without being recruited has been a great advance." ¹

In order to enlist workers, the planters have organized the Tea Districts Labour Association. The machinery of recruitment and forwarding is provided by this Association, which supplies about four-fifths of the labour power to the tea industry of the North-East. There are Garden Sirdars, selected from labourers employed on tea estates who are sent to their home districts to engage labour for their gardens. Generally family parties are recruited for a term of three years, and sent through the Association's Forwarding Agency. Resident Sirdars, few in number, are also selected and sent down to recruit in exactly the same manner as Garden Sirdars, but they do not usually return to their gardens. They continue to send batches to the Forwarding Agencies over long periods. There are then Local Recruiters, i. e., individuals appointed locally in the recruiting district by the Local Forwarding Agent, and no tea garden has a lien on the services of such recruiters. They are employed on a commission to recruit labour for the pool which is established in each district in order to provide a labour nucleus for

1. Mukerjee, R. K., *The Indian Working Class*, 1945, p. 16.

those gardens which have hitherto not had any recruiting connection with certain districts in which they wish to start recruiting. Pool recruiting is, however, not very extensive.

Recruitment in Bengal is uncontrolled. Most of the gardens in the Terai and Darjeeling have permanently settled labour and do little recruiting, but recruitment for Dooars is done by the Tea Districts Labour Association or through private agencies. The bulk of recruits in Dooars is drawn from Chota Nagpur and the Santhal Parganas in Bihar. In Terai and Darjeeling, though composition of labour force is similar to the Dooars, a larger percentage of Nepali labour is employed in gardens on the foothills. Unlike in Assam, there is no system of inspection of tea gardens in Bengal, and unrecruited labour is free to move from one estate to another provided he has repaid the advance, if any, to his previous employer.

Labour for the plantations of South India is recruited mainly from unspecified class of agricultural workers residing in areas a few hundred miles from the estates. On tea and coffee estates recruitment is by families, but in the case of rubber recruitment is mainly of men who do not, as a rule, bring their families with them. Such work as is usually done by women in rubber estates is largely done by local labour. Failure of crops, bad monsoon and want of sufficient work in home village, and not unoften the lure of pre-employment advances, drive rural labour to plantations. Such workers are migratory, returning to their villages when crops are good and conditions of food-supply and employment become favourable, and many do not return to plantations at all.¹ Labour

1. Planters' Year Book, U.P.A.S.I., 1943, pp. 135-39

power on South Indian plantations is, therefore, floating and undependable.

There are three agencies for recruiting labour for South Indian Plantations, viz. (1) Kanganies, (2) Professional Labour Suppliers, and Subordinate Estate Staff. The Kanganies who work as agents of employers, are the principal recruiters, and are generally drawn from the ranks of the estate labourers themselves. Each Kangany is usually held responsible for the advances paid to the workers in his gang (which ranges between 10—30 souls), and for keeping the stipulated number of workers in the estate and also for supervising the work of his gang, in return for which the estate Superintendent agrees to pay him a commission of 10—15 per cent on the earnings of the workers in his gang. The Professional Labour Supplier is employed by the coffee estates of Coorg and Mysore and by many rubber estates in Travancore and Malabar. These suppliers are often rich and influential landlords who recruit persons from their own villages and send them to the estates. They do not supervise the work of labourers recruited by them, although they hold themselves responsible for advances made to workers and sometimes undertake the payment of wages also. Recruitment through subordinate staff is limited to a portion of labour employed on coffee estates in Coorg and Mysore. This labour is drawn from South Kanara, and usually the estate staff also comes from the same district as the workers. A certain number of labourers comes to the estates without the intervention of these agencies, and they receive the commission which would otherwise be paid to the recruiters. The lure of the additional cash payment, however, is not strong enough to attract the majority of estate labour.

Various kinds of abuses are connected with the methods and machinery of recruitment of plantation labour in India. The recruiting agents often with-hold a part of the money advanced for new recruits by the planters, and not unoften families brought to the gardens by false allurements remain disgruntled and inefficient, ready to desert the garden on the slightest provocation. Recruitment to Assam is governed by the Tea Districts Emigrant Labour Act of 1932, but there is no legislation on recruitment in Bengal, South India, and other plantation areas. Even for Assam, the control relates only to the forwarding of the assisted recruits and not to the methods and personnel of recruiting. Recruitment is mostly of aboriginal and exterior castes and landless proletariat, who are illiterate and can neither distinguish between the old penal sanction contract (now abolished) and the new agreement, nor can they exercise their privileges of assisted emigration, freedom of movement and association, and the right of repatriation.

Since recruitment is usually done by 'families,' the agents may bring men and women not legally husband and wife, and the practice of enticing away unmarried girls has been far too common to be taken notice of. "Unmarried girls and unattached women," observes Dr. Mukerjee, "are sometimes decoyed by false allurements, while even the use of liquor or drugs for enticement of coolies is not unknown." ¹ Protective legislation is urgently called for in this direction.

There is no doubt that the labourer is now legally free to leave his garden and to seek employment in any garden he likes, but in actual practice

1. *op. cit.* p. 18.

he does not feel that he is at liberty to do so. The inescapable load of refundable pre-employment advances,¹ the continuance of the payment of contract money ('girmit—which was paid formerly at the rate of Rs. 12 to a coolie and Rs. 8 for his wife when they entered into the labour contract), and the vigilance of the chawkidar to restrict the movements of workers to and from their lines, strengthen the notion among labourers that they are so bound to their gardens as the serfs on agricultural land. Even in cases of marriages between workers on two gardens, the consent of the managers concerned is generally taken, and under the terms of the Brahmaputra and Surma Valley Local Recruitment Agreement of 1939, among planters, no manager of a garden can deliberately entice away or recruit labourers from other gardens. There is, however, no organization on the workers' side to redress the balance; the effect of the system is to diminish still further the liberty of the worker to dispose of his labour to the best advantage and to add to the restriction upon his movements.²

Where a mass of illiterate, ignorant and helpless people live far away from their homes in settlements scattered in forest areas segregated from outside influence, unorganized and unable to protect themselves; where the law cannot be understood nor can agreements be made operative; where outsiders are prohibited to enter the lines occupied by the workers and to have access to their dwellings—such evil practices as the forcible

1. Sometimes a recruit is given a small advance to clear off his debt to the local money lender to enable him to leave the village. Pre-employment advances are most common in South India.

2. Report of the Royal Commission on Labour in India, p. 377.

retention of workers even after the expiry of their term of service, the meeting out of corporal punishment to absconding labourers, the obtaining of contracts from minors, and the denial of repatriation even to the sick and disabled personnel call for a comprehensive policy of plantation labour legislation and social reform. The Controller of Emigrant Labour, no doubt, exercises supervision over the methods of recruitment, but his sphere of control is very limited; and, in the face of widespread malpractices in connection with plantation labour, the small number of prosecutions due to infringement of the law is an indication to the fact that not only protective legislation is inadequate and defective but that the control is also deplorably slack. Under executive instructions of the Assam Government, the District Officers, who are required to inspect each garden within their jurisdiction once in two years to satisfy themselves that the Provisions of the Tea Districts Emigrant Labour Act are understood and are being applied, hardly have a talk with the labourers privately, i. e. without the presence of the manager or supervisor, and they collect the necessary information from the managers themselves. These inspections of gardens have no binding force and have dwindled of date.¹ There is no regular system of periodical inspection of plantations in South India.

The disadvantages of the Kangany system, on the whole, outweigh the advantages, and its continuation would mean the continuation also of the rut in which plantation labour has been living for the last fifty years. Workers who are more educated, they are all one in demanding the speedy abolition of the Kangany system. The feeling of help-

¹ Rege Committee Report on Plantations, p. 184.

lessness of the worker without the Kangany is the result of ignorance and want of education, and its abolition would go a long way in educating the labour in plantations to stand on its own legs.' "If along with the abolition of the Kangany system," observes the Rege Committee, "weekly or fortnightly settlement of wages is also introduced, it would help smooth the difficulties that labour might at first feel for want of person who would give them the necessary advances for their sundry requirements."² To the question of the planters' fear that without Kangany they will not be able to recruit labour in required strength for their estates, it may be stated that at present the labourer belongs more to the Kangany than to the estate, but if the attractions of plantation life are increased, the result should be that the large majority of the labourers at least will come to the estate without the intervention or persuasion of any intermediary.³ An alternate method of recruitment would be to enlarge the scope and functions of the Labour Department of the United Planters' Association of Southern India, and to make it a counterpart of the Tea Districts Labour Association in North India, in order to evolve a uniform policy of recruitment of labour and their transport from the villages to the estates. A planned reorganization of the methods and machinery for the recruitment of plantation labour in India depends on the active co-operation of the State and the employers. The need for an all-India plantation Labour Bureau is

1. Development Department G. O. No. 108, of 12 January, 1930, Government of Madras.

2. Report, *op. cited*, p. 124.

3. Report of the Royal Commission on Labour in India, 1931, p. 370.

more urgent to-day than ever before, because the introduction of labour legislation and social reform cannot be effective if applied to a large number of competitive counterparts of a common industrial enterprise. The all-India Plantation Labour Bureau should organize Regional Labour Exchanges and District Labour Depots to assist volunteers to proceed to plantation areas and, besides regulating the distribution of labour power from the surplus to deficit areas, look also to the conditions of employment and economic and social amelioration of the working classes. Since the plantation industry draws upon mostly the agricultural man-power, and in turn feeds other primary and factory industries, a close co-operation among the Labour Boards of these industries would be in the best interests of the workers themselves and the organized industries of the country as a whole.

EARNINGS AND STANDARD OF LIVING

The system of wage payment on plantations in India is to a very large extent chaotic, arbitrary and inelastic. There is no standardization of jobs and tasks hence, along with the lack of uniformity of the basis of wage payment, striking variations of wages and earnings are met with in the North and the South. Since wages and earnings in the long run tend to determine the general standard of living of the labourers, adequate ameliorative and protective measures should be taken both by the planters and the State to improve the economic position of the working classes in plantation farming.

In Assam tea gardens payment for field-work, other than plucking, is generally based on two kinds of piece-rate systems, viz. the 'hazira,' the

older and still common; and the 'unit' system, the recent modification of the traditional system of wage payment in force on some gardens in the Assam Valley. Under the 'hazira' system, each man who turns out to work is allotted a certain task on the completion of which he earns his 'hazira' or daily payment.¹ 'Hazira' takes about five hours to complete. The task is, to some extent, adjusted to capacity; children, convalescent adults, and mothers nursing infants are frequently given a lighter task. The rates are generally 5 annas for men, 4 annas for women, and 2 to 3 annas for children. When a labourer has completed his 'hazira,' he may undertake another set task on the completion of which he earns 'ticca,' in addition, which is usually very small (about 25-30 per cent of the 'hazira').² Under the 'unit' system a labourer is not given a fixed task but, up to a certain limit, is allowed to do as much or as little as he likes. A 'unit' is expected to be finished in one hour, and the payment for it is one anna. The advantages of the 'unit' system over the 'hazira' system are that all work is paid for at the same rate, there is simplicity in accounting, and elasticity in operation.

Payment in Bengal tea plantations is usually on the 'hazira' and 'doubli' (same as 'ticca' in Assam) system. The 'hazira' is completed in about 4 hours, and the rates of payment are 4 annas for men, 3 annas for women, and 2 annas for children. 'Doubli' is smaller than 'hazira' but is paid at the same rate. In the cinchona plantation, the basic ('hazira') rate is 5, 4, and 3 annas for men, women

1. The term *hazira* is applied to the daily task as well as to the sum payable for its performance.

2. The term *ticca* appears to be a corrupt form of *theka* or contract, and is applied only to overtime work.

and children respectively, and no extra work ('doubli') is generally done.

In South Indian plantations both the time and piece rate systems prevail. The harvesting of tea, coffee and rubber crops is paid for on a piece basis, all other work being paid for on time basis. The time rates, however, are generally governed by the amount of work or a set task that a worker must finish within the customary time of 8 hours to earn a full day's wages. The average rates of daily wages (in annas) on tea, coffee and rubber estates are as follows:—

		Men	Women	Children
Tea	...	7	5	4
Coffee	...	6	5	3
Rubber	...	6	5	4

Though some tea estates pay higher wages than coffee and rubber estates, there is, on the whole, a uniform rate of time wages on all plantation estates which are members of the United Planters' Association.

Plucking on tea estates is done mostly by women, and it is on plucking that good earnings are made. The rate of payment in Assam is usually one anna for 5 pounds of leaf in Assam Valley, and for 8—10 pounds in Surma Valley where generally coarse leaf is plucked. Plucking is paid on 'hazira' basis in Bengal, and a fixed weight, varying from 16 to 24 lbs. for men, 10 to 20 lbs. for women, and 8 to 10 lbs. for children, has to be plucked. Any leaf plucked over and above the first task is paid at the rate of 3 to 4 annas per seer (2·2 lbs.). In

South India the rate for leaf plucking is 3 pies per lb. in times of heavy flush and 4 pies in slack seasons. Usually only women are employed on plucking, but in busy months men and children are also employed.

Piece rates in coffee estates are usually 4 to 10 annas per box (of 80-100 lbs. capacity) of ripe cherry brought in, although the volume unit of crop harvested varies from estate to estate. In rubber estates tappers are paid a piece rate which may vary from 7 to 15 pies per lb. of dry rubber. When yields do not permit the earning of full standard wage, it is usual to pay on a task basis of tapping 250-300 trees, irrespective of the yield. A combination of tapping task and yield task is common in Travancore, where tappers are paid at the rate of 8 pies per lb. of dry rubber, or a daily rate of 6 annas. Most of the large rubber (and tea) estates have factories, where the workers get usually an anna per day more than the ordinary field labourers.

In addition to the cash wages, the labourers on certain plantations receive certain allowances and concessions. In Bengal tea estates and South India rubber plantations a dearness allowance is paid at the rate of 1 anna to adults and 6 pies to children, while in most of the coffee estates it is only 6 pies and 3 pies respectively. The concessions are mainly land for cultivation at a cheap rent, free housing to hold labour, medical attendance and maternity benefits, fuel and grazing, and cheap foodstuffs and clothing. In South India a blanket allowance is given usually on the completion of 200 days' full labour whilst cheap foodstuffs and clothing which are linked with attendance are inadequate and subject to availability of stock. Both the Assam Labour Enquiry Committee 1921, and the Royal

Commission on Labour in India (1931) have stated that no monetary value can or should be placed on these concessions.¹

The average monthly cash earnings of settled labourers in tea plantations of Assam and Bengal is as follows:—²

		Man	Woman	Child
		Rs. a. p.	Rs. a. p.	Rs. a. p.
Assam Valley	...	9 10 3	7 13 1	5 14 10
Surma Valley	...	7 13 7	5 10 6	3 12 10
Dooars	...	13 8 0	8 12 6	3 14 11
Darjeeling	...	12 4 8	9 12 10	4 9 1

The average monthly earnings, including sundry allowances, of adult workers in South India are as follows:—³

	...	Rs. a. p.
Tea estates	...	10 12 0
Coffee estates	...	8 11 9
Rubber estates	...	13 2 0

The Rege Committee observed that since 1939 the cost of living in Assam and Bengal plantation areas has gone up by 200 per cent, while the total

1. Report, Royal Commission on Labour in India, p. 385.

2. Rege Report, *op. cit* p. 187.

3. *Ibid*, p. 188.

earnings of plantation workers including the value of foodstuffs and cloth concession have increased by about 100 per cent. In South Indian plantations the cost of living has gone up by 100 per cent, but the increase in the earnings of adult workers has not gone beyond 60 per cent. The real wages of the low paid plantation workers have thus gone down since 1939.

A study of the family budgets of plantation workers shows that their income is so low that even the basic requirements cannot be provided, and that almost all families are indigent and involved in debt. A typical budget of a family of three adults and one child (working dependent) in Assam showed that the aggregate weekly income of the family was Rs. 5-7-0, whilst the expenditure incurred in purchasing rice, dal, fish, salt, spices and vegetables amounted to Rs. 6-1-0. i. e., the family incurred a debt of 10 annas every week on bare necessities.¹ Dietetic investigations in plantation areas show inadequacy in total calories, and absence of protective foods. The normal daily diet consists of cheap parboiled rice and pulses, and lacks in animal protein and fats, vitamins and essential mineral elements, with the result that the working population has poor stamina and low powers of endurance and resistance to infection. There is frequent occurrence amongst them of respiratory diseases, gastro-intestinal diseases, diarrhoea, dysentery, cholera, beri-beri, anaemia, skin diseases and malnutritional oedema.² Associated with these symptoms of ill-health, are the unhealthy conditions

1. "Surveys of Diet and Nutrition," Indian Journal of Medical Research, October, 1939.

2. Problems of Nutrition in India, R. McCarrison, the Allahabad Farmer, March, 1934, pp. 76-77.

and long hours of work, the scourge of malaria, and the prevalence of tropical weaknesses, which are responsible for the morbidity and inefficiency of plantation workers. A balanced and protective diet is not possible until the purchasing power of the consumers is substantially increased, and provision is made for the supply of adequate quantities of animal foods and vegetables. The problem of deficiency diseases is one of the improvements of conditions of living and of food-supply of the working classes.'

There can be no denying the fact that the earnings of plantation workers are, on the whole, inadequate and the systems of wage payment defective. The system of wage payment is an anachronism. There seems to be no logical basis for the fixation of the task, except what the manager in his experience thinks it equitable to fix; and most of the labour troubles are often due to the size of the task, fixed arbitrarily, irrespective of the worker's capacity and the normal working period. There are obvious limitations to the possibility of extra earnings, because 'ticca' is available only in certain seasons, and the larger the labour force the less the opportunity for earning 'ticca.' "The elasticity of the piece rates of wages in the gardens," says Dr Mukerjee, "coupled with the preponderance of the aboriginal labour in the plantations which are also isolated from one another, makes this system liable

1. The Royal Commission on Labour in India remarked that a more generous policy of allocating land for grazing and cultivation would not only affect improvements in their health by providing the necessary animal fats and vitamins, but would also promote a spirit of contentment in a people actuated by a deep inborn love of land. Report, Chapter XXII, p. 406.

to both fraud and overtime work without proper payment."¹

In view of the bewildering variety of the 'hazira' and the loose manner in which the word 'ticca' is used, it will be much better if the 'unit' system, standardized and modified in the light of the characteristic conditions of individual estates were adopted by the plantation industry as a whole. Even though tasks do not lend themselves to any standardization, certain broad principles may be prescribed in deciding a task. For example, a task should be such that a worker of average skill and diligence should be able to complete it within the normal period of work. Under no circumstances should wages be with-held for not finishing a task, nor should the workers in a gang present be required to finish the task of the absenteees also in addition to their own. The abuses inherent in the existing piece-rate system of wage payment can easily be combated if the Planters' Associations in the North and South evolve a common, standardized, task-unit, separately for adjustment to the peculiar conditions of soil, crop, and climate of the estates concerned.

There is need also for the introduction of a uniform working-day and the wage-period. Since most of the workers have to supplement their small income from 'hazira,' which demands 4 to 5 hours, the working day both in the North and the South is usually a long one, i. e. from sunrise to sunset. There are few paid holidays, and work in tea estates continues even on Sundays in times of heavy flush. The wage period varies from garden to garden in North India, i. e. weekly and fortnightly in Assam, and monthly in Bengal. In

1. *op. cited*, p. 94.

South India there is the annual settlement system, under which the labourer is credited with his weekly earnings, debited with the cost of rice and cash advances, and his balance is carried forward for disbursement after clearing his dues to the Kangany at the end of 10 months which is generally the employment period. In all such settlements, owing to many deductions, for idleness or absenteeism, by planters, and praedial exactions by intermediaries, full payments are illusory. The annual settlement system was condemned by the Whitley Commission and the Rege Committee, which have favoured a uniform weekly wage period, because the monthly and annual settlements entail much waiting on the part of workers who have no resources and staying power. Comparatively higher wages should be paid for overtime; while the contract work under Kangany system, which lends itself to sweating, should be abolished forthwith.

The plantation industry in India should guarantee to the workers a minimum standard of living. Minimum basic rates and additional quotas, adjusted to the types and kinds of operation, should be adopted on a uniform scale throughout the country; and the wages and earnings should be made so elastic as to move in sympathy with the index numbers of prices of commodities which are essential for maintaining a reasonable standard of living. Since on the plantations the family is the economic unit, the wages of an individual earner should be considered from the point of view of the whole family; and if the starting age of the child worker is fixed at 12 years, there is no reason why in fixing the basic minimum wage there should remain a disparity in rates for men, women, and children. A living cash wage for each worker,

assuming that only two out of an average family of four are earning members, should not fall below Rs. 20, in addition to customary allowances.

It is high time that the recommendations of the Labour Commission relating to the regular and prompt payment of wages, the recovery of recruiting costs, including cost of transit, and restrictions on the recovery of advances should now apply to the whole of India.¹ The establishment of statutory wage-fixing machinery is desirable, and if proper methods are adopted, a practicable scheme can be devised by the Wage Fixing Board and put into operation. Before legislation is undertaken, however, an inquiry should be instituted as to the most suitable form of machinery, the actual rates paid and the variations in these rates between crop and crop, estate and estate, and region and region. The establishment of a Wage Board, under the proposed All-India Plantation Labour Bureau, would go a long way in evolving and implementing a uniform wage policy for plantation labour in India.

LABOUR WELFARE AND SOCIAL REFORM

The problems connected with the economic amelioration and social regeneration of plantation workers in India are not fundamentally different from those confronting their agricultural confreres. Apart from the evils of sweating and ill-employment, the mass of plantation labour is to-day involved in a vicious circle of poverty, ill-health, and illiteracy from which he can find no escape and with which he has to get along. Ill-health is main-

1. Royal Commission on Labour in India, Report, 1931, Chapter XIII, pp. 394-402.

ly the accompaniment of poverty, and illiteracy is largely the cause of both poverty and ill-health. ¹ Little economic improvement and social progress, therefore, can be expected from the workers themselves.

The eradication of these evils, though not within the powers of helpless plantation workers falls, however, well within the range of State control and, to a large extent, within the power of the individual employer to eliminate. But the European planters, and their Indian satellites who, until comparatively recent years, formed the bulwark of colonial exploitation in India, have so far failed to develop the moral and material well-being of their employees. There has been going on, for over a century, a ruthless and indiscriminate exploitation of man-power in all plantations in India with the result that the economic condition and social position of the workers have sunk to such abyssal levels as are occupied by agrestic serfs only. In view of the mighty changes, however, that are taking place with somewhat bewildering rapidity in the political, economic and social spheres in India, the plantation industry can no longer continue in its present unhappy state in which it has neither State protection nor Union support. The age-long apathy of the State toward plantation labour must now disappear.

The health of the worker in plantation areas is a question of primary importance, because not only does a high morbidity rate reduce production but also handicap the progress of the plantation industry. Malaria and malnutrition are responsible for the lower physical standards and general absen-

1. Butler, H., *Problems of Industry in the East*, I.L.O., p. 23.

teeism from work. In many plantations in Assam absenteeism caused by debility due to malaria and anaemia ranges from 39 to 43 per cent of the daily strength of workers, while in Bengal it is 28 to 32 per cent in tea gardens and 27 per cent in cinchona plantations. The low percentage of absenteeism (about 18) in South Indian plantations is due to the lesser prevalence of malaria, though it cannot be attributed to better economic conditions or superior physique.¹ There has been deterioration in the health of tea garden labour due to malnutrition, and the effect is specially noticeable among non-working children. "The heights and weights of Assam coolie children are much lower as compared with those determined among groups of children of the agricultural class in Barisal and Dinajpore."² The Rege Committee observed that the death rate has increased from 18 'per mille' in 1941 to 28 in 1944, in Assam, and from 23 'per mille' in 1941 to 30 in 1944 in Bengal; and that both birth and death rates are higher in the gardens than in the Provinces as a whole.³

The Planters' Associations should take extensive measures to combat malaria and malnutrition under expert advice and supervision. The provision of good water for drinking, an increase in the quantity of improved varieties of foodstuffs, and canteen feeding of children should be 'a priori' practical measures. The organization of medical aid should include, besides outdoor hospital treatment, the employment of Health Visitors and Sanitary Inspectors, and the establishment of

1. Whitley Commission Report, p. 405.

2. Wilson and Mitra, "Surveys of Diet and Nutrition," quoted by Mukerjee, *op. cit.* p. 95.

3. Report, pp. 60 and 89.

Nursuries and Orphanages for children whose parents die in harness. There is need for a closer co-ordination of these agencies of health and welfare. The District Health Officers, acting as Government Inspectors, should be empowered to deal with breaches of public health laws and regulations on estates.

The housing of workers on plantations, particularly in tea gardens in the North—East where families have settled permanently, has an important bearing not only on health and efficiency but also on the supply of workers. Though resident labour is housed rent free, the dwellings are neither hygienic nor commodious. Most of the houses are constructed of mud plaster with thatched roofs, and necessary repairs are carried out by the labourers themselves during the slack season, thatch being provided free.¹ The addition of suitable verandahs, separate kitchens and adequate provision of bathing and washing places have received too little consideration in the housing of labour in the past. The Labour Commission recommended that houses in plantation settlements should be of more recent type, built in blocks of two rooms, and should meet all requirements in regard to space, light, ventilation, drainage and water supply. Larger houses should be provided for larger families, and the blocks should be suitably spaced out and not built back to back. The District Officers, in consultation with the Public Health Department, should have power to condemn insanitary houses, and standard type plans to suit varying conditions should also be prepared and made available to the employers. Wherever possible, workers should be

1. Report, Royal Commission on Labour in India, p. 408, and Appendix I, paras 300-306.

encouraged under supervision, to build their own houses on approved lines, the cost of building materials and labour charges being met by the managements.

Welfare measures on plantations are, in general, inadequate and ineffective. These should be extended and improved. The feeding of non-working children, a general practice on the plantations in Ceylon, is a sound investment and should be generally adopted, and a more frequent house-to-house medical examination of workers and their dependents should be considered an effective measure in promoting health. The practice of giving free food in all plantation hospitals, and the granting of sick-benefits and a gratuity to a relation acting as sick attendant, are strongly recommended by the Royal Commission on Labour in India.¹ In order to secure the general adoption of a satisfactory scheme of maternity benefit, some form of legislative compulsion is necessary. The law should require the employer to give a cash benefit to the mother, which should ordinarily take the form of half her daily average wage for a period of 4 weeks before and 4 weeks after childbirth, in addition to reasonable cash allowance to defray incidental expenses toward supplying nourishment to the mother and the child. The administration of the maternity benefit legislation should be entrusted to the Board of Health and Welfare in a prescribed zone, and the Board should be given power to prescribe the number of women employed on each plantation.

Plantations present certain characteristics which make it not unreasonable to look to the employer for a bigger contribution towards the education of the actual and potential child labour,

1. Report, p. 412.

the provision of recreation and entertainment, the establishment of night schools for adults for imparting general and technical training and lessons in domestic science, and the organization of welfare centres in labour settlements and sub-urban areas which supply casual labour in busy seasons. The compulsory schooling of children up to the primary standard would no doubt facilitate the operation of the minimum age regulation regarding the employment of child workers above 12 years on plantations. The Central Government has been able to insist on the provision for the children of Indian workers who migrate to the plantations of Malaya and Ceylon of suitable educational facilities up to the legal minimum age of employment (i. e. 10 years), and there is no reason why such compulsory legislation should be delayed by the Provincial and State Governments in India. The organization by planters of recreational centres, athletic meets and tournaments, and programmes to provide entertainments (i. e. through concerts, theatres, cinemas, folk dances, etc.) to the labourers should receive immense appreciation. Welfare Centres and Social Service Leagues can do yeomen service in promoting the social and civic life on plantations.

In the execution of a plan of social welfare for labour on Indian plantations, the questions of finance, executive machinery, and State control and supervision assume great significance. Individual schemes, with limited resources and variable standards, cannot cope efficiently with the more complicated and ever growing problems associated with the health and welfare of plantation workers, unless their efforts are co-ordinated and supplemented by various Government Departments. The Royal Commission on Labour in India recommend-

ed the establishment under statute of Boards of Health and Welfare for convenient areas. The important principle underlying the organization of these Boards is that, in the first instance, the plantation industry, actuated by the motive of enlightened self-interest, itself should be entrusted with responsibility, and secondly, the organization of these Boards will not only ensure the implementation of uniform programmes and policies but also enlist institutional support from the Government. If the initiative is taken by the employers themselves, the Government will certainly not ignore the claims to certain minimum requirements of an important section of the Indian working classes on plantations. While investing the Boards with adequate powers, and granting financial aid and technical assistance, the State should exercise a strict control through Official Inspectorate on the conditions of work and employment on plantations, and institute prosecutions of persons defaulting against any of the regulations, whether issued by the Boards concerned or by the State itself.

Apart from the problems of general social welfare, there is one of organization of plantation workers into strong Unions. While on the side of the employers there are strong and effective Associations to protect their common interests, the plantation workers are illiterate and unorganized and cannot, therefore, develop the spirit of collective bargaining. The two powerful employers' organizations are the Indian Tea Association in North India and the United Planters, Association of Southern India, and the only one union of garden labourers in the Cachar District of Assam has, after some abortive attempts at organization, frit-

tered away in recent years. Not until the ranks of plantation workers are consolidated through Labour Unions can the measures for labour welfare and social reform be enforced upon the employers, nor can Labour Movement succeed until the Government recognizes the right of association and collective bargaining in respect of matters affecting the common interests of the working classes engaged in the plantation industry. In view of the poverty, ignorance and many-sided weakness of plantation workers it is for the Government to take the initiative in making recognition of unions easy and in encouraging them to secure registration. The Trade Unions Act should now be amended so as to provide adequate protection also to a large and growing population of toiling serfs on plantations. When we consider the growth of labour movement as an expression of national democratic movement that is tending wholly to regenerate the economic, social and political life of the country as a whole, the denial of the right of association to plantation workers is neither social justice nor sound statesmanship. The success of the Plantation Labour Unions in India will depend on how far public opinion and the resources of the State can be patiently mobilized.

CHAPTER FOUR

Labour in Mines

The average daily number of workers employed in the mining and quarrying industry of India was 347,018 in 1941¹ as compared with 346,000 in 1931,² 347,349 in 1921, 303,449 in 1911, and 104,660 in 1901. During the forty years (1901-41) the number of workers increased by about 136 per cent. If we include the number of workers employed in mines and quarries not regulated by the Indian Mines Act, the number of women employed underground,³ and children working at home;⁴ the total number of workers in all categories would come to about 500,000 or about 0.3 per cent of the total working population of India.

In the following statement are shown the changes in the proportion of mining workers to the total population of the country, and to the

1. Indian Labour Gazette, Vol. I. No. 5, November, 1943, p. 124.

2. Report, Census of India. 1931, Vol. I, Pt. 1, p. 313.

3. Underground employment of women was permitted by the Government during the war.

4. Children employed in cottage workshops in mica mining areas, for assisting family hands, do not come under the provisions of the Employment of Children Act. The number of children employed in many mines and quarries for surface work, in open defiance of law, is considerable.

total effective population engaged in primary production:—

	1911	1921	1931	1941
Total effective strength in all mines ..	308,449	347,349	346,000	347,018
Percentage of the total workers in Primary Industries ...	0·32	0·33	0·35	0·30
Percentage of the total working population of India ...	0·21	0·23	0·22	0·20
Percentage of the total Indian Population ...	0·09	0·10	0·09	0·08

It is noteworthy that the increase in the total number of mine workers during the periods 1911 to 1941 (from 308,449 to 347,018 or by 12·5 per cent) has not been proportionate to the increase in the number of workers engaged in Primary Industries or to the growth of India's total population and working population, respectively. The possible explanation for this lag is found in the unstable nature of mining labour class, which shuttles about in a triangle formed by agriculture, mining, and manufacturing, attracted by the highest wage - rate offered by these industries in different years. The "grow-more-food campaign," the "back-to-the-land movement," the demand for labour in war-time industries—all together have diverted labour power from the mining areas during the past decade (1931-1941).

It should be noted, however, that of the total number of workers engaged in all mines in India, the coal mining industry accounts for about two-

thirds, and nine-tenths of those who work underground. Apart from stone quarrying, the other mining industries which employ more than 10,000 workers are manganese and mica mining:—¹

		Total Workers (1929) in British India	No. of Mines
Coal	...	165,658	548
Manganese Ore	...	27,243	125
Mica	...	16,555	498
Other mines	...	60,245	561
All Mines	...	269,701	1,732

During the year 1939 the daily average number of persons working in and about the mines regulated by the Indian Mines Act was 305,344. Of these persons 146,827 worked underground, 76,659 in open workings, and 81,858 on the surface. There were no women employed underground, but 26,353 were employed in open workings and 24,093 in surface works, which represents about half the strength of male workers employed in these two categories of work. The daily average number of persons employed in coal mines was 201,989 or about 66 per cent of the total number of workers in all mines; and in metalliferous and mica mines and quarries 103,355, composed of 75,931, men and 27,442 women.²

1. Report of the Royal Commission on Labour in India, 1931, pp. 106-107.

2. Annual Report of the Chief Inspector of Mines in India, 1940, pp. 1-3. (By 1944 the number of workers in coal mines had increased to 247,073 including 19,865 women underground and 41,562 women on the surface and in open workings; the shares of Bihar and Bengal of the total labour force were 154,844 and 64,491 respectively. Report of the Indian Coalfields Committee, Vol. I, 1946, p. 181),

The statement below shows the average daily number of workers employed in mines during the years 1939, 1940 and 1941 in the various provinces:—¹

		1939	1940	1941
1. Assam	...	2,463	2,704	2,723
2. Baluchistan	...	617	707	834
3. Bengal	...	60,965	65,643	65,431
4. Bihar	...	166,394	180,845	200,577
5. Central Provinces	...	41,466	49,421	49,722
6. Bombay	...	3,890	3,420	1,203
7. Rajputana	...	1,312	1,403	3,768
8. United Provinces	...	1,579	2,283	2,377
9. Orissa	...	576	638	775
10. Punjab	...	5,828	7,378	5,308
11. Sind	...	142	173	259
12. Madras	...	14,549	14,339	12,862
13. Delhi	...	1,265	810	1,179
14. N. W. F. P.	...	7	6	...
Total		301,054	329,770	347,018

It will be noticed from the above statement that the largest number of mine workers is employed in Bihar, i. e. about 60 per cent of India's total. Although predominantly agricultural, Bihar is endowed with unrivalled mineral resources which have attracted a large number of organized mineral industries, the most important of which are coal, iron-ore, copper, mica and limestone. The total number of workers employed in mines and quarries of all descriptions to which the Indian Mines Act is applicable was 170,217 in 1938, the corresponding figures for all mines in India being 303,191

1. Indian Labour Gazette, Government of India Department of Labour, Vol. I, No. 5, November, 1943, p. 124.

only. The following statement shows the number of mines and the average daily strength of workers in different mining industries in Bihar in 1938:—'

Name of Mineral	No. of Mines	No. of Persons Employed
1. Coal	365	122,018
2. Chinaclay	8	1,182
3. Chromite	13	782
4. Copper-ore	5	2,731
5. Fireclay	9	237
6. Gold	3	120
7. Gravel and Stone	60	5,389
8. Iron-ore	8	9,666
9. Kyanite	1	168
10. Limestone	16	3,291
11. Manganese	16	991
12. Mica	689	23,358
13. Sandstone	2	133
14. Slate	3	66
15. Steatite	3	85

SOURCES AND CHARACTERISTICS OF LABOUR SUPPLY

Man-power engaged in the exploitation of mineral resources in India is supplied both by local inhabitants of the mineralized areas, and by imported labour, immigrating from contiguous districts and borderland provinces. The mineral

1. Report of the Bihar Labour Enquiry Committee, Vol. I, Chap. II, p. 17, 1940. (There are many mines and quarries which are not subject to the Indian Mines Act and therefore the number of persons employed in them has not been included, although, the number of such persons is fairly considerable).

resources of Bihar and Bengal, areas of concentrated production, were first developed by aboriginal and semi-aboriginal labour, and these tribes along with other exterior castes still supply the bulk of the workers. The aboriginal and semi-aboriginal workers are drawn from such tribes as Baurias, Kols, Bhils, Mundas, and Oraons; whilst the exterior castes are represented by Chamars, Dosadhs, Julahas, Goalas, Doms, Kahars, Koiris, Lohars, Nuniyas, Telis, Mallahs, Pasis, etc. The strength of skilled and unskilled labourers of different castes and religions working in the coalfields of Bengal, Bihar and Orissa in 1921 was as follows:—¹

		Bengal	Bihar and Orissa	Total
Aboriginal	...	16,853	24,646	41,499
Semi-aboriginal	...	10,011	14,642	24,653
Non-aboriginal	...	6,479	59,347	65,826
Others	...	8,010	—	8,010
Total	...	41,343	98,635	139,978

It will be noticed that about 47 per cent of the workers in the coalfields of Bengal, Bihar and Orissa were drawn from the aboriginal and semi-aboriginal classes. In Bihar about three-fifths of the workers were drawn from the colliery districts, and one-third from other districts of the Province, the small balance being imported from other Provinces. In Bengal, on the other hand, about 40 per cent of colliery labour was imported from Bihar, Orissa, the Central Provinces and the United

1. Bengal Census Report, 1921, Pt. II, pp. 422-444. (Compiled).

Provinces. During the decade 1921-31, a large number of workers was recruited from the U. P. and the C. P., and the percentage to the total labour force increased from 9 to 12 in Bihar and from 2 to 6 in Bengal. On account of their comparatively greater adaptability and intelligence in mining operations and handling machines, and greater regularity and efficiency, there is preference on the employment of labour drawn from the U. P. and C. P. This tendency was still noticeable during the past decade (1931-41), although the proportionate increase of imported labour was not very significant, except for a sudden outburst of activity during the war period (1939-45) when the shortage of labour power had become critical.

Since the Royal Commission on Labour in India (1929-1931), there has been no marked change in the characteristics of mining labour. The Bihar Labour Enquiry Committee also noticed that whereas a vast proportion of unskilled labour is drawn from agriculture and mostly from the locality or neighbouring villages, some degree of inter-district and inter-provincial mobility of skilled workers is becoming prominent in mining areas. In the quarries in the Shahabad district a large number of workers have come from Palamau; while in the collieries workers come from many districts and far off Provinces and States. The nature and territorial origin of labour in Jharia become at once clear from an investigation conducted by the Bihar Labour Enquiry Committee.¹ One thousand and thirty budgets were collected from the colliery workers on the basis of representative samples. 850 workers who formed 84·2 per cent of

1. Report, pp. 26-28, Vol. I., Recommendations, 1940.

the total number were from Bihar, drawn from different districts: Hazaribagh (244), Manbhum (225), Monghyr (172), Gaya (145), Bhagalpur (21), Santal Parganas (20), Patna (12), and others from Palamau, Shahabad, Arrah, Singhbhum, Ranchi and Chapra. The remaining 165 came from outside the Province: C. P. (73), U. P. (35), Bengal (22), Orissa (14), Punjab (8), C. I. (6), and others from Cutch, Nepal, Bundelkhand and Madras. 404 families out of 1,030 were landless who had to leave their native places in search of employment. 54 families had migrated even when employment was available at home to earn higher wages in the coalfields. 163 families had to migrate due to excessive pressure on land. 27 had left their homes to escape prosecution for debts and to pay the landlord and the money-lender their dues. 20 families attributed their migration to the decline of village industries. A large proportion of workers from the depressed classes as found in the collieries lends some support to the contention that they have left their native places to escape social indignities and to earn higher wages as miners than to subsist on a dole of customary allowances offered them by their hereditary calling. Further, 445 families did not visit their homes at all, and were permanently settled in the coalfields; 224 families visited their homes once a year, and 120 twice a year. A moiety of workers visiting their homes, stayed from 2 to 4 weeks at home, whilst the majority of the remainder took 8 to 16 weeks in all.

The most important characteristic of labour supply in the Indian mines is that practically the entire labour force is drawn from rural areas. The workers, as is natural and to be expected, are agriculturists primarily, and miners accidentally. Most of them possess land in their villages, and are avail-

able for mining work only in off seasons. A certain proportion of the labour force, consisting mainly of aboriginals, is permanently settled within the coalfield areas. Many of them were attracted by the grant of land for cultivation, and they live on the colliery property, devoting a part of their time to cultivation. The proportion so settled is higher in the Raniganj than in the Jharia fields. Other aboriginal workers live in villages at short distances, and offer themselves for work at varying periods as occasion arises. Even the landless aboriginal classes spend a part of their working hours in every year in agricultural work in their villages, and are not permanently settled on the coalfields. The non-aboriginal workers, drawn largely from the north-east of the C. P., east of the U. P., and north Bihar, which now form an increasing minority of the labour force, are more assiduous and regular workers. While nearly all these workers are directly or indirectly connected with land in their home region, they are not usually agriculturists in the same sense as the aboriginals and represent a comparatively more permanent and regular sector of the labour force in the mining industry. Since mining is the chief source of their livelihood, they are properly called "miners," a term of appraisal in the classification of working classes in the country.

Labour supply in the mines shows marked variations throughout the year, the volume of the stream of supply shrinking and expanding in harmony with agricultural seasons. Accordingly, the number of workers in the mines is at its height about the end of February and early March, but

1 Report of the Royal Commission on Labour in India, p. 115, 1931.

gradually diminishes as the harvesting of winter crops approaches near. In April there sets in a counter current of migration from the fields to the mines, and employment again reaches a high mark. At the outbreak of the summer monsoon, the exodus begins with renewed strength, and about the middle of July, when sowing and transplanting operations require a large number of agricultural workers, not unoften at a substantially higher rate of wages, employment in mines sinks to the lowest level. Thereafter large numbers return to the mines in September, retreating again in November when the rice crop is maturing, and once again the labour force is considerably reduced till it is replenished by the influx of workers in the end of February. These seasonal movements of workers are reflected by the amount of minerals produced in Bengal and Bihar. Labour supply in the mines thus varies inversely with the vagaries of the monsoon, i. e. good monsoon, good harvests, poor supply of labour; dry year, poor harvests, abundant supply of agricultural labour in the mines.¹

Apart from seasonal absences, there are other irregularities in the miners' working time which have their effect both upon their earnings and upon the industry. It is the miner's custom to come with his family from the village and to work for two or three days, and then return home when he has earned a certain amount of wages which he desired at the moment. Thus, few miners work the full six days a week and punctual attendance is rare in many of the mines. Reasonable estimates indicate an average of 4 to 4½ days' work per week

1. For seasonal fluctuations of labour supply in the Raniganj and Jharia coalfields, see Table No. 5, p. 34, *Labour in the Indian Coal Industry*, by B. R. Seth, 1940.

for the individual miner during the weeks he is at work.¹ The combined effect of seasonal absences and the short week worked by most miners is to reduce the number of the average miner's working days to well below half the days of the year. Hours of work are also frequently irregular. The Royal Commission on Labour in India observed that irregular daily attendance was associated with long working days. So long as a man, on the days, when he goes underground, is required, or even permitted, to remain there for 12 hours at a stretch, it is unreasonable to expect him to present himself for work on 6 days in the week, even if it were legal for him to work more than 54 hours a week.² The shortening of hours, therefore, appears essential if greater regularity of attendance is to be secured. The introduction of 8 hour shifts will tend to eliminate many of these irregularities and would be of immediate benefit both to the employers and the employees.

The floating character of labour supply in the Indian mining industry, marked with seasonal shortage and surplus and irregularity of work, tends to reduce the efficiency and earnings of the workers and add to the cost of recruitment. In order to assure a regular and adequate supply of workers throughout the year to the mining industry, and to improve the material and social welfare of the workers, there is need for creating a permanent class of miners in the country. The "farmer miner" class must yield ground to the "miner" class born and bred in a different atmosphere. Our efforts should be directed towards obliterating all agricul-

1. Report of the Royal Commission on Labour in India, 1931, chapter VIII, p. 117.

2. *Ibid*, p. 120.

tural ideas out of the miners' heads, and until a mining class entirely apart from the agricultural class is created, little progress to the industry and prosperity to the workers can be promised.' The means to obtain a settled class of miners are varied and many, but it is too much to expect the miners to give up their hereditary occupation (agriculture) unless the management undertakes certain reforms to make mining an attractive occupation. It is not difficult to evolve and stabilize a miners' class provided that food and work, with a comparatively more secure and comfortable life than is possible in villages, can be assured throughout the year, and that other privileges, e. g. old age pensions, sickness and unemployment insurance, maternity benefit, gratuity and provident fund, etc., become their legitimate rights. The mining occupation can be made attractive by the improvement of housing and sanitary conditions in mining areas, by offering living wage and better conditions of work, by giving greater security of service and providing amenities of life, by promoting efficiency through education and training, and by maintaining cordial relations between the employers and the employees.

METHODS OF RECRUITMENT AND CONTRACT LABOUR

Perennial factories, for the most part, have now passed the stage at which it is necessary to go beyond the factory gate to secure labour. Conditions are different in the mining industry, where workers have to be induced against many economic and social forces to leave their homes and settle down in the mining areas. Many of the workers

have to be brought from distant areas and, in consequence, colliery proprietors have often to spend large sums of money in recruiting.

There are two indirect methods of recruitment, that is, the Zamindari system, and the Contract system, in almost all mines in India. The method of local recruitment by the management is not possible due to scarcity of workers in the mining centres which are usually remote from inhabited tracts. The Zamindari system is an old practice of recruiting labour for the opening up of new mining areas. Under this system labourers are tempted to the mining areas by the offer of cultivable land free of rent, and the holdings remain effective only so long as the labourers are working in the mines. The recruitment of aboriginals, who are at present settled miners in Raniganj, Jharia and Giridih coalfields, was made on this basis in the early stages of the development of the mining industry in Bihar and Bengal. This system is now defunct because of certain serious drawbacks inherent in it. The labourers devote more time to the cultivation of their plots than to mining work and the raisings of cultivating miners per head are lower in comparison to non-cultivating miners. Moreover, this method is not a remedy for the seasonal absenteeism of the miners, nor does it cut the employer's wage bill. Though this method of recruitment has been repeatedly condemned as uneconomic and undesirable, it is still being utilized indirectly by some colliery owners.¹

The second method of recruitment is by contractors, and in the coalfields of Jharia, Bermo and

1. Report, The Indian Coalfields' Committee, 1920, pp. 57-71; and Report of the Royal Commission on Labour in India, 1931, pp. 118-119.

Karanpura, the mica mines of Hazaribagh and Gaya districts, the limestone quarries in Dumrakhar Boulia, and Khalari, the iron-ore mines in Noamundi and Gua, and the manganese mines in the jungles of Singhbhum, the contractor is largely relied upon for recruitment.' Several methods of recruitment under the contractor system exist: under one, the collieries make a special contract with recruiting contractors for the supply of labour which is then employed and paid by the mine management, the contractor receiving a commission at an agreed rate; under the second, a minor sardar brings a gang to the mine and is responsible to the manager for the work undertaken by the gang; and under the third, a Raising Contractor is engaged whose function it is to recruit labour at his own expense, to raise coal out of the pit, and to load it into the wagons. The second method (as in quarries in Bihar) and the third (as in collieries in Bihar and Bengal) are most commonly prevalent. Whichever the system adopted the actual procedure of securing recruits is much the same, i. e. the recruiter or his agent visits the village, makes advances and defrays all expenses of bringing the workers to the mines.

Contract labour is widespread, and is conspicuous in quarrying and mining in different parts of India. In Bihar and Bengal most of the coal is raised by contract, and in all collieries, work, except safety measures, ultimate supervision and management, is done through raising contractors. In Central Provinces and Madras Presidency the quarrying work is mostly given on contract basis, and not unoften the contractors employ sub-con-

* 1. Report of the Bihar Labour Enquiry Committee, Vol. I, p. 33, 1940.

tractors to complete the tasks. The system of engaging contractors as intermediaries is also widespread in Central India and Bihar. In the Boulia and Chunhatta quarries in Bihar, for example, a group of workers undertake to perform an assigned task on the piece-rate system and the payment received for it is shared by them according to individual contributions. It is usual for this group to have a mate or 'sardar' (sub-contractor) who accepts the responsibility for the work on behalf of the group (and in some cases he works with them as one of their number). The contractor who recruits and employs the workers makes advances of money and until repayment is made in full the workers remain in his employment. Many workers are thus brought to the mines in debt bondage for periods extending from 5—10 years. In fact, whilst the contractor is employer-cum-financier, the sub-contractor or the 'sardar' is the supervisor or manager. The net result is that the contractors and sub-contractors retain an adequate margin of profit which trenches upon the earnings of the workers.' This is the inherent defect of the contractor system. The contractor system has, therefore, been widely resented to alike by the employers and the employees—by the former because they exercise no control over labour power, and by the latter because they are subjected to much exploitation and serious abuses. It is an unnecessary wedge between the employer and the worker, for in the absence of a direct relation between them the interests of both are likely to suffer. There are also chronic complaints of long hours of work, under-employment, payment of wages in dribblets and under-

1. Mukerjee, R. K., *The Indian Working Class*, 1945 p. 64.

payment, and absence of security and general welfare.

On account of these, inevitable drawbacks, the 'raising contract' system in mining and the 'sardari' or sub-contractor system in quarrying, are being gradually supplanted by the 'sarkari' or the direct recruitment system, under which the management sends out its own recruiters. The 'sarkari' system has proved more economical, and has given greater security to the workers. The Royal Commission on Labour had also recommended the gradual abolition of the contract system and had emphasized the superiority of the direct ('sarkari') system.' In order that labour power in the mines be stabilized, the recruitment of workers may be controlled on the lines of the Tea Districts Emigrant Labour Act of 1932, and workers recruited by licensed agents in different areas may be permitted to be forwarded only through the forwarding depots of the Mine Owners' Association. The workers should have the right of repatriation after 3 years of employment, or permitted to move out freely to whatever place and in whatever capacity they prefer after serving for this minimum term. The organization of a Central Mine Owners' Association, with regional branches, will not only make pool recruitment possible, but also facilitate the exchange of workers and their regional distribution from areas of shortage to those of surplus. The extension of the Mines Act and Payment of Wages Act to all mines and quarries, irrespective of the number of workers employed and the depth of the working, and the appointment of Labour Officers for a close inspection of working conditions deserve immediate consideration.

1. Report, *op. cit.*, p. 119.

EMPLOYMENT OF WOMEN AND CHILDREN

The employment of women and children in mining and quarrying has been considerable in the past, but since the exclusion of women from underground work and the prohibition of child labour under 15 years, their strength has shown a marked decline. In 1901 there were 30,488 women miners and 5,147 child workers, or 29·2 and 4·0 per cent, respectively, of the total labour force; the corresponding figures for 1924 being 87,434 and 63,811, or 33·8 and 2·5 per cent respectively. It was not until 1929 that the law relating to the prohibition of employment of women underground was put into effect, except in exempted mines where exclusion was to be gradual and completed by July, 1939* but the Government ordered their total prohibition for underground work from October, 1937. Consequently, the number of women miners in 1938 formed 11·7 per cent of the total colliery workers, and only 9·2 per cent in 1941. In order to counteract the shortage of colliery labour and due to marked diminution of coal output that was hampering industrial production during the war, the Government of India as a temporary measure permitted the work of women underground in the mines, and 19,491 women were found employed at the close of the war (1945).

The effects of the exclusion of women from underground work were that most of the able bodied women migrated from the collieries and open workings, about 10 per cent were estimated to have been employed on such jobs as loading

*. Except in coal mines in Bengal, Bihar and Orissa, and the C. P., and salt mines in the Punjab, the exempted mines included all but 3,000 women employed underground and of these 3,000, nine-tenths worked in the mica mines.

wagons, stacking coal, road making and petty earth works, and the remaining (about 60 per cent) became idle in the villages. The most obvious was the loss of wages, to the women for whom alternative employment was not available, and a corresponding reduction in the family income. Not until opportunities are offered by the establishment of auxiliary industries which may employ women, miners will bring their families to the mining area. The Royal Commission on Labour recommended that, in order to mitigate hardship amongst women excluded from underground workings, employers should reserve for them vacancies occurring among surface workers, wherever practicable. Finally, the loss in the average earnings of the miners' families must be increasingly felt as time goes on, gradually undermining their efficiency and stability, unless it is counteracted by an increase in their wages and the raising of the standard of home life.

In mining, as in other industries of India, the wages of female workers are substantially lower than the wages of males. The foremost cause of the low earnings of women is attributed by the employers to their low standard of efficiency. Far from it, the lower rates are due to the old conservative notions that women were inferior to men; as such, they are offered only such work as does not require much skill and where only low payments are possible. It has been found, however, that aboriginal women, who form the bulk of woman labour supply, are stronger than their males, and more efficient in carrying and loading, and given the required training and opportunity should perform just so good if not better work as is expected from males. In the Central Provinces collieries a male loader was in recent years getting 10 per cent

higher wages than a 'kamin' (woman loader) for loading one tub of coal, though in many cases female loaders were found to be loading more tubs than the male loaders.¹ Lower rates are offered to women workers also to discourage them from employment when male labour is obtainable in plenty. Moreover, the employers have to provide for more rest, better conditions of work, greater supervision and increased supplementary benefits, specially in sickness and child-birth, where a large number of females are employed. Women's wages, therefore, on parity with men's wages, are dearer to the employers. When regard is paid to the better health and efficiency of female workers, and to the greater economic necessity of an independent female earner with a large family of non-working dependents, or even to the desire of some women to supplement their husbands' or parents' income, there can be no justification for low wage rates of women as compared with men in the mining industry. To this end, it is futile to convince the employers, or to allow adjustments to come from a slow change of public opinion or from forces of fictitious Mining Labour Organizations. Immediate reforms by legislative action should become imperative when a socio-economic evil so prominently, by attaching the stigma of sex, denies the right to claim equal wages for workers with equal quantity and quality of effects. The wage rate should be guided by capacity and ability, based upon health, energy and training, and not on age or sex composition. In mining industry, therefore, equal wages should be payable both to men and women, and equal opportunities and benefits should be given to both. This measure should, in

1. Labour in the Indian Coal Industry *op. cit.*, p. 138,

the long run, stabilize man-power in the mining industry, because a larger number of able-bodied women are likely to be attracted from the fields to the mines.

***AVERAGE DAILY EARNINGS OF WOMEN
WORKERS IN RELATION TO MALE WORKERS
FOR ALL WORKERS**

		Men Annas—Pies			Women Annas—Pies		
1891	...	1	—	9	1	—	3
1901	...	2	—	6	1	—	6
1911	...	4	—	6	2	—	6
1921	...	10	—	0	7	—	0
1931	...	9	—	6	5	—	9
1941	...	11	—	0	6	—	6

The Labour Investigation Committee (1944) observed that in contravention of the provisions of the Indian Mines Act, both women and children appear to be employed underground in mines in the Provinces of Bihar, Rajputana and Madras. Women are employed for the removal of muck and earth from the pit to the mouth, and children for minor carrying jobs. The fact that women and children can also be employed on the surface of mines, probably, tempts them to earn additional incomes for their families by going underground, and the employers are always in a position to exploit cheap labour. Workers collude with employers, in the employ of women and children, due to their basically low wages, whilst the violation of the Mines Act was also connived by the Gov-

*Figures show the consolidated average rate for all kinds of work in mines and quarries in British India. Compiled from Annual Reports of the Chief Inspector of Mines.

ernment due to the shortage of labour during the war. Unless the wages of male earners are raised to a sufficiently high level, no real remedy of the evil can be found.

In 1938, the Employment of Children Act prohibited the employment of children below 15 years of age in certain specified occupations, but mica manufacture was not included amongst those specified occupations. These establishments are of special interest as they employ a large number of children of tender ages (5-12 years). The Act was amended in 1939, and the employment of any child who had not completed his twelfth year was prohibited in any workshop connected with mica cutting and splitting, but provisions of the Amending Act did not apply to domestic manufacture of mica splittings. Consequently, the number of children assisting family workers in cottage workshops at home between 5 and 12 years of age is fairly large, whilst the employment of children in small-scale mica factories is prevalent on an amazingly wide scale in open defiance of law. The total strength of child labour in the mica industry in 1944 was as follows:—'

1. No. employed in mica mines (Bihar)	...	1,250
2. No. in Bihar mica factories	...	2,250
3. No. working at home (Bihar)	...	4,500
4. No. employed in all categories in Madras and Rajputana	...	5,000
Total	...	13,000

1. Report on Labour Conditions in the Mica Mining and Mica Manufacturing Industry, Government of India, 1945, p. 10.

The main arguments advanced for the employment of children are: (1) children get an early start in learning their family occupation, (2) in the absence of educational facilities, and high cost of education, children are made to utilize their time in cottage workshops, and (3) they supplement the family income. It has been noticed that children have to work for long hours and are subject to 'sweating more in cottage workshops than in factories. Seldom do they acquire skill at tender ages or contribute substantially to family income. These arguments are therefore futile. If arrangements for free primary education are adequately made, and the Employment of Children (Amendment) Act is vigorously enforced, the employment of children of tender ages will be effectively controlled, and a more efficient supply of literate adolescent and adult workers will be in the best interests both of the employers and the employees.

WAGES OF WOMEN AND CHILDREN IN MICA INDUSTRY

		Women		Children				Relation of Children's wage to adult's wage (percentage)
		As.	Ps.	As.	Ps.	As.	Ps.	
1. Cutters	...	...		3 0	to 5 0			33—55
2. Sorters	...	...		2 6	to 5 0			33—55
3. Splitters	...	8 0		3 6	to 5 6			39—60
4. Condensers and Wrappers Markers.		8 6			7 6			60—63
5. Book-Form Splitters	...	8 6			5 6			50—55
6. Screeners	...	6 0		3 0	to 4 0			50—66
7. Packers	...	...		4 0	to 5 0			50—62

1 Report on Labour Conditions in the Mica Mining and Mica Manufacturing Industry, Table I, p. 10, 1945.

EARNINGS AND STANDARD OF LIVING

The problem of wages in the mining industry is most complicated on account of wide variations not only in the earnings but also wage-rates under the contractor system, the preponderance of depressed castes and aboriginals who easily acquiesce to exploitation, the comparative isolation of quarries and mines which affords little protection to workers, and the absence of organized unionism and defective labour legislation. Wages in the mining and quarrying industry are usually fixed by contract and are some of the lowest in Indian industries. It has been established by various official and non-official investigations that the bulk of the workers have failed to secure from the industry wages which can afford an adequate living. In the accompanying table are shown the average daily wages paid in December, 1939, in each important mining field in India.¹

From the table it would appear that the earnings of workers, both underground and in open workings, are slightly higher in Jharia than in Raniganj. Comparison with the Pench Valley coalfields in Central Provinces shows substantially higher earnings for underground miners and appreciably higher earnings for miners in open quarries in the Central Provinces; but the figures for loaders are appreciably lower and for females in open workings substantially lower than in the Jharia coalfield. Within Bihar itself, the conditions in Giridih coalfield are, on the whole, appreciably better than in Jharia and Raniganj, except for the females. Highest wages to females are paid in Assam coalfield, Bihar iron-ore and coal following not very closely. Although very high rates are

1. Annual Report of the Chief Inspector of Mines in India (for the year ending 31st December, 1939), p. 6, 1940.

paid to miners and skilled labour in the Punjab salt quarries for underground work, the rates are fairly moderate for surface work in comparison to coal, mica and other mines. Perhaps the lowest rates are paid to skilled and unskilled labour, both in open workings and surface works, in the stone quarries of the United Provinces and Central India.

The Bihar Labour Committee observed that the miners on an average work for about 4·5 days a week. Under normal conditions a cutter and a loader of average efficiency can, working together, fill three tubs a day. The average rate for a standard tube of 30 cu. ft being six annas. At this rate, and with average attendance of 4·5 days a week, the earnings in a month will be about Rs. 10-13-9 each. An investigation conducted by the Bihar Labour Enquiry Committee of 1,030 families during June-August of 1939 showed an aggregate income of these families at Rs. 18,330-2-0 which comes to Rs. 17-12-2 per family or Rs. 11-12-9 per worker in the family.¹ Taking again an average of 4·5 working days a week the average monthly income of miners and loaders in Pench Valley (C. P.) comes to Rs. 13-8-0 and Rs. 8-8-0 respectively. The average monthly income of an underground miner in the Punjab salt quarry comes to Rs. 44-7-0, and that of a skilled labourer Rs. 19-15-0; of a miner in open workings in the U. P. stone quarries Rs. 12-6-0, in the Punjab slate quarries Rs. 7-14-0, in the Central Provinces limestone Rs. 6-12-0, and in Bihar china clay Rs. 3-6-0 only.² In the following table are given the average earnings of the chief categories of

1. Report of the Bihar Labour Enquiry Committee, Vol. I, p 200, 1940.

2. Calculated on the basis of daily wage rates recorded by the Chief Inspector of Mines for December, 1939. Report. *op. cit.* p. 6.

workers in the coalfields for the year 1937 and 1944:—¹

		1937			1944*		
		Rs.	a.	p.	Rs.	a.	p.
Miners and Loaders	...	10	3	2	17	0	0
Trolley-men	...	9	2	1	15	0	0
Stone-cutters	...	9	1	8	15	0	0
Loaders	...	6	13	7	10	0	0
Earth-cutters	...	6	6	8	10	0	0

It is evident that the earnings of miners have appreciably increased during the war period (1939-1945), due largely to scarcity of labour and a rise in the general wage level in other industries of the country. The rates in 1944 include rations given free or at concession rates along with a cash allowance daily. It should be noted, however, that the cost of living index reached the highest trend in the coal-mining areas, a peak of about 500 per cent between April and August, 1943, which showed that the earnings of the miners had not risen in proportion to the inflation of prices of necessary commodities of consumption. Since about three-fourths of the number of families in the coalfields fall within the income group Rs. 5-20, their earn-

1. Mukerjee, R., *The Indian Working Class*, p. 107, 1945

*Including free ration and cash allowance of annas three daily,

ing cannot be labled adequate for even a moderate standard of living:—'

Income Group		Percentage of families	Average monthly income per family*		
1.	Rs. 5 and below	...	2'0	Rs. 4	a. p. 1 10
2.	Rs. 5 to Rs. 10	...	13'1	8	1 4
3.	Rs. 10 to Rs. 15	...	30'6	12	4 7
4.	Rs. 15 to Rs. 20	...	23'4	16	9 4
5.	Rs. 20 to Rs. 30	...	21'1	24	9 6
6.	Rs. 30 to Rs. 40	...	7'1	34	11 4
7.	Rs. 40 to Rs. 50	...	2'8	43	5 6

The chief causes of low earnings of workers in collieries are the depressed state of coal industry, low tub rates, seasonal irregularities and absenteeism, exclusion of women from underground work, the poor quality of workers, chaotic character of coal trade and transport, and absence of labour unionism. Whatever the causes of low earnings, which may

1. Report, Bihar Labour Enquiry Committee, p. 117, 1940, Table XXIII.

*Total number of families 1,030, with an aggregate income of Rs. 18,130-2-2 and average monthly income of Rs. 17-11-2 per family. Adding to these the money value (Rs 4-9-2) of free goods and services (e. g. housing, fuel, conveyance, water supply, maternity and sickness allowance, medical aid and kerosine oil), we get an average earning of Rs. 22-4-4 per family.

be attributed to the industry and workers alike, there can be no denying the fact that a total monthly earning of Rs. 22-4-4 per family is too low when regard is paid to the risks and difficulties of this occupation. On the part of the miner, regularity of work on six days in the week, and on the part of the management efficient organization and adequate equipment, could go a long way in improving the material welfare of each other. The coal industry has tried to establish that due to a severe depression in coal industry higher wages can not be paid to the miners. The Bihar Labour Enquiry Committee felt that for the continued depression in the coal industry the management itself was to blame in large part. Unless methods are found to reduce overhead costs and to eliminate undesirable competition, the industry will never recapture its former prosperity or ever retain it. One of the methods was to form a syndicate to regulate production, price and sales. In England the Central Sales Agency controls the price of coal and the Government of India should also initiate such a statutory body for effective organization and control.

These investigations have established beyond doubt that the bulk of miners of all categories throughout the country have failed to secure from the mining industry wages which can afford an adequate living. What is true of the coal miners in Bihar is, in greater measure, true of the workers in all mines and quarries. The comparative monthly earnings of workers in different industries will at once point out that the wages of miners are the lowest in India:—

1. Report on "Industrial Labour in India," International Labour Office, Geneva, 1938, p. 290.

Average Monthly Earnings (1937-38)

	Rs.	a.	p.
1. Central Provinces limestone quarries ...	6	12	0
2. Miners and loaders in Bihar ...	11	12	9
3. United Provinces stone quarries ...	12	6	0
4. Miners and loaders in Central Provinces	13	8	0
5. Sorters in mica industry (Bihar) ...	17	8	0
6. Punjab salt quarries ...	19	15	0
7. Cawnpore textiles and leather works ...	25	8	6
8. Bengal Railways ...	27	2	4
9. Nagpur textiles and others ...	29	8	0
10. Madras textiles ...	33	12	3
11. Bihar Engineering ...	42	0	0
12. Ahmedabad textile and manual ...	44	7	2
13. Bombay all industries ...	52	4	6
14. Bombay textiles ...	55	0	9

It is evident that wages in mines and quarries are ridiculously low as compared with other industries. The gulf is wider where local aboriginal labour is preponderant in mines, or where the chain of sub-contractors has gone to grotesque lengths and immigrant agricultural labour in minefields is held in debt bondage akin to agricultural servitude. No doubt mining work is irksome and hazardous and its level of wages should bear no comparison with what the landless agricultural worker is doled out in the villages. Under conditions where the

industry is tempted to exploit ignorant aboriginals and agricultural proletariat, thereby reducing them to the verge of serfdom and making their economic solidarity difficult to achieve, wage rates have to be safeguarded by legislation. The present economic position has continued too long and any improvement which has taken place in recent years has been too meagre to afford any assurance that the workers will of their own effort succeed in breaking through it. They have submitted to that position with a resignation which is rapidly turning into a sullen discontent. Neither in the interest of economic justice nor of social tranquility and industrial peace should the existing position be allowed to continue. It is high time that the State now introduced a Minimum Wage, adequate to promote health, efficiency and general welfare of the worker in the mining industry.

The two principles on which the minimum wage should be determined are: the cost of living measure, guided by the normal needs of the workers; and the capacity of the industry to pay, viewed in the light of prospects of the trade. All minimum wage legislation represents an effort to harmonize these principles, and aims at securing a rate which, in a period of full employment, will yield a wage which avoids the reproach of sweating and permits of a reasonable and wholesome living in a civilized society. In keeping with the characteristic social structure of the Indian society, a living wage must be sufficient to maintain the worker and his family. The living wage is, therefore, a family wage; and the family consists of man, wife, and three children.

In compliance with the principles involved in determining the living wage, the Bihar Labour Enquiry Committee had recommended the

following scale.¹

		Rs. a. p. (per month)		
1. For colliery workers (Bihar)	...	...		
Miners	...	20	0	0
Loaders	...	15	0	0
Others	...	13	0	0
2. For Limestone and Iron-ore quarries ..		13	0	0
		(or equivalent piece-work rate)		

The above scale applies to an adult male worker. The wage of an adult female worker should be 25 per cent and of a child 40 per cent below that of an adult male worker. Dr. Radhakamal Mukerjee suggested a basic rate of 12 annas per standard tub of 30 cu. ft. of coal raised and loaded; in addition, a piece rate, which will enable miners and loaders to obtain the rest of their earnings by extra labour—extra remuneration being paid, over and above the basic tub rate for distance and difficulty of working faces or other handicaps.² This splitting up of the minimum statutory wage for the miners into 'basic' and 'extra' piece-rates will secure a living wage for all categories of miners and, by improving their efficiency, bring more prosperity to the industry as well. Since conditions have become harder in the post-war period, a minimum wage should be so adjusted as to bring a monthly earning of Rs. 30 per worker—the rate varying sympathetically with changes in the in-

1. Report, *op. cit.*, pp. 178-179.

2. The Indian Working Class, p. 119.

dices of cost of living in mining areas.

There is need for constituting by legislation a minimum-wage-fixing machinery for the mining industry in India, where wage-rates are exceptionally low and where workers, generally ignorant, weak and exploited, are unable to better their position unaided. A Minimum Wage Fixing Board should immediately be set up on the model of the Trade Boards in England. It should consist of an equal number of representatives of the employers and the employees, together with a few impartial persons, one of whom presides, the number of impartial members being less than one-half of the total number of representative members. Finally, the Payment of Wages Act should forthwith be introduced in all mines and quarries in order that such grave abuses as deferred payment of wages and unfair deductions could be eliminated.¹

WELFARE AND SECURITY MEASURES

Improvements in the standards and efficiency of workers will solve many of the difficulties of the mining employer and must be secured by better health, shorter and more regular hours, better conditions of work and safety measures, pre-employ-

1. The select committee on the Minimum Wages Bill which was presented to the Dominion Parliament on January 28, 1948, has added certain new clauses: to define what wages may consist of, to provide for authorization of supplies of essential commodities at concessional rates to workers and for the estimation of the cash value of wages paid in kind and of the concessions. The distinction between men and women as regards minimum wages has been removed. Provision has been made for the appointment of a Central Advisory Board to advise the Central and Provincial Governments in fixing and revising minimum rates of wages and to co-ordinate the work of various advisory committees and sub-committees,

ment training and adequate mechanical assistance, greater security of service, provision of old-age pensions, sickness and maternity benefits, and other social amenities and opportunities for the development of personality. Health, safety, and welfare measures, while designed to benefit labour, should equally benefit employers. The eradication of many evils, with the employment of ignorant and economically weak aboriginals and landless agricultural proletariat in the mining industry, though not within the capacities of the workers themselves lies well within the range of State control and to a large extent, within the powers of mine owners. But the melancholy fact is that, instead of considering welfare measures as productive investments, the management regards them as barren liabilities; and whatever scanty efforts have so far been made being entirely undertaken by private social welfare agencies or by the workers themselves. Small wonder then that mining labour has so long lagged behind its industrial confrere in occupational efficiency, standard of living, and general social progress.

Laconic and sporadic ameliorative measures have during recent past been taken by some large collieries and enlightened individual mine-owners to improve the lot of their unvocal helots and toiling serfs, but, in view of the immensity of the welfare problems affecting no less than three-and-a-half lacs of workers, the existing efforts are neither adequate nor convincing. Not unoften certain mine-owners have established labour welfare departments to attract disgruntled recruits from other primary industries, mainly agriculture, or to brow-beat public opinion; and certainly praiseworthy are those who have done the least and acclaimed the most. There can be no denying the fact that the

State has also meted out a step-motherly treatment to mining labour in comparison to factory workers. Its policy, in this connection, has throughout been one of "wait" and "watch," of "delays" and "resignations," of "pretermisison" and "connivance," with the result that neither is the existing situation controlled nor the future safeguarded. Apparently under the Indian Mines Act (1923), the Chief Inspector of Mines, under Government of India, is responsible for labour conditions, but the Act is extremely inadequate in respect of provisions relating to labour. The Payment of Wages Act (1936) is applicable to the mines only by a special notification to the effect. So far, however, no such notification has been issued and consequently in regard to payment of wages grave abuses still prevail. The Workmen's Compensation Act (1923) is, of course, applicable, but here the position is that while the Chief Inspector of Mines and his officers are required to investigate the cause of an accident, adjudication for compensation is entrusted to the Provincial Government's Commissioner for Worker's Compensation. Moreover, the Workmen's Compensation Act according to Schedule II (v) does not apply to "any excavation in which on no day of the preceding twelve months more than fifty persons have been employed or explosives have been used and whose depth from its highest to its lowest point does not exceed twenty feet." This means that many quarries, surface and open workings, which record quite considerable number of accidents, remain outside the scope of the Act. The Mines Maternity Benefit Act (1941) applies to all mines, but in actuality its operation appears to be infructuous; even the Employment of Children (Amendment) Act of 1939, which ostensibly applies, is almost a dead letter. Thus, it is

obvious that the administration of mining labour has been allowed to remain hopelessly muddled and complicated by divided responsibility on the one hand, and inadequate enforcement on the other.

Having regard to the nature of occupation, health administration of miners is a matter of cardinal importance. The problems associated with health are always difficult; they are much more in the mining industry where both the strenuous and hazardous nature of work and the poverty and ignorance of the workers contribute to recurring outbreaks of epidemic diseases. Much of the misery arising from sickness and disease can be prevented by the consumption of balanced diets, sanitary surroundings, supply of clean drinking water, and adequate medical aid. More often than not the average miner consumes a diet deficient in quality (due largely to his low earnings which do not permit the consumption of green vegetables, ghee, sugar, animal fats and milk in adequate quantities). The result is a lack of stamina and a lowered resistance to disease. If the purchasing power of the miners is increased to enable them to consume wholesome and nourishing diet, the incidence of preventable diseases is likely to fall considerably. Moreover, publicity work and guidance in regard to diet and nutrition should be a legitimate sphere of activity of the Welfare Department.

Diseases which miners suffer from may be caused by mining operations and working conditions, e. g. 'silicosis, tuberculosis, asthma, dyspepsia, rheumatism,' etc., or attributed to climate, configuration and natural vegetation of the mining area, e. g. 'malaria, cholera, dysentery, influenza, hookworm,' bowel complaints, and skin diseases. The incidence of silicosis is fairly high. It is a disease

of the lungs and is attributed to the inhaling of quartz dust at the time of dry machine drilling. The best method of saving the drillers from this disease is to introduce wet-drilling. Respiratory diseases are caused by insanitary conditions and strenuous nature of work, which can be avoided by rest pauses and better conditions of work. Skin diseases, ulceration, and hookworm are due to infection imported from dirty surroundings of homesteads; whilst dyspepsia, cholera, diarrhoea and intestinal troubles are caused by the presence of harmful minerals in the water supplied to workers, or by the use of water from dirty pools and stagnant reservoirs. Adequate arrangements for the storage and supply of good drinking water and water for washing purposes, sanitation and proper drainage of the settlement area and the suburbs are 'a prior' considerations for the improvement of health of the miners. For supplying water for domestic consumption to the collieries in Jharia, the Jharia Water Board was established in 1915, but unwholesome and filthy pit water is still extensively utilized for bathing and washing purposes. The problem of water supply for drinking and cooking has not yet been tackled in right earnest in the mica mining areas of Bihar, whilst in other mines and quarries water-supply still remains a cry in the wilderness.

Under bye-law 27 of the Bihar and Orissa Mining Settlement Act of 1920, colliery owners are required to provide medical facilities for all resident employees on the collieries. But collieries employing less than 30 workers are exempted from maintaining a doctor, and those employing between 30 and 1,000 workers may keep a part-time doctor. There is no obligation on the collieries to maintain a hospital. These arrangements are

not satisfactory, because medical aid is not to be determined so much by mere numbers as by nature of work involving risk of injury or illness and the geography of the mining area. If the resources of the different collieries and quarries could be pooled together by agreement amongst themselves, even the present level of expenditure will greatly increase the efficiency of the services. This scheme will provide a fully equipped central hospital for each area, besides private hospitals and dispensaries maintained by each mining unit. If possible, the Provincial Governments should subsidize these co-operative measures, and lend active support in matters of supply of drugs and appliances, expert personnel, and periodical inspection.

The Provincial Governments have no doubt created a few Mines Boards of Health, which are also entrusted with the initiation of labour welfare measures in the coal mining industry, but, although the need for such Boards is much greater in the micafields and quarries which lie in forests infested by malaria, hookworm, ankylostomiasis and other diseases, no such Boards have yet been created. The functions of the the Hazaribagh Mines Board of Health (1939) are: to supply wholesome water, to look after sanitation, drainage and conservancy, to provide for and regulate the housing of residents whether permanent or temporary, to prevent the outbreak and spread of epidemics, to provide for the treatment of the sick by the establishment and maintenance of hospitals and dispensaries. The Bihar Labour Enquiry Committee felt that neither was labour representation on this Board adequate nor was it functioning in a practical way to enable them to form any judgment about its usefulness.¹

1. Report, *op. cited*, p. 196.

The Jharia Mines Board of Health (1922) also neglects a fair representation of labour and is, therefore, in spite of some good work done in the past, tending to become less active. Mines Boards of Health should be established in all mining areas, large or small, and have large representation of labour. This will result in more vigorous and sustained effort to improve the conditions of workers. The success of the Boards will largely depend upon the executive capacity and initiative of the Chief Medical Officer of Health, who, provided with adequate funds and freedom of work, should be able to deal effectively and expeditiously with problems of health and welfare as and when they arise. These Boards should be made independent and autonomous bodies and should have the full right to deal with their employees.

The housing problem in mining areas presents features distinctly unique. The life of the mine has a direct bearing on housing policy. The shifting of mining operations leads inevitably to the shifting of habitations and permanent settlements are therefore, not always possible. The difficulty of obtaining sites with a solid foundation is a handicap to substantial housing schemes; whilst subsidences caused by underground workings are constantly encroaching on suitable sites and have resulted in damage to existing accommodation. The building of temporary houses is encouraged by the existence of short-period leases, a practice in Central Provinces where mines are sub-let by owners for five to ten years, and the sub-lessee has no interest in providing costly and commodious houses for a short period. Since mining settlements are located in isolated regions, far from centres of trade and industry, capitalists are usually not forthcoming to invest their money in house-building for workers

in mines. Moreover, there is a constant flux of labour force from one mining centre to another, between agriculture and mines, and between mines and urban factories. During 1920-29 over 400 mines had closed down, leaving 25,000 displaced workers to seek employment in larger and better organized collieries.' The housing problem, therefore, becomes complicated by the movement of labour from the mines which have been closed down, to the working mines and quarries, and such tendencies of labour movement are more pronounced during periods of boom and slump, peace and war.

Housing for all resident labour is generally provided rent-free by the mining companies, but certain classes of workers prefer to live in their own villages and may walk considerable distances to and from their work. There can be no doubt that houses in villages are better than some of the depressing lines of 'dhowrahs' (huts) of the coalfields and the leafy shelters (sheds) in the quarries. In both Raniganj and Jharia coalfields, all housing construction is governed by regulations laid down by the Jharia and Asansol Mines Boards of Health, which have been able to effect considerable improvements. Both 'pucca' houses and 'kacha' huts are provided. The country tiled gabled roof 'dhowrahs' (one room houses) are the most common, both for individuals and families. Many 'dhowrahs' have varendahs which are used as kitchen. The standard size of 'dhowrah' is $10 \times 10 \times 7$ ft. The natural result is that the 'dhowrahs' are overcrowded and congested, the average number of adults per 'dhowrah' ranging between 3-5, and of

children 1—2, in different minefields.¹ Since colliery houses are generally built in continuous rows, back-to-back, they are ill-ventilated and dark, and offer little privacy. Sanitary arrangements in the housing areas are by no means satisfactory. In many labour settlements there are no bathing and washing arrangements, most of the population using surface tanks for these purposes; no drains, no latrines, no urinals.² The smoke nuisance makes the atmosphere foul. At Kolar, the settlements of gold mining labour consist of bamboo cottages with corrugated iron sheet roofs which are overcrowded and become unbearably hot during the summer. Drainage and sanitation are unsatisfactory. In the mica mines of Bihar, Madras and Rajputana the hutting is most unsatisfactory, and more serious than the effects of overcrowding and scarcity of water supply are the dangers of epidemics in the unhealthy areas where habitations are provided. In all the smaller mines and quarries, little provision is made for the housing of workers. The quarry workers are often huddled up in small flimsy structures (hovels) built by them of mud, tree leaves and branches, occasionally with tiled roof. Here sleeping, cooking, rearing of children, and nursing the sick are all to be done under untold privations. Yet there is no protection against the blazing summer sun or the drenching monsoon rain; no rest after the day's toil, or relief from the sickening atmosphere of the mine.

1. Seth, B. R., *Labour in Indian Coal Industry*, 1940, p. 171.

2. Report of the Royal Commission on Indian Labour, Vol. I, p. 280. The Bihar Labour Enquiry Committee found that in 1938 about 65 per cent of the collieries had no dustbins; 84 per cent of the *dhowrahs* were without drains, and 98 per cent without latrines.

There is no denying the fact that the unsatisfactory nature of housing accommodation and unhealthy surroundings have a deleterious effect on the health, energy, efficiency and morals of the working classes. Sickness, morbidity and mortality are to a large extent responsible for absenteeism and irregularity of work in the mines. Absenteeism is chronic, and no worker reports on duty for more than 4 or 5 days in the week.¹ In 1936 the death rate in Jharia and Asansol mining settlements was 25·9 and 18·8 per 1,000 respectively, as against 16·8 in rural areas, whilst the percentage of infantile mortality due to congestion in one-room houses ranged between 71 and 77 of the total. Physical degeneration of children due to overcrowding and congestion is noteworthy: "boys living in single-room houses lose about 4·7 inches in height and 11·7 lbs. in weight, as compared to those living in four-room houses, while girls from one-room houses are 14 lbs. lighter and 3·3 inches shorter than girls coming from four-room houses."² There is also high maternal mortality, mostly among those who stay longer in 'dhowrahs.' In the Jharia mining area, although females constitute 70 per cent of the male population, the female mortality is 91 per cent of mortality among the males. Besides a high incidence of sickness, bad housing conditions have seriously affected the morals of the mining community. Drunkenness, debauchery, and gambling are widely rampant, and loathsome venereal diseases have induced that lassitude of mind which reacts against the health and efficiency of slum dwellers.

1. In all mines 7 per cent of the daily working strength was in 1939 recorded absentees: Jharia 3·0, Raniganj 6·8, Central Provinces 6·1.

2. Seth, B. R. *Labour in the Indian Coal Industry*, p. 196.

These observations bring home the fact that any improvement in the standard of living and efficiency of miners must be preceded by housing reform. A comfortable house, commodious and well ventilated, in a clean surrounding will not only tone up the health and spirits of the worker, but will induce him to spend most of his free time in rest and pleasing atmosphere. Among the principal duties of the Mines Boards of Health is to provide for and regulate the housing of both permanent and temporary workers, and although the bye-laws of the Boards have laid down regulations relating to the minimum size of rooms, verandah, white-washing, ventilation, sanitary arrangements and water-supply, there is everywhere overcrowding, inadequate ventilation and lighting, defective drainage and filthy surroundings. Moreover, the standards for model houses laid down by the Boards early in the twentieth century do not meet the changing requirements of the workers and their families to-day. These must now change. According to an expert opinion, not less than 500 cu. ft. of air space is necessary for an adult person, and half the space for a child. There is need for building separate standard houses for individuals and families, and the evil of overcrowding should be effectively stopped by Government supervision., Adequate latrine accommodation, provision of washing and bathing, to meet the needs of both sexes should be erected at suitably convenient distances. Even where permission is granted to workers to build their own houses, the minimum requirements should be insisted upon. For new constructions, reconditioning and repair, financial aid should be given to the workers, otherwise a regular programme of construction and reconstruction can hardly be carried out. The Provincial Governments should

also arrange to lend money at a moderate rate of interest to mine owners for implementing their house-building schemes, and undertake the opening of settlement areas with roads and railways. The housing problem must be solved by co-operation amongst the workers, mine-owners and the Governments concerned, because this enterprise is for their mutual benefit and mutual survival.

The regulation of hours and conditions of work in mines, in the light of the present day tendency towards the reduction of hours of work, the demand for adequate leisure and humane conditions of work, deserves careful consideration both by the employers and the State. Although the weekly hours are limited to 60 above ground and 54 below ground, the actual hours of working are usually much shorter than the legal limit. Both in Jharia and Raniganj coalfields the hours of work for the miners and loaders are 44 a week underground and 45 in open workings. In mica mines and some iron-ore mines in Bihar and Orissa there are normally eight-hour shifts, while in manganese mines in the C. P. and mines in Madras the day's work varies between $7\frac{1}{2}$ to 9 and 7 to 8 hours respectively. In the various classes of mines covered by the Mines Act the weekly hours of men varied between 34 to 50 underground, 36 to 54 for open workings, and 39 to 53 for surface work, the corresponding figures for female were 25 to 49, 38 to 49, and 27 to 51 respectively. The hours of work are now sought to be reduced in the social as well as economic interests of the mining community. This tendency is the natural result of the phenomenal progress in the technical skill and mechanization in industry which have increased the productive power of labour, the desire for more leisure to enable the workers to develop personality and dis-

charge their duties as citizens, and the reaction in India of the international development towards the limitation of hours of work in all industries to reduce unemployment. Since hours of work are already shorter in mines than the legal limit, it will not be unreasonable if by enactment a uniformly lower limit is prescribed, so that the employers may become alive to their responsibilities and the workers may be able to adjust themselves to the changing conditions. It is encouraging to note that the tripartite Industrial Committee on coal-mining has adopted a 48 hour week for coal-miners. There is, however, the need of introducing eight-hour shifts in collieries to remove the monotony of underground work which the workers become used to in day time only. More urgent is the introduction of rest-pauses for all workers, both to restore physical vigour and mental peace. Unbroken work often exerts a retarding influence on speed and optimum output. The miner needs such a relaxation both due to the strenuous nature of work and climatic enervation. During these rest-pauses, if colliery canteens could supply tea and refreshments, the energy and efficiency of workers are likely to be stimulated. Alongside, the conditions of work should be improved by proper ventilation and lighting, protective measures against accidents, and adequate provision of tools and appliances. Steady pace of work in wholesome atmosphere and under proper supervision minimize fatigue and listlessness, and promote efficiency and discipline.

It is necessary that men, women and children should be protected against carrying loads which are too heavy or performing operations which are arduous and hazardous. There is need in India for prohibitory regulations fixing maximum loads for each class of worker according to age and individual

capacity, In U. S. S. R., for example, the maximum load to be carried by men and women is 40 lbs., while it is 44 lbs. in Italy, 50 lbs. in Great Britain, and 55 lbs. in France. In keeping with the poor physique of workers and the climatic conditions of the country the maximum load for men should be 35 lbs., for women 25 lbs. and children of 15 years of age 15 lbs., for open workings and surface work; but for underground the maximum limits should be 30 lbs. and 20 lbs. for men and women respectively. The Indian Mines Act should be amended to include provisions for the regulation of load. Moreover, shelter during work and rest should also be made available in surface workings of mines and quarries. Protection of workers, women and children in particular, is necessary against sun and rain. Shelters should conform to standards prescribed by the Chief Inspector of Mines.

Considering the character and composition of the working classes employed in mines and quarries one cannot fail to realize the necessity of providing suitable educational facilities to adult workers and their children. After the elementary conditions of physical well-being have been ensured, welfare work should be directed to the education of workers with a view to increasing their efficiency and adaptability. Adult education should include both general knowledge, the three Rs. and basic technical instruction; whilst nursery training and basic education, with mining bias, should be imparted to children between the ages 7 and 14 years. Education in mining areas has been grossly neglected, particularly technical training and child education. Whatever little work has been done, it is outside the sphere of welfare work undertaken by the mine owners. The efforts of social service agencies and labour unions have got to be strength-

ened both by local bodies and the management. The Mines Boards of Health should immediately take up the opening of adult night schools where, in addition to general education among the illiterate workers, technical education should be imparted by various experts. A theoretical training in mining work, the use of tools and machinery, devices of self-protection, drilling and loading, etc., will improve the quality of miners and loaders. Needless it is to point out that the education of adults and children should be free, and after health and sanitation, education should have a prior claim on the funds of the Mines Boards. All educational establishments, e. g. Childrens' Nurseries, Elementary Technical Schools, Night Schools for adults, should be supported by recurring grants-in-aid from the Provincial Governments and the Local Bodies concerned, and non-recurring grants from the Central Government.

Mining is a skilled occupation, therefore, along with general and technical education, practical training is also important. No doubt it is a hereditary occupation and the skill and experience of one generation is handed on to the next. It will, nevertheless, appear to be a wise policy to allow the children and newly recruited adults to work under skilled miners for a number of years before they are allowed to enter the mine. The British miners enter the mine as boys and work under expert technicians at the coal-face, and only after several years of practical experience are they considered competent to take charge of a working place.¹ Safety at a working place depends to a large extent on the skill and experience of the workers themselves, for, it is almost impossible to foresee the endless dangers of cracking roofs and crumpling sides

1. Read, M., *The Indian Peasant Uprooted*, p. 111.

to which the workers are exposed. Practical technical training will no doubt minimize accidents. The higher accident rate in Indian mines is due partly to natural conditions of the mine, but largely to the ignorance of miners, and not unoften to misadventures of the untrained and inexperienced miner. Besides reducing the risk of accidents, more often fatal than not, technical training will enable the workers to manipulate tools and machinery with economy and efficiency and the mine-owners will be able to introduce more modern and complicated methods and machinery which are likely to improve the industry and the standard of workers in it.¹

A strongly felt need of miners in India is provision during sickness, and old-age pensions. On account of very low family earnings, little can be set aside for sickness or unemployment, births or deaths, invalidity or old age. These indeed are the principal contributory causes of indebtedness, with all that debt entails under existing conditions. The Indian miner, at the time of his greatest need, finds himself destitute of resources, and it is for these periods of financial stress and strain that the utility of Sickness and Maternity Benefit, Old Age Pensions, and Benefit Funds can be fully appreciated. Many employers in India grant sick leave on full pay in addition to privilege leave, and a few establishments pay also a subsistence allowance (3-5 annas per day) for the period of illness. But these privileges are denied to miners and loaders and unskilled workers who are employed on piece-rate wages. The East Indian Colliery at Giridih, how-

1. Robertson, E. H., "Mining Education," Presidential Address, Trans. Min. and Geol. Inst. India, Vol. XX, Pt. 1. 1927, pp. 16-41.

ever, has built a Benefit Fund from contributions of 6 pies per rupee from all miners and loaders whether direct employees or working under contractors. Such contributory funds are instituted by several other collieries also in Bihar, where the fund is utilized for sickness and maternity benefit, sickness of children, births and deaths, disability not arising out of accidents, support of orphans and widows, and old age pensions. It is encouraging to note that, as in all other fields of social amelioration, the progressive employers have paved the way for the diehard capitalist exploiters. It is now time that smaller colliery owners and quarry proprietors, in order to give effect to such benefit schemes, formed themselves into groups and offered succour and security to their weaker employees. Experience has shown that the workers are ever-ready to co-operate in such schemes and have nowhere grumbled over deductions made from their earnings for the institution of Benefit Funds. Legal enforcement of such a scheme can easily be done through the Mines Boards of Health or the Local Mining Boards, or the Mines Department.

In the administration of Welfare Funds the interests of the deserving and the needy, irrespective of their category or class in the labour force, should always be placed in the forefront. The success of the Welfare Fund should, wherever warranted and expedient, prepare ground for the gradual introduction of Compulsory Sickness Insurance, Pensions and Provident Fund, and Unemployment Insurance. The prospects of this social security programme rest on a tripartite co-ordination of workers, employers and the State. There can be no industrial peace and social progress if the employers continue to enjoy all the profits of industry and the workers only its hazards and burdens. Nor

can the State continue to function peacefully if the working classes are left to carve out their destiny in chaos and confusion produced by the growing social distance between the "haves" and the "haves-not." All signs of the times point out to but one measure of social reform, viz. a comprehensive scheme of social security for miners, without which neither can labour supply in the mining industry be stabilized, nor can the standard of living of the working classes substantially elevated. Social security measures have now to be re-oriented to wider economic and psycho-social needs of the mining community, and the State is the natural lever of such socio-political reconstruction.
