

A PLAN
of
Provincial Reconstruction

SYED MAHMUD

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A PLAIN
OF
Provincial Reconstruction
(as illustrated by Bihar)

BY
SYED MAHMUD, Ph. D.,

Minister of Education, Development and Employment, Bihar.

Ring out the grief that saps the mind,
For those that here we see no more;
Ring out the feud of rich and poor,
Ring in redress to all mankind.

Ring out a slowly dying cause,
And ancient forms of party strife;
Ring in the nobler modes of life,
With sweeter manners, puner laws.

TENNYSON.

Superintendent, Government **Printing,**
Bihar, Patna,
1939.

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First published, May 1939.
First impression, May 1939.

TO
SAWAHARLAL NEHRU

A life in civic action warm,
A soul on highest mission sent,
A potent voice of Parliament,
A pillar steadfast in the storm.

TENNYSON.

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FOREWORD

BIHAR is a large province with a very dense population. The land, particularly in the Gangetic valley, is exceptionally fertile. There is no crop which cannot be grown. There are places where three crops can be and are raised in a year on the same plot.

She is watered and drained by the Ganges, the Gogra, the Sone, the Gandak, the Bagmati, the Kosi, the Kamla, the Trijuga, the Subarnarekha and a host of other rivers and rivulets. Many of them impart fertility to her soil—but they also cause devastating floods and sometimes convert smiling areas into swamps and hot beds of malaria.

Bihar is immensely rich in mineral resources. She has coal, iron, copper, mica, manganese and what not. She has all kinds of clay and other material which can be used

for pottery, glass and cement. She used to and can again produce immense amounts of saltpetre and other chemicals. She produces large quantities of lac and other forest products. Her forests, whether owned by landholders or by the State, are vast and apart from other products can give an immense quantity of valuable timber.

The people are simple and industrious. It is not without hard work that they can extract crop after crop from their scanty land. They are skilled in agriculture and know the benefits of irrigation, manuring, good seeds and rotation of crops. The implements they use are old and simple and yet effective in a measure and such as they can afford with their limited resources. The so-called lower class people who have not become sophisticated and delicate on account of education in schools and colleges are also enterprising to a degree. They are to be found serving as domestic servants, field labourers, factory workers, load carriers, boatmen, petty vendors of wares and shopkeepers in Bengal, Assam and Burma and further East in Siam. Indo-China and

Malaya. They have gone in large numbers to various colonies abroad like Mauritius, Fiji, Trinidad, British Guiana and so forth.

It is not without reason therefore that Bihar was at one time, not in the very distant past, the centre of Indian culture and civilisation and the history of India was but the* history of Bihar written large. Yet to-day Bihar is in a bad way. In spite of the richness of her soil and the skill and industry of her people there is shortage of food in the Province. The large State forests with all the staff of experts employed by the Government yield practically no revenue and one has to thank the stars that the department is not run as a deficit department. The life-giving rivers have become a menace and the residents of the areas within the reach of their floods, spend anxious days and nights during the rainy season and have to eke out a miserable existence after ravages wrought by floods, which are increasing in extent, frequency and intensity from year to year. The holdings of cultivators are so small that a very high percentage of them has become uneconomic and are being cultivated because

their owners have nothing else to do. Any great improvement in the methods of cultivation appears well nigh impossible, as the *kisans* cannot afford to purchase improved implements, good seed and manure.

Such industries as have been developed in the Province have been financed by people belonging to other Provinces. The people of the Province have not the capital to invest in them; but even more than capital they lack necessary enterprise, skill and experience. They are unable to develop and exploit the immense natural resources—agricultural mineral, industrial and other.

The health of the Province is deteriorating and the population is becoming weaker in physique, less able to resist disease and short lived. The very enterprise they show in going to distant places in search of work and bread also exposes them to infection of malaria, Kala-azar and other diseases which they import to places that used to be health resorts.

Bihar is thus a Province par excellence which stands in need of a well thought out plan of reconstruction. The Hon'ble

Dr. Syed Mahmud, the Minister of Education and Development, has attempted in the pages that follow to sketch out such a plan of reconstruction. I shall not endeavour to summarise here what he has written in this book. The whole thing has to be studied. Nor is it necessary to agree with every suggestion made or with every opinion expressed. The book is being published at a time when we are all thinking about the subject. It has cost him much labour and thought and the result is a comprehensive review of existing conditions and an equally comprehensive plan of reconstruction. If our Ministry is able to carry into execution even a part of the plan adumbrated in the book, it will have served the Province well. I am aware that the constitutional powers of the Ministry are limited; but more limited than the constitutional powers are the resources upon which it can draw to embark on a big reconstruction. Yet I do not see why a fair beginning cannot be made. We have to remember one thing. We may think in terms of big plans and big industries; but we should not neglect small things

The genius of our race has shone best in simplifying big things, in getting big things done with the help of small instruments. The unsurpassed wisdom of our sages is bottled up in short Sutras and aphorisms; their great skill in art and agriculture is typified in the small *takli* and the village plough. While we shall utilise all that modern science has taught us, we shall not neglect the simple implement and the simple craft of the village craftsman. In a healthy and well proportioned combination of the two lies our future. The lesson of the middle course is as necessary today as it was when the Great Buddha trod the fields and slept in the orchards of Bihar and gave to the world his great lesson of the middle path.

The Hon'ble Doctor Syed Mahmud has to his credit legislation which has helped the sugar industry in no small measure and the great impetus to a campaign of mass literacy. He is awaiting the report of the Education Re-organisation Committee which has been appointed to make suggestions for overhauling the educational system of the Province. He has in the meantime taken steps to

introduce the Wardha scheme of education in an experimental way. He has been consulting experts regarding industrial development. We are hoping that the result of all this will be a well thought out plan of reconstruction which will be adopted by the Government and carried out in due course. In this connection I only wish to sound a note of warning. We are apt to underrate the importance, vitality and economic value of cottage industries. We have not got at our disposal the necessary information and skill regarding them. They are also over-shadowed by the gigantic factories of modern times. They are nevertheless of vital importance in our economy. I hope the amount of space allotted to them in this book is no indication of the importance the author attaches to them and I trust that when a final scheme of development is adopted they will be given their due share of attention.

RAJENDRA PRASAD

SADAKATASHRAM : *4th March, 1939*

PREFACE.

IN the following pages an attempt is made to lay out a tentative and illustrative programme of planned development for the Province of Bihar on a comprehensive scale. It is a programme of progressive development spread over a period of ten years, in the first instance, within which predetermined objectives of development in each department of provincial life must be attained. It commences with a wholesale stock-taking of the economic situation in the province, estimating both the assets and liabilities of the people of Bihar and laying down their aspirations for the goal of development desired by them. The goal, it need hardly be added, is both concrete and easily attainable, even with the equipment and facilities the Province can command today. The ways and means for attaining the designed objective in each department of the provincial life have been sketched in general

outline without any attempt at a greater degree of precision or concreteness than is warranted by the circumstances under which we have to work.

The planned programme of provincial development and reconstruction being tentative and illustrative only it does not commit any party or authority to the principles and practical suggestions laid out in the following pages. The programme is indeed an ambitious and comprehensive one. But it is in no way a representation of opinions and sentiments of any but the writer alone among those responsible for the government of this Province. The help—very substantial indeed—which the author has received in formulating the programme which appears hereafter will be indicated in a full measure in its appropriate place in this preface. But even at the risk of repetition it must be added that the responsibility for the sentiments, expressions or suggestions given in the following pages rests on the shoulders of the writer alone.

The basic principles of the programme of **planned** reconstruction and development in

this Province are, it must also be observed in no way incompatible with the existing order of society in this country, as the writer does not feel justified in working on assumptions of a total disregard of the existing social order and the accepted maxims of policy by the Indian National Congress in this behalf. The present writer, on the one hand, does not feel himself called upon to assume a basis for wholesale economic reconstruction which might go against the accepted policy of the Congress. On the other hand he would entreat his likely critics on grounds of fundamental principles of reconstruction if they do **not** find their pet phrases echoing through these pages. There **is little** value in words if the ideas and ideals on which we proceed to reconstruct are essentially identical even though expressed differently. The programme outlined in these pages should **not**, therefore, be condemned whether on **the** ground that it sounds socialistic or that **it** does not read socialistic enough. **I would like** my critics if they would **be** so indulgent **to** assess the effective value of each idea **or**

suggestion on its own merits without being prejudiced in any direction by the mere force of phrases.

The plan outlined in these pages has had to be prepared on inevitably insufficient data. Bihar is particularly lacking in the necessary statistical and other relevant material to prepare comprehensively such vast programmes as may be indicated in the following pages. The writer has accordingly to request the reader to be indulgent in this regard and to make his own allowance for the results based on such data as one could find. Moreover the plan is necessarily in general outline. Details in every instance will need to be filled in later by people with the requisite experience in the matter, if only the general principle is accepted that a planned programme of Provincial development is needed and that we should set about it in some such manner as has been outlined in the following pages. Perhaps the Planning Board may take up the same question from a wider standpoint and make the resultant plan for the entire country even

more comprehensive than the present one. Even the action hitherto taken by the Bihar Government in particular directions which might form part of the plan, if and when one is made, has been barely mentioned, simply because the writer does not desire to obscure the broad features of the main plan by introducing such minute details of particular action.* Moreover, the action hitherto taken was a spasmodic action without any correlation and co-ordination with a basic plan of an all-round development. And so the course was inevitable to restrict these pages which follow only the sketching of the general outlines leaving the colours and details to be filled in by properly qualified and experienced committees of experts in the matter.

This plan of reconstruction is the result of discussion and exchange of views I had

*I will mention here only the large scale Electrification Scheme which the Bihar Government is about to launch. This will make available cheap power which may be used not only for the larger industries but will be within the reach of the ordinary villager for agricultural and cottage industrial purposes enabling them to increase and improve production, and thus to improve their standard of living.

with quite a large number of persons. But I have been very materially aided in preparing this sketch, by my friend Professor K. T. 'Shah, formerly Professor of Economics in the Bombay University and author of a large number of authoritative works on economic, financial and sociological problems of the country. His contribution is so considerable that in fact, but for some differences in the fundamental outlook, I would question my own right to appear as the sole author of this work since many constructive suggestions and many parts of the general reasoning are his. But Professor Shah is too convinced a Socialist to be satisfied with the attitude of compromise assumed in this work. He is, at the same time, too honest and too ardent a nationalist to withhold his help merely because in all respects the principles of social reconstruction he would adopt are not endorsed in their entirety in these pages. Finally, his language and general mode of thought is far more categorical and explicit to be quite convenient to a Minister of a Provincial Government,

and a member of an organised political party. The complete and exclusive responsibility for expressions of opinion are mine which occur in these pages; and the reader is requested to lay the blame, where it really belongs, and give credit, where it is really due. I have added this not to minimise in any way my deep debt of gratitude to Professor Shah for his unstinted aid which he gave me so ungrudgingly; but simply to make the position clear. My grateful acknowledgments are also due to Dr. Gayan Chand, Professor of Economics of the Patna College, and Mr. B. N. Sarkar, Senior Marketing Officer, for their kindly reading the proof and making many necessary corrections. In writing the Chapter on Industries I have utilized some of the materials contained in notes so very kindly supplied to me by Mr. J. J. Ghandy, General Manager, Tata Steel and Iron Company, for which my grateful thanks are due to him.

#

Last but not the least I must mention the **name** of Mr. S. M. Dhar, I.c.s., Education **and** Development Secretary. My thanks are

due to him also as I gathered many points on Industries during the course of discussion with him. It is a pity that owing to pressure of work, he was not able to read the book otherwise his suggestions would have been of great value, still he got time to go through the Chapter on Industries and made certain corrections.

SYED MAHMUD

PATNA : *23rd April, 1939*

A P L A N
OF
PROVINCIAL RECONSTRUCTION
Cos illustrated by Bihar).

CHAPTER I.

INTRODUCTION.

THE Indian National Congress has awakened the mass of people in India to political consciousness, and a new surge of life is now perceptible in almost every stratum of the country's social structure. This very awakening however has given rise to new hopes and new desires in the minds of the people for an all-round material progress. If we are able to harness properly this universal desire and direct it along right lines, it may be productive of a better and fuller life for the people. On the other hand careless thinking, haphazard planning and bad execution may lead to chaos and misery. Progress is not inevitable, it has to be achieved; and to achieve it, the **whole**

country must organize itself and move like one man with a definite aim and singleness of purpose.

The problem of problems before us is : Can India, or even one unit, say a province, be organized in the desired way for the purpose in view ? Such an organization would mean that every man or woman in the country must function as a part of the whole organization and must feel that the organization may break down if he or she does not function properly from his or her place. A mere collection of people is not an organization, just as a collection of its component parts does not make a machine. A machine starts moving only when all its parts are rightly placed and properly function from their respective places. If a small screw ceases to do its allotted work, the whole machine may go wrong or even break down. Human organizations are no exception to this rule.

One of the cardinal difficulties in the way of building up such an organization in India is the absence of political cohesion among the different classes or groups of people

composing the Indian nation. Possibly on account of constantly changing political frontiers and political allegiance in the country, the Hindu thought in the past travelled along the path of consolidation of social ties among people constituting the same caste and made the social organization of the country more or less independent of its political organization. This had its advantages, particularly in the direction of continuance of culture and tradition, but it certainly narrowed down the outlook of the people and weaned them over from territorial affinity. This idea of social affinity goes deep into the foundations of Hindu social structure, and political consciousness in terms of territorial integrity has never been able to take root in the country. The result has been that the people have developed a habit of mind to think in terms of the family, the sub-caste and the caste rather than the country, and are apt to ignore misfortunes outside their own immediate sphere and to rejoice at small gains that benefit the family or the community. The Muslims came with a much wider outlook and vigorous political

ideas which knew no barriers of caste or community. But in course of time Indian Muslims have also developed the same narrowness in outlook and the same habit of thinking in terms of the individual and the community. Needless to say, how difficult it is to build up any large-scale organization for economic regeneration on foundations of such narrow dimensions. The problem almost constitutes a challenge to our genius.

The problem has however to be solved if we are to take our place in the comity of the nations of the world. Difficulties there are and there will be, but I do not believe a thing worth doing unless it presents difficulties. At least the opportunity presented by there being popular Ministries in all the provinces in India, considerably facilitates the task of reconstruction in the provinces. Before, however, the task as such is attempted, it is necessary to take a general survey of the problem as a whole, taking stock of our resources as well as our liabilities or handicaps. In the event of our liabilities exceeding our resources, it would be also necessary, as a preliminary to any

programme of reconstruction or development to find out ways and means for making good these deficits.

What is this problem of reconstruction in the aggregate? It is, in the first place, a matter of increasing the productivity in a given province in all branches of material production, so as to increase the total stock of the national dividend, and so add to the possibility of improving the standard of living. This must include not only material commodities, but also the essential services which make up in the aggregate, along with material commodities, the sum total of human happiness. Food, clothing and house-room may be listed as the most prominent in the first category; education, recreation, amusement, travel, cultural growth in various ways, health, etc., may be scheduled as important items in the second category.

In regard to food, for example, in this province of Bihar, the total produce of all kinds of food is estimated to be 179,500,000 maunds produced in a year. Assuming the average food requirements per head to be 12 chhataks per day, there is a deficit in the

matter of food alone of 50,000,000 maunds per annum for a population, according to the census of 1931, of 32,558,056, which has grown considerably since, while the production of food has not grown in anything like the same proportion. In the above calculation it is assumed that about 10 million maunds of grain are needed for seed purposes. In this estimate, no allowance is made for either varying the food according to a proper diet for working efficiency for each worker, or in terms of a considerable mixed diet, with due regard to quality, so as to assure a requisite standard of health and development. And, of course, no allowance is made at all for those other needs of civilized man with respect to the services and amenities of civilized life which have to be paid for by exchanging this primary produce for such services and amenities. If allowance is made for all these the minimum necessary would be much greater and the deficit would in consequence be still larger

There seems to be no reliable estimate ever **made** of the wealth of the people of Bihar; but at present price it cannot be more than Rs. 3 per month per head **from all sources.**

In regard to clothing again, the present available standard per head is hardly enough to assure to each individual little more than a loin cloth in the course of the year. And even this is obtained by exchanging some food grains produced in the province, and so reducing the available quantity of food per head. If the standard requirement of the most modest kind is taken to be 30 yards of clothing per head per annum which would provide no more than three *dhoties*, two tunics, two underwears *plus* a single length for turban (or an equivalent for woman's needs), the total requirements within the province, without making any allowance for quality, variety, style, tailoring, etc., would be 100 crore yards roughly, or Rs. 25 crores worth clothing needs of the province at the lowest calculation. This, it may further be noted, does not allow for variations in the season, and consequent exigencies of climate particularly in the rainy or winter season. For a reasonable degree of civilised life of this kind allowance must be made; and if it is made, it would add to the requirements in

this respect. The surplus production of commercial crops in the province is hardly a fraction of this additional requirement of the people of Bihar.

The same tale may be repeated in regard to house-room. No census of housing accommodation is available. If the minimum requirement may be taken at 1,000 cubic feet, or hundred square feet per head, the housing requirements of even the poorest quality may run into a considerable demand for expansion in all industries connected with building materials. Given our climate, however, it may be said that housing needs in India may in many provinces, be taken to be much lower than any western countries. But the standard of space, stated above as the normal requirements in regard to each individual, may be assumed to be quite reasonable and modest.

These are all the most elementary needs of mere humanity. For the requirement of a civilized life, we must provide in addition such services as deal with education, amusement, recreation, health and culture of the population

As regards education, even if we desire no more than the mere acquaintance of the so-called 3 R's, our present deficit in this regard is appalling. In Bihar the average incidence of literacy is scarcely more than 9 men per every; hundred, including pupils in elementary schools, and 0.8 women per hundred. The average number of children between 7 and 14 years of age which may be considered as indispensable for education even up to this very modest and minimum limit, may be assumed to be over 60 lakhs. We had in 1937, 1,007,406 children at school in all the various educational institutions. In primary schools, we had 701,225 boys and 57,006 girls—758,231 in all. This shows what a tremendous deficit has still to be faced in the single matter of improving the education of the province to a very modest level. Less than 5.50 per cent of the male population, and less than .75 of the female population were at school all told.

More sophisticated requirements in connection with the amusement, or recreation,

* In 1938 the number of children at school increased to 802,264.

or the cultural needs of the present-day life are even more conspicuous by their paucity in this province. For a democratic Government, every citizen must not only be competent to understand but also be able to judge upon grave issues of national policy, as put before them by popular leaders or organized authorities and give his vote accordingly. For a proper appreciation of these problems, the citizen must have a knowledge more extensive than that promised in the rudimentary R's, and more intensive than is to be found in the average school to-day even of the highest grade. Even apart from the requirements of democratic Governments, we cannot expect that for all time to come, mankind would be content with those objectives of Self-Government which are at present the objective of the nationalist struggle in this country. Moreover, a society gets more and more civilized and complex, specialization of functions, or what we call division of labour, inevitably emerges. With this division of labour must needs come a division of occupations, and therefore specialization in training or

education, without which the collective work cannot be carried on satisfactorily. The kinds or forms of cultural development are innumerable and they tend to increase, diversify, and deepen as science advances. But it would be a very poor standard of national reconstruction which is content even at this time, with just the rudiments of the three R's.

In regard to health again, the rate of mortality in Bihar was in 1934, 25 per mille, as against 24.9 for the whole of British India, and birth rate 32 per mille as against 34 for the whole of British India. The death rate was higher than in any other province, except in the Punjab and the United Provinces, which recorded 26 per mille. The incidence of various diseases also compares unfavourably with other provinces. The prevalence of certain types of diseases whether epidemic, or not, which is capable of being counteracted by suitable public health measures is sufficiently considerable to warrant a special effort by Government in that behalf. Our average expectation of life in this province at birth is probably below 25

years. Is it too much to expect a modern Government to take steps so that the average expectation of life at birth be increased at least to 30 years within the next decade? By means of proper precautions against certain epidemic diseases, by adequate provision of clean water, by inculcating more sanitary habits of living, the average level of public health can be very considerably increased. The rates of mortality are particularly heavy amongst children below five years of age, and amongst women especially because of maternity. These are not matters of an inevitable ordinance of Providence against which mankind may be presumed to be helpless. On the contrary, these are quite possible to be combated by human science and human organization; and we may quite reasonably have to devote very substantial proportion of our available energy and resources to making up the deficit in this "behalf.

The same may be said with regard to other accessories of provincial economy in the cultural sense of the term, and all human progress in general, namely, means of travel

transport and communications. We have considerable natural resources in India, as well as man made resources in this respect, which are, however, not utilized as fully as* they might be. Bihar is peculiarly backward in this regard. It is thus doubly incumbent on Government in a province like Bihar to take steps which would increase the existing facilities, and bring them more and more within the means of the people. There are about 4,000 miles of metalled roads and about 26,000 miles of unmetalled roads in Bihar for a total population of $32\frac{1}{4}$ millions. The railway mileage in this province is about 4,000 miles against the total amount of traffic running in about 20 crores of maunds of goods.

Compared with other provinces this is very limited. Bihar has also considerable possibilities for water transport but these have been so far almost entirely neglected. With a little attention, with proper management and conservation of water-supply, with suitable water-side landing places, our rivers may quite easily be utilized for cheap inland navigation practically over the whole

province at least for 8 months in a year. Even such a wholly inland town as the city of Patna can be converted, as it once used to be in the past, into a port like Vienna, Berlin or Paris. To achieve that, we shall have to set aside a considerable proportion of the available energy and funds for making good the deficit in this behalf. Needless to add, improvement in roads and rivers would also increase substantially the material wealth of the province.

All these, it is scarcely necessary to add, are very rough standards. They are given by way of illustration only to indicate in what direction and to what extent new effort will be required for ensuring a reasonable degree of civilized amenities and a decent standard of human living within the province. These standards of our requirements in each department could be made much more definite by a committee of experts. And if it is made so definite, the kind of effort, the time and the direction in which it is to be undertaken, would become more easy to define. If we know what we want

and realise the necessity of making concerted effort to achieve it, we should be able to calculate easily, given our resources, the period within which we could achieve our objective. It is relatively unimportant whether the period of our programme is fixed at 5, 10 or more years.

CHAPTER II

OUR LIABILITIES, ASSETS AND OBJECTIVES

(a) *Liabilities.*

In considering our liabilities it is necessary to examine, not only those which by common consent are regarded as problems which we have to face, but also those which must be regarded as our liabilities in the light of a predetermined standard of living for our people. Our present standard of living must be regarded as much below the lowest level of what any pretence to a civilized society requires. It is below even the purely animal needs of maintaining a reasonable span of life. According to the ideals prevailing and the standards accepted on this subject, these potential liabilities may, no doubt, change from time to time. They may also vary according to the change in the environment. The nature and extent of the social liabilities may thus be changing constantly but we **may** assume it to be definite at least for a **given period** needed to carry out a programme

Taken collectively, the sum total of our liabilities may be divided into two main parts—(i) those of our own creation and (ii) those imposed upon us by outside circumstances.

Let us take first those which are or may be regarded as handicaps of our own creation, or for which our own history, tradition, social custom and habits of life may be considered ' responsible. I have already mentioned that the greatest obstacle in the way of organizing the country for economic regeneration comes from the traditions and habits of life of the people. It may here be observed that a great deal of this kind of handicap, from which material productivity in India is suffering may be traced to our own social institutions or customs. The same question, looked at from a different standpoint might involve an increase in our total needs, i.e. if we were free from those handicaps, our aggregate requirements or consumption would be materially increased. In other words, we may look upon these handicaps, either as reducing below its fair level, our aggregate available production; or

increasing our consumption requirements, beyond the available produce. This causes the national deficit already spoken of.

As regards these social handicaps, the most considerable are:—

Public Instruction.—The prevalence of illiteracy, or ignorance and superstition on a large scale, needs must make our productivity far lower than it is potentially capable of. Out of every 10 men 9 may be wholly illiterate all over India; and out of every fifty women, hardly one can boast of the merest rudiments of education of any sort. The task of abolishing this appalling illiteracy, both in the child and in the adult, and bringing up the average national intelligence to a predetermined level, is in itself a very considerable problem. Adult illiteracy is a great handicap in the way of progress *and* it is difficult to remove it except by a national campaign. We will deal with this problem in greater detail in a subsequent chapter. It becomes still more difficult and complicated, when we consider the question of education from the standpoint of the ingredients of education, standards of

education, various branches of education, the organization, institutions, methods and equipment of education—not to mention our peculiar difficulties in regard to the education of women, or of the backward classes. This, again, must be correlated, not only to our varied needs of special types of education and training, but also to the available surplus of national energy that we can bestow upon the task of abolishing illiteracy, and disseminating a given amount of knowledge and training all over the country.

The men and money needed for accomplishing this task is likewise a problem in itself. At present, in the province of Bihar we have 20,803 primary schools, those for boys as well as for girls, against a total requirement of over 30,000 such institutions, on the basis of at least one school for every two villages. These would mean considerable outlay on Recount of accommodation, equipment and maintenance. We educate in these primary schools 758,231 pupils of whom 701,225 are boys against the total number of school-going children in the province of nearly 60 lakhs. It costs today

Rs. 48,92,750 to maintain these schools and educate these children.

The system of primary education that is in vogue today and the methods through which it is imparted may not however prove suitable for the general mass of people. The prevailing system of primary education seems to have been conceived not with a view to make the mass literate but as a preliminary step to modern higher education which, what ever its achievements in other directions, has not helped in the development of village life. One of its main defects is that there is no relation between the knowledge acquired in the schools and its application in actual life. Many of the pupils in the primary schools learn things only to forget them. We must therefore adopt a system of education in which there will be some relation between the knowledge acquired and its practice in actual life.

The scheme of educational reconstruction, popularly known as the* Wardha Scheme, aims at solving the problem of our mass education through a system of handicrafts. It is designed to inculcate the spirit of

earning while learning among the pupils who will be trained both in mind and body. It is unnecessary to describe the scheme in detail here as the details and implications of the scheme are well known to the public. In Bihar, carefully planned experiments on this scheme of education have been undertaken, the results of which will be awaited before its adoption on a large scale.

Whatever may be the system ultimately adopted, given the immense leeway to be made up in this single branch of provincial reconstruction, we must be prepared to face a, very heavy increase in expenditure. We have at present 30,488 teachers in primary schools on an average pay of Rs. 9.98 per month. We would need, however, 150,000 teachers even at the rate of 40 pupils per teacher.

We have next to consider the problem of secondary education. If at least 1/10th of the total child population is to be educated to the level of the final stage of secondary schools, we would need 3,000 additional schools of that kind educating 6 or V lakhs boys, as against the present total of 1,050

•High and Middle English Schools educating 177,472 pupils in all classes. Allowing for all economics and adjustment needed or possible for a more efficient functioning of these institutions, we should need at least one crore extra per annum as against the present cost of Rs. 47 lakhs on those schools to provide this complement of the provincial need in this behalf.

Of the occupational, vocational or technical institutions, and of the higher collegiate, research and professional education we need not say much more at this stage, beyond observing that we suffer from the same deficiency, as in other branches. The general problem of ways and means in this regard will be examined a little more fully in another place.

Public Health.—Our liability in regard to poor physique, bad nutrition', and the low average of the expectation of life at birth, may be traced to this same cause of illiteracy ignorance, and superstition. Its aggregate ravages are difficult to analyse. But one obvious consequence is a substantial reduction in the sum total of our available

productive energy. The problem of improving the general level of public health and sanitation in India is thus of importance second only, if at all, to that of liquidating illiteracy.

Social Customs and Debt.—Another such handicap of our own creation may be found in our marriage and cognate social customs, which involve a very considerable expenditure. These occur, probably, with undue frequency, and occasion unproductive debt, that in itself will further handicap production. Or, put differently, it adds to what may be called unproductive consumption of the people. While we may not be able to touch these ancient social institutions at their root,—(which is a matter for the nation collectively to tackle in the shape of general principles of policy elaborated in that behalf), we must bear them in mind while stock taking, and provide for them appropriate remedies, or at least neutralising factors, until they are finally liquidated, or radically amended by the nation collectively.

Fragmentation of Agricultural Holdings.
— **I**t is **also** to a large extent the result of

the prevailing social customs that the most considerable single source of producing new wealth in the country, namely agriculture, is severely handicapped. The law of equal inheritance among sons of a given holder of land leads, in successive generations, to repeated subdivision of holdings till the average comes to a most un-economical unit.

The problem of subdivision of holdings and of fragmentation of agricultural land is common to all provinces in India. In Bihar, the average holding consists of little more than 5 acres* while the minimum needed for efficient cultivation, as well as for supporting an average family of 4.5 in a decent standard of comfort out of the produce can not be less than 10 acres of the average land. It is a truism of agricultural economics that, when land becomes subdivided beyond a given point, its cost of cultivation increases in proportion. The question must be viewed so as to consolidate the scattered and

*According to the Bihar and Orissa Provincial Banking Enquiry Committee's Report, the size of the average holding was estimated in Bihar at 5 acres, in Chotanagpur at 10 acres, in Orissa at 4—5 acres; Cf., paragraphs 27-20 of the Report.

subdivided holdings into such single units of cultivation, as would not only meet the requirements in regard to food, etc., by an adequate yield for the population settled upon it, but also to provide the fullest employment for such an equipment,—human, animal or mechanical—in cultivation as is commonly available in this country.

Industrial Backwardness.—Our relatively poor productive equipment in general must also be regarded as a handicap, created in a large measure by ourselves. At any rate, it must be regarded as the outcome of our immediate past, and the traditions derived therefrom. India is lacking considerably in all those devices for increasing production, which may be summarised in the generic name of mechanisation, modernisation* or rationalisation of agriculture.

India is certainly deficient in producing herself modern technique or modern mechanical equipment for new wealth. But it must also be recognized that many of our existing handicaps in regard to modernising production of wealth have been deliberately caused by the Imperial domination and

competition by Britain. Owing to the absence of our own large-scale and mechanized industry our aggregate productive organization and capacity are brought to a distressingly low level. Many an available resource in the shape of raw material is either undeveloped, or allowed to go waste. What is still worse, many known resources for producing new wealth are allowed to be developed and exploited by non-Indian agencies. These in fact take away all the surplus, all the cream of such production. This is what we regard as visible or invisible drain of new wealth from India. If all the available and hidden resources of India are to be fully utilised, and if the still unexploited resources are to be properly developed, adequate modern machinery together with mass production is absolutely indispensable for certain classes of heavy and key industries.

Even in regard to agriculture, though considerable cultivable land is lying fallow from year to year, and still more land **may** perhaps be available for cultivation which is today regarded as uncultivable waste

none of these possibilities would be realized unless and until modern technique is resorted to for reclaiming such land, and utilized for the service of mankind. Further, even under the ideal of reviving all village industries and handicrafts, the technical equipment and organization must be re-cast if we would obtain the fullest benefit from these methods of production. The facilities for properly marketing their produce for financing the worker while he is working for grading, storing, transporting his wares to market, are all so insignificant or rudimentary, that the worker is handicapped in innumerable ways. Hence, apart from the competition of machine-made goods, the worker in his village handicraft is suffering from disabilities forced upon him by circumstances, which must be effectively and immediately remedied if this task is to be properly attempted.

Other Liabilities or Handicaps.—As regards our other liabilities, or those matters to which our existing available potential resources are pledged, the pride of place must, of course, be given to the innumerable

channels through which the material resources of India are withdrawn or drained-away. Thus India has to shoulder a very heavy public debt aggregating Rs. 1,500 crores in round figures. This is equal to the value of our entire national production of material commodities at the present price level. A considerable proportion of this debt is foreign and therefore involves a drain of wealth from the country which is of course greatly increased on account of large investment of foreign capital in trade and industry.

To this we must add costly, and largely foreign, services. These are maintained at exceedingly high salaries, and are allowed heavy pensions, and other innumerable allowances. These, taken along with the drain on account of foreign capital engaged in the most profitable industry and commercial or professional foreign enterprise in India, not to mention the still more invisible but most considerable drain on account of the shipping, banking and insurance commission charges, aggregate perhaps as **much** as 10 per cent or 15 per cent of the

actual production of material wealth in this country. This is mortgaged in advance on account of the politico-economic connexion between Britain and India.

Private Debt.—The problem of debt is not merely a question for the nation collectively to consider. In addition to the public debt, almost every primary producer has to shoulder a still heavier burden of private debt. The aggregate volume of agricultural and industrial debt in India is difficult to ascertain. Still more difficult is it to estimate exactly the annual burden imposed upon the primary producer on that account. Estimates of the agricultural indebtedness in India vary from Rs. 600 to over Rs. 1,000 crores; while the net charge on account of interest for this debt could not be less than 100 crores at a very moderate computation. The province of Bihar is no exception to this rule; probably it is more severely handicapped on this account. Its aggregate indebtedness was estimated in 1931 by the Banking Enquiry Committee at Rs. 155 crores for the entire province. For Bihar alone, as it stands now, it may well be taken

today, allowing for subsequent increase due to a variety of reasons, at Rs. 200 crores, with an annual dead weight charge of at least Rs. 30 crores. Nearly 80 per cent of this debt is owed by the cultivators proper. Very likely not less than a third to two-fifths of the total produce is being transferred, as soon as it is available, from the producer to the creditor class. This latter class probably consists of not more than 5 per cent of the total population, if even as much.

This burden, it is true, may not be regarded as a net drain from the country. It is a transfer of ready wealth from one class of citizens to another; as such, it occasions only a problem in distribution rather than one in production. Nevertheless it reduces the wealth of 80 per cent by one-third at least, and enriches 1/20th of the people by a like amount. It handicaps the producer to such an extent that the latter's productive capacity must suffer, and thereby also the aggregate productivity of the country.

Industrial, Commercial and Artisan Indebtedness.—In contrast with the debt of the agriculturist, the debt of large industries, and even of the small artisans, is a mere trifle in amount or in the incidence of the burden of interest, etc. But even here, the problem of finance for the manufacturing industry of India, whether on the mechanized large-scale operation or on the smaller scale of village artisans, is a most important problem. The organization of such institutions as the Co-operative Credit Societies has not succeeded to the extent their authors had hoped. The problem of financing capital in such small or large industries, as well as agriculture, remains acute as ever. Reorganization, therefore, of these credit institutions, and the remodeling of the central credit organizations of the country, namely, the Reserve Bank of India, with a view to provide adequate capital, to revive the nation's commerce, industries and agriculture must be amongst the most urgent and important problems to be considered.

increasing our consumption requirements, beyond the available produce. This causes the national deficit already spoken of.

As regards these social handicaps, the most considerable are:—

Public Instruction.—*The* prevalence of illiteracy, or ignorance and superstition on a large scale, needs must make our productivity far lower than it is potentially capable of. Out of every 10 men 9 may be wholly illiterate all over India; and out of every fifty women, hardly one can boast of the merest rudiments of education of any sort. The task of abolishing this appalling illiteracy, both in the child and in the adult, and bringing up the average national intelligence to a pre-determined level, is in itself a very considerable problem. Adult illiteracy is a great handicap in the way of progress and it is difficult to remove it except by a national campaign. We will deal with this problem in greater detail in a subsequent chapter. It becomes still more difficult and complicated, when we consider the question of education from the standpoint of the ingredients of education, standards of

Balance-Sheet of the Country.—Given these vast liabilities, and given our limited assets as shown more fully hereafter, it is but clear that, if we take the balance-sheet of the country as a whole, we find our liabilities far in excess of our assets. This excess is perhaps not easy to measure in money values. But it is certainly reflected very glaringly in the shape of progressive loss of vitality, weakening physique, falling efficiency and decreasing average expectation of life amongst the people,—which is a most grievous burden to bear,—not to mention steadily diminishing per capita material production.

As though this was not enough, special responsibilities have been imposed upon the head of the Executive Government, and special guarantee or safeguards have been added in the constitution to see that no undue relief is provided all at once from these burdens. All these render it all the more difficult to concert such effective measures as would put an end to these social deficiencies within a measureable time. This is not the

place to dwell upon the constitutional safeguards contained in the Government of India Act, which restrict the power of the provincial Governments to take effective steps against many of the social sores noticed above. It may, however, be mentioned, even in this place, that inasmuch as these safeguards are intended for the benefit of the foreign exploiting interests in India in proportion as these interests are maintained in tact in all their advantageous positions, no large-scale economy is possible in Public Expenditure, hardly any large-scale development of India's productive enterprise can be brought about, and therefore little new wealth can be produced and added to the sum total of India's available national dividend. The consequence is that the people, even if they have the necessary skill, energy, equipment, and enterprise, must face the spectacle of wastage of energy, stagnation of skill, decay of industry and non-utilization of the available resources.

Constitutional restrictions imposed in **regard** to such fundamental matters, as for

instance, money and credit, and their manipulation with a view to suit the economic requirements of the country from time to time, have a far-reaching bearing, apart from the political distrust of the Indian people implicit in these restrictions. They have, as recent events in world history show, a very great economic importance. Being outside the control of the Indian people or their chosen representatives, India is unable to help herself, in any emergency of economic depression, by such methods as Britain, the United States, or France have adopted within the last five or seven years. They have created new work for their unemployed, and regulated prices, not in accordance with the real competitive level, but rather in accordance with the purchasing power of the people, so as to ensure a more, balanced economy. They have controlled the whole economic system so as to promote to the utmost the collective good of the community. The most important single lever for any such action is the manipulation of the money and credit mechanism of the community. But India cannot even touch

this on her own account, or for her own benefit.

So far as the provinces are concerned, every time that they find any economic problem within their jurisdiction, or the aggregate of an entire, economic situation in their province, requiring such remedies as are intimately concerned with the manipulation of credit or money, they are, of course, very much handicapped. In regard to debt relief, and the rebuilding of new credit, they could, if the power were available in a responsible national Government, issue currency on the security of land or industry so relieved of their burden of debt, and pledged to the State as security for the repayment of the debt to the community. But no such drastic remedy is possible; and we must work with blunted weapons, hackneyed tactics, and often self-stultifying strategy.

(b) Assets.

Having considered our handicaps or liabilities, let us now cast a glance at our assets or resources, and consider whether those resources actually being tried, or those yet untried but available almost immediately

for the purpose, are at all equal to our requirements.

Our untried natural and human resources stand in marked contrast to the resources already mobilised and actually being employed for the purpose of rendering social services on a scale accepted today.

Natural Resources—Land.—We take first landed wealth of India. It is responsible for the largest single occupation in the country—namely, agriculture, and provides both the food necessary for human existence, and the raw materials of industry. It is extensive in cultivation, and not ungenerous in its yield. But, even so, it has potentialities which can only be realized if agriculture is made scientific, modernized, and better organized in respect of the unit cultivated, the crops sown and their rotation, and in regard to the aids and equipment needed for the purpose.

Of the total area available for cultivation in India, somewhere about 435 million acres, 308.5 million acres, or over 70 per cent is not under cultivation, either because it is lying **fallow**, (154.26 million acres), or is culturable

waste land, not yet brought under the plough (154.26 million acres). Even If we regard the former class of land as not altogether unused for cultivation, more than a third of the land available or suitable for cultivation is yet not under the plough. It may be poorer in quality, and would very likely need considerable capital outlay in respect of reclamation, drainage, livestock, seed, manure, water-supply, farm buildings, and other tillage accessories. Thus it may not be within the means of the average Indian agriculturist, already overburdened with debt, to provide. But cannot Government, by proper organization, and long-term financing, aid him to do so ?

The following figures show the amount of such fallow and waste land, as well as the amount of land sown with double crops, in some of the principal provinces. They show the possibilities still available in the soil.

Area Cultivated and Uncultivated in 1934-35 in each Province.

Provinces.	Net area.		Cultivated.		Un-cultivated.		Percentage of column 1 & 5.
	According to survey in thousands of acres.	According to village papers in 1,000 acres.	Net area actually sown in 1,000 acrtas.	Current fallows sown in 1,000 acres.	Culturable waste other than fallow in 1,000 acres.	Not available for cultivation in 1,000 acres.	
	2		4	5	6	7	8
Assam	35,485	35,485	5,988	1,824	19,120	4,571	53
Bengal	49,255	49,255	23,357	5,424	6,626	9,229	13
Bihar and Orissa	53,133	63,133	24,132	6,932	6,932	8,035	13
Bombay	78,894	78,894	32,802	10,718	6,666	19,477	8
Central Provinces and Berar	63,792	64,086	24,668	3,988	14,209	4,950	22
Madras	91,021	91,005	32,802	11,166	13,442	19,793	14
Punjab	61,001	60,174	26,504	4,619	14,216	12,862	23
United Provinces	67,849	67,973	35,662	2,910	10,218	9,901	15
Total	1,668,061	667,593	226,980	154,261	145,260	144,817	

For a variety of reasons, economic as well as social, much of this available land in Bihar, about 13%, is not yet brought under cultivation. The lack of initial capital necessary to reclaim such land, as well as the inaccessibility of such lands to an easy market, may perhaps account for their being out of cultivation. A small proportion of these is, perhaps, uncultivated simply because the quality of the land itself is too poor to be remunerative. Making allowance for all these factors, it is yet not unreasonable to assume that, if the whole or greater portion of this culturable land now uncultivated, could be brought under the plough, and sown with crops suited to the soil, water-supply, and climatic conditions it will add considerably to the total agricultural production in the country.* In other words, even

*The Bihar and Orissa Provincial Banking Enquiry Committee estimated the total value of the agricultural produce of the entire province, at the 1929 level of prices, at Rs. 111.80 crores. Allowing for the subsequent fall in price, and the decline due to the separation of Orissa, the present value of the total agricultural produce of Bihar could not be much above Rs. 64 crore³. The Review of the Trade of India in

[See *next page*.

at present prices, the 1,200 crores worth of agricultural produce may be increased to at least Rs. 1,600 crores all over India taken collectively. Every province might not benefit equally, but the aggregate result is bound to be reflected in the general prosperity

Mineral Resources.—The mineral resources of the country, as at present exploited, do not give us any important place in the list

[Continued from page 39.]

1934-35 estimates the value of the principal Bihar and Orissa crops at Rs. 137.86 crores in 1928-29 and Rs. 55.34 crores or 1933-34, or a fall of nearly 60 per cent. The crops thus valued are :—

Crop.	Value in crores of—	
	In 1928-29.	In 1933-34.
Rice	94.62	33.19
Wheat	8.38	4.13
Barley	5.92	2.58
Gram	6.62	3.35
Sugar	5.49	5.19
Rape-seed	3.79	1.38
Linseed	1.97	0.87
Maize	5.11	2.44
Tobacco	3.05	1.45
Cotton	0.22	0.07
Jute	2.69	0.71

of the world's mineral producers. But there is no doubt that the actually exploited resources are not even a fraction even of the known resources still unexplored and unexploited.

In Bihar, coal, iron, limestone, copper, manganese are already known to exist in very large quantities, while mica, properly developed, promises to develop a wholly new industry of considerable dimensions. Other minerals too are available in considerable quantities; but these need be investigated by duly qualified experts on the subject. Systematic, scientific investigation by experts is an immediate necessity and has to be undertaken at an early date.

Forest Wealth.—Forest resources offer yet another branch of the still undeveloped or even unexplored resources of this country in its immense forests. Properly developed they might add substantially to the material wealth in the country, as also to the volume of employment available. The principal

provinces have the area under forests as under:—

Forest Areas in each Province.

	Acres.
Assam	... 3,961,781
Bengal	... 4,617,869
Bihar and Orissa	... 7,057,531
Bombay	... 9,230,546
•C. P. and Berar	... 16,269,342
Madras	... 13,803,814
Punjab	... 1,972,000
United Province	... 9,282,068
<hr/>	
Total	... 66,194,951
<hr/>	

The Central Provinces, the United Provinces, Bombay, Bihar and Madras have between them more than half the entire forest area of the land. But the income to the State from these areas exhibits an unaccountable variation, as shown by the following statistics.

Income from Forest in Several Provinces.

Provinces.	Out-turn of produce,		Revenue.	Expendi- ture.	Surplus.
	Timber and fuel.	Minor produce.			
	C. ft. in 1,000.	Rs. in 1,000.	Rs. in 1,000.	Rs. in 1,000.	Rs. in 1,000.
Madras	21,813	15,60	39,20	39,20	23
Bombay	55,526	18,95	54,30	32,86	21,44
(Bengal	21,399	4,82	15,03	14,42	60
United Provinces	31,807	15,00	45,17	26,55	18,62
Punjab ..	32,419	18,30	19,48	21,38	—1,89
Bihar and Orissa	9,499	2,56	6,85	6,68	16
Central Provinces and Berar.	31,882	21,49	44,06	33,43	10,62
Assam	12,514	5,44	14,57	11,97	2,60

While Bombay derives nearly $21\frac{1}{2}$ lakhs of net revenue from her $9\frac{1}{4}$ million acres, Madras has bare revenue of 23,000 from her $13\frac{3}{4}$ million acres and Bihar only 16,000—the lowest figure—from her 1 million acres. Obviously there seems considerable room for improvement.

As regards the natural environment in general, including (a) climate, (b) the lie of the land, (c) rivers and mountains and (d) trade and other connexions the country in general is so situated, that with a

comparatively small effort, it could contribute to a fairly reasonable rise in the standard of living of even its present large population.

The laws and customs of distribution of wealth, no doubt, affect, even as it is, the average standard of living prejudicially for the large mass of people. The existence of considerable classes of middlemen who, though, relatively few in number, take a very fat slice of the total wealth of a province like Bihar,, must needs complicate the problem to a very large extent. In the new scheme of existence for India contemplated here, if these continue to occupy the position which they do, any hope for an increase in the amount of wealth from land and the other natural sources of production would be disappointed, or would result in accentuation of the existing difference between the social strata.

It is a truism to say that India is advantageously situated, is so endowed with natural resources and gifted with climatic and other conditions as to be able, within her own frontiers, to produce almost everything needed for human sustenance and industrial development. What is lacking is rather the proper

and adequate equipment for production, a full scientific exploitation of all these natural advantages, and a juster, more equal or equitable system of distributing the wealth produced amongst the producers.

The problem, therefore, is : how best to provide the necessary equipment and organisation in production so as to improve the standard of life to at least double the present level of existence, and secondly how to improve the system of distribution so as to eliminate intermediaries and those overpaid branches of general administration which today cause such a disproportionate strain on the wealth of the people.

In other words, what is needed most is not the absolute prerequisites for wealth production as we already possess these, but simply a more comprehensive organization, a scientific plan, an improved technique and better equipment, and a relief from the unproductive imperialist burdens imposed from outside.

In spite of their many limitations the Provincial Governments can make a real move on. An endeavour will be made in the pages

that follow to show how we may proceed to grapple with the task before us.

Human Resources.—As regards the manpower proper, or the human factor in wealth-production, we have large resources if we only think of mere numbers. The sub-continent of India is amongst the most densely populated countries of the world. We have living within our frontiers practically 1/5th of the total world population. These vast numbers, however, cannot be utilized to the limit of their capacity for adding to the material wealth of the country, simply because the intensive poverty of those people brings about weak physique, under-nourishment, and a short span of working life. Their technique of production is backward, their equipment somewhat primitive, and their organization for finance and marketing exceedingly defective.' All these prevent the fullest possible use of the actual and, much more so, of the potential energy **of** our people.

.There can, of course, be no shortage **of labour in India**, merely as considered **in the**

light of numbers. But, in so far as labour needed for productive organisation is to be skilled or properly equipped, it must be admitted that our resources are very slender indeed. That is why, in spite of our very large numbers, ten times as numerous as that of the United Kingdom, our aggregate annual wealth production is not even a third of that country's corresponding wealth; and the per capita wealth in this country is not 1/30th of the wealth of the British Isles. The contrast would be still more glaring if we consider these in relation to the United States of America, and even in comparison with most of the other European or industrialised nations of the world.

The question whether our population, as such, can be maintained in a reasonable degree of comfort from our own resources, and whether our present rate of growth in population is likely to transgress those limits, need not concern us here. What is more important, However, is the fact that whatever be the potentiality of future growth (or restraint) of population, our present resources do not provide even two square meals for the

mass of the people. All other requirements of a civilized existence cannot even be thought of for the bulk of the people within the existing resources. These resources have, therefore, to be re-organized and developed so as to yield the maximum they are capable of. If that can be accomplished, and a fairer distribution of wealth annually produced achieved, there is no doubt that India may well be able to maintain the population now in existence. This would, of course, imply not merely the fullest possible development of all natural wealth—e.g., in agriculture, mining, forestry and other occupations connected with land—but also the fullest possible development of industries, on a large scale with the most efficient mechanised equipment, and the most scientific technique of production.

Inasmuch as today, the only available occupation of 9/10ths of the people is land and its exploitation, in one form or another, there appears to be disproportionate pressure of population upon the soil. But if a reasonable alternative was provided in employment other than agriculture in all its branches and

affiliations, the pressure could perhaps be reduced by one-third if not one half, within less than a decade. The objective to be held in view for the intensive development of the resources in each province 'should be to equalize the pressure of population between agriculture and other occupations somewhat on the following basis:—

	Per cent.
Agriculture and its associate or subsidiary occupations.	50
Industry	33
Commerce and its complements or accessories, like banking transport, etc.	7
Administrative and other social services.	10

Practically all the raw materials needed for modern industries, human and mechanical or electrical power, as well as the markets for the consumption of the commodities produced are available, in an ample measure, in this country. What remains to be done is the proper organization of all these factors of wealth-production and wealth-distribution. Given an all-round organization, personal and technical skill will no doubt be available

in an age of machinery. And if the associated social services are adequately attended to, the distribution of population through other employments could be easily altered so as to relieve the pressure on the soil.

All these natural and human resources are, as already noted, not at present mobilized or developed to the degree that they well might be developed if the proper organization were provided. Thus for instance, the human factor could be utilized much more than it is to-day, by an organization like that of compulsory social service rendered in return for board, lodging and clothing at a very modest standard during two or three years of the life of each individual man or woman above a prescribed age. The utilization, however, by such methods of all our industrial and human resources would presuppose such organization of Government or administrative machinery as could be applied by those in power where it is most needed and to the greatest advantage. We shall notice in its appropriate place what we consider to be the proper development of each such factor and the necessary organization for the same.

Actual Mobilised Resources.—Of our mobilized resources, actually in use, the most considerable or immediately usable are in the shape of Provincial Revenues. The existing volume of Provincial expenditure, however, is so rigid and so completely absorbs the available revenues, that any new demand upon these revenues must needs involve a heavy strain upon them. A considerable proportion of these revenues, again, is pledged in advance to the maintenance of costly overhead charges and other unproductive expenditure, like payment of interest on account of debt. Under these circumstances, it is open to question whether any province can command a really effective margin of its current revenues for purposes of nation-building, and making up the deficit in their social services that characterises the national economy of India to-day.

Under the New Constitution, the ability of the Provincial Governments substantially to reduce the unproductive charges, or to make economies and retrenchment in overhead costs of administration, is exceedingly limited if it exists at all. Even as regards the

redistribution of the burden of taxation from the shoulders of those who at present bear it in spite of their very limited taxable capacity to those who to-day escape lightly from the tax-burdens, in spite of their much larger ability to pay, it is a matter of serious doubt if the power to make this redistribution is available to the Provincial Ministries.

Assuming that the Provincial Governments have a will to make a properly planned re-distribution of the tax burdens, in accordance with the canons of distributive justice, the scope that is left to them for doing so is very limited. Taken in their aggregate, the Provincial Revenues are strictly restricted under the New Constitution. Such as they are, they are either inelastic or unproductive, or of such a pernicious character that any real reformer cannot continue to use such sources of revenues a moment longer than is absolutely unavoidable. In most cases, these forms of taxation are so deeply interwoven with the whole fabric of the existing society, that, without touching the most venerated of these institutions or ideals, such resources cannot be tapped at all.

Under the constitution the Central Government reserve to themselves the most productive and elastic sources of revenue. Sharing with the provinces even such elastic sources of revenue as the income-tax is half-hearted and hedged round with conditions. Besides, all provinces are not equally advanced in the matter of industrial and commercial development to be easily, and substantially amenable to this form of taxation.

Land revenue is, in most cases, either fixed in perpetuity, or at least fixed for a given term of years. It is generally payable in cash; and is, therefore, not exposed to the risk of material variation from year to year on account of the character of the season. For the cultivator, also, it makes no allowance for variation in the produce due to the failure of rains, floods or pests; and impinges with disproportionate weight on the smaller cultivator in the so-called ryotwari provinces, while its incidence on the larger land-owners, called Zamindars, Talukdars or Malguzars is relatively very light. In almost every province, this source of public income forms the largest single item in the

local budget on the revenue side.* Inability to modify this important source of public revenue for a number of years to come must necessarily be regarded as among the most serious handicaps of Provincial Governments. The incidence of land revenue, therefore, requires to be radically revised. Perhaps the whole of the system of revenue from this source, together with the tenures of land on which it is based, requires drastic revision. The repercussions of such wholesale reconstruction are more difficult to forecast; but they cannot affect prejudicially the present condition of the masses, as that is almost at its lowest point.

Such a process, if tried on an equitable basis, may result in considerable sacrifice of revenue from this source in provinces where the land settlement is directly with the cultivator. The latter has such slender means, mainly because of his excessively small holding that any rational and equitable recasting

. Bihar it accounts for $1\frac{1}{3}$ crores out of Rs. 5 crores of the total Provincial revenues. The item, however, is governed by permanent settlement and so has created its own new complications in the shape of innumerable subinfeudatories with specific rights in land which have to be dealt with elsewhere.

of the land revenue system, on the analogy of the income-tax, must involve considerable exemption from the tax on the ground that a minimum of income must be left with the actual producer to provide him the means of subsistence. In the provinces which would be thus affected there is no possible alternative source of revenue, of a like scale, to make good the deficit involved in the sacrifice of such amounts in, say for example, Bombay, Madras, the Central Provinces, and parts of the Punjab,—unless direct taxation in other forms is developed to make up for this loss of revenue.

We may mention, in this connection, the case of the landless labourer,—the veritable agricultural proletariat,—whose problem and hardship have scarcely been attended to by any agitation or organization for agrarian relief. The actual numbers of this bottom class of our social strata are almost impossible to compute, the more so as tenants or holders of many microscopic holdings, whether under Zamindars or under the State directly, have invariably and unavoidably to supplement their meagre earnings from land

by personal labour hired out to their richer neighbours. These are in addition to the literally landless labourers on land. For them, unless alternative employment with a living wage is found elsewhere, or agricultural wealth re-distributed more equally, there is no hope of getting even the barest subsistence.

Another similar appendix hanging to the fringe of the agrarian problem is that in regard to the innumerable intermediaries between the ultimate land owner—the Zamin-dar—and the actual cultivator, particularly in the Permanently-settled areas, these intermediaries are in effect largely parasites. But they, too, are citizens; and we cannot regard the problem as solved by simply liquidating ' them—as they did in Russia in the case of the Kulaks. Land-holding and cultivation need to be rationalized and modernised. And for that purpose a more radical change in the very foundations of the social system is indispensable.

Even if the land revenue system is equitably recast, the necessity to make provision on account of the various contingencies

of agricultural life,—such as some sort of insurance premium to maintain the cattle wealth of the country, to provide against emergencies like that of flood or famine, or even to build up a central fund for the redemption of existing agricultural debts,—will involve heavy additional strain upon the agriculturists in general. In order, however, that this strain may not unnecessarily handicap the producer, it is necessary that some form of consolidation of land into village or district co-operative or collective farming units be resorted to, to secure all the possible economies of large-scale and intensive farming.

As regards the inelasticity of the other sources of revenue open to the province, it is unnecessary to dwell at greater length on that subject in this place. Much of these revenues also depend upon the taxable capacity of the people; and so far as present conditions go, this capacity is extremely limited. In provinces where modern industries are developed, e.g., Bengal and Bombay, or the United Provinces the problem may be relatively easier. **But**, as already remarked,

the Central Government have everywhere reserved to themselves a number of sources of revenue which, if permitted, would fall upon the wealthier classes in the province, and so yield better or more elastic return. Under the present dispensation, the provinces are doubly handicapped.

On the other hand, there are some sources of revenue, which, like excise duty on intoxicating drugs and drinks, are of such a character that no civilized Government can continue them for a moment longer than absolutely necessary. Their very presence means far more harm to the national wealth in general than the direct money benefit they bring to the public exchequer could compensate. So far as the Congress Government in the provinces are concerned, they are pledged to the policy of dispensing with the Excise Revenue derived chiefly from the intoxicants. It is a matter of policy which admits of no further criticism since the majority have deliberately committed themselves to that policy. Looking at the problem simply as mere matter of revenue, this policy would involve very considerable

sacrifice in proportion as the programme of prohibition is achieved in those provinces where Excise Revenue is an important percentage of the total. The deficit caused by the disappearance of this revenue will tax the ingenuity of Provincial Finance Ministers to the utmost degree to find the alternative sources of revenue.

As for the suggestion to recoup the loss caused by the disappearance of the Excise Revenue from such sources as Agricultural Income-tax, or Death Duties, it is open to question whether these devices will really make good all the deficit arising out of this source.

The only remaining possibility of increasing the income of Provincial Governments lies in the taxable capacity of the people of each province. In the present conditions of productivity of new wealth in the provinces, the taxable capacity of the people is exceedingly limited. There is, therefore, little hope that from this source much additional income could be derived by the Government of any province. The aggregate productivity of the country is

extremely limited, because of a number of social customs and prevailing institutions—some of them already noticed above. There is, further, the handicap caused by a heavy indebtedness, also because of certain objectionable habits such as that in connection with drink—that cannot but weaken further the productive capacity of the people. Considering all these, our mobilized resources must be pronounced to be insufficient for any of the purposes for which the country immediately needs to make a new effort. Until conditions change, until, those existing handicaps upon production are removed,—and the production of wealth in this country is substantially increased, there can be no hope of any material improvement in this direction.

The utilization of public credit offers the only remaining alternative. But, even in this connection the limiting conditions cannot be ignored as regards the ability of the province to meet interest and sinking fund requirements from current revenues. Resort to borrowing even, for productive purposes would not appear justified in orthodox eyes

unless within a given period, all the charges on account of interest and redemption of capital amount are met from the new income. The Provincial Governments are, no doubt, empowered, under the New Constitution, to borrow money on their own account, either in the money market or from the Central Government and, with the permission of the Federal Government, even outside India. But there are definite constitutional limitations, also, on borrowing, which cannot be overlooked by even the most wealthy province. The *modus operandi* in this connection has also to be considered afresh and the objects to which such borrowed amounts are to be applied have not only to be determined with particular care, but every precaution would be necessary to provide for the regular payment of interest and sinking fund, if the credit of the province is not to be irretrievably damaged.

Funds raised by means of public lotteries may no doubt cause less heavy burden, comparatively speaking, than those in the ordinary way in the open market. But even here, the scope of employing the provincial

credit for nation-building activities within the province is definitely limited.

(c) *Our Objectives.*

Our next task is to lay down definitely the objectives we are seeking in the several departments, the standards of or forms to which we wish, in given matters of social services, to build up our national economy.

The general political objective of complete independence held by the whole Indian people is itself justified, from a material standpoint only by the belief that the achievement of such complete national autonomy is a condition precedent to the fuller development of our resources, and the better meeting of our obligations, such as would be in conformity with the circumstances and traditions of our country. With this lever it would be much easier to recast the economic mould, and make up the lag from which the country as a whole is suffering.

The generic objective, therefore, will not by itself suffice to bring any material reconstruction in the provinces, which can alone be the real justification of the desire for complete independence. Hence it is

absolutely necessary to prescribe in each department affecting the well-being of the people a definite standard, to which we must work up our collective effort, and thereby attain the reconstruction of the country as desired. Some of our objectives are briefly stated below:—

/.—*In Education.*—(a) The plan or programme of provincial reconstruction should be so framed that within a prescribed period, say of ten years, every child of school-going age (that is to say, of the ages of 7 to 14 years) must compulsorily be brought to school, and educated in that basic minimum of education. This basic minimum of instruction must be available to every child born within the community, free of cost to its parents, and equally to all classes and communities.

(6) Illiteracy among the adults must, like wise be liquidated, abolished, within the same prescribed period of ten years, by a simultaneous campaign against the same.

(c) Higher instruction and training, in secondary schools, and collegiate or post-graduate institutions of training or research

must be imparted to such numbers as are, in accordance with the needs of the community estimated in advance for each year for each of those categories of trained people. This would prevent the problem of unemployment for highly trained people from ever arising and, at the same time, aid specifically in the progressive fulfilment of the planned programme of reconstruction.

//.—*In Rural Indebtedness and Agricultural Finance.*—(a) Agriculturists' debts, most unproductive must be liquidated—as early as possible.

(b) To accomplish this, a complete census of existing debts, and their duration, incidence of interest, etc., should be taken and registration of all debts must be made compulsory on pain of the debt being declared unenforceable in a court of law if unregistered.

(c) No debt should be registered which carries an interest charge above a prescribed standard rate, or the accumulation of which has more than doubled the sum originally borrowed.

(d) The Government must take over the

debts thus systematised and scaled down either directly or through a system of controlled village bankers.

(e) A Provincial Land Bank should be constituted for this purpose with powers to issue Bonds and to float loans on behalf of the Provincial Governments.

///—*In Land Revenue System.*—(a) A progressive reduction in the burden of rent charge or land revenues, which may vary in the several provinces in accordance with the local system of land revenue and land tenures, should be effected.

(b) A better distribution of rent charge should be attempted so that uneconomic holdings may not have to bear undue pressure on this account. The possibility of a system of assessment based on the size of the holding instead of on the unit measure of land, as at present, should be examined.

(c) In the permanently settled areas, the Provincial Governments should take steps to acquire the zamindari rights.

IV.—*In Agriculture*—(a) All culturable land, at present not under cultivation should be brought under the plough. The

capital needed for its reclamation and for its equipment with cattle, implements, seed, buildings, or for such services in connection with it as drainage, water-supply, communications, sanitary measures, must be provided on collective credit. This would add materially to the produce in quantity from agriculture within the province planned for; and so raise the share of each citizen in the matter of food supply, which is in many provinces to-day in deficit. There must, of course be a proper adjustment, not only on such reclaimed land but on all agricultural land throughout the province planned for,—between the area devoted to raising food crops, and that devoted to raising the so-called commercial crops. The latter must be raised, preferably under conditions when it may be possible to work up these crops into the finished goods ready for consumption; i.e., in connection with manufacturing industries based on such raw materials.

(b) Adjustment between food crops proper and commercial crops to be worked subsequently into manufactured articles by industrial process so that not only a larger margin

should remain with the agriculturists in regard to food material, but also other necessities of civilized life and a minimum standard of comfort and amenities of life could be provided.

(c) Subsidiary, or connected, industries whether on a cottage scale, or on a factory scale of mass production, as and where necessary, should be established, so as to add to the sum total of the wealth in each planned province. The possibilities of every such industry must be carefully investigated to start with; and its initial requirements by way of capital or mechanical equipment, buildings etc., as also in the matter of skilled and unskilled labour, organisation for markets, and the like, must be similarly ascertained and provided for. Associated or subsidiary agricultural industries, like dairying, poultry farming, utilisation of animal by-products like hides, bones, hair etc., fruit cultivation and preserves or canning of all kinds and market-gardening, should all be regarded as annexe to agriculture, the principal occupation. But these

would both provide employment during the off-season, and add materially to the wealth of the agriculturist at the same time. Large-scale industries founded on raw-material supplied by agriculture would, generally speaking, be on a large, mechanized scale of operations. These must, therefore, be adjusted to the local requirements for such manufactured articles, in the first instance; and also to the possibilities of the soil and climate for the necessary raw material in a given province. The amount of such regular industrial employment must be calculated in advance, and the portion of labour diverted to industry must be regarded as so much reduction of the pressure on the soil.

The aim, in this regard, should be progressively to reduce such pressure on the soil, till industry of all grades absorbs 33 per cent of the population ; commerce and its accessories of transport, credit etc., 7 per cent and the balance of 10 per cent in the administrative and other social services which would be considerably expanded as the planned programme becomes more and more realised.

Agriculture proper would then support about 50 per cent of the population. Side by side with such rehabilitation in agriculture, steps should be taken to provide adequate facilities for marketing of agricultural produce by way of grading, storing, transport, credit etc.

(d) Agricultural Insurance, against all the normal risks of agrarian life, including provision against floods, famine, cattle, pests crop failures, etc., must be simultaneously provided on a basis of direct contribution of the cultivator to a fund created for the purpose to which the community as a whole might also be required to contribute, as, in the final analysis, it is a measure of national self-protection.

(e) Agrarian communities will have to be reorganized in consequence of all these changes, with a view to eliminate all intermediaries and to secure greater and closer co-operation amongst their members. Co-operative Local Agriculturists' Associations must be constituted to function for all purposes of agrarian life; and must be interconnected throughout the province on the basis of a federal organization.

V.—*In Industries.*—(a) As already observed, a survey of the industrial possibilities in each province must be made at the commencement of the plan ; and the plan be drafted in accordance with the possibilities thus revealed. Due regard must be had, in preparing that section of the plan dealing with the industrial reconstructions to the sources of raw materials, possibilities of market within the province, availability of skilled and unskilled labour, and the needful finance for such industries.

(b) The fundamental question of whether the new industrial revival in India should take the shape of restoring cottage industries, or starting with mechanised, modernised mass producing factories, must be settled at the outset. Not all industries are capable of work on a large-scale basis ; nor are all industries possible to operate on a small scale basis. Adjustment in this regard must accordingly be made to accommodate both these groups, with the ultimate aim in view of providing employment for as large a section of the population as possible.

(c) Accessories for a proper industrial reconstruction, such as adequate transport and banking facilities, marketing organization, stock and produce exchanges, must also be organized at the same time. In most parts the lack of these accessory facilities is alone responsible for the backward state of the industrial development.

(d) Roads and rivers must be reviewed for purposes of providing cheap alternative transport. Riverside towns may have infinite possibilities as ports, with direct trade to foreign countries, which must accordingly be investigated.

(e) Labour problems of a living standard of comfort including wages, hours of work, insurance against unemployment etc., must simultaneously be considered. Organization of labour into efficient Trade Unions, so as to carry out the principle of collective bargaining must at least be developed at the same time. Housing conditions of labour, and the concurrent questions of excessive urbanization as well as congestion of population in certain cities only must be attended to from the start.

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VI.—*In Public Health.*—All factors which affect injuriously the public health must be remedied. Provision of water-supply, sanitary conveniences, precautionary measures against epidemics must largely be attended to, so that the heavy mortality of to-day may be stopped, the state of our peoples' physique be improved and also their working efficiency.

CHAPTER HI.

RURAL INDEBTEDNESS AND AGRICULTURAL FINANCE.

The problem of agriculturists' debts, and their redemption is no less pressing in Bihar than in other provinces. The volume of agriculturists' debt in this province has been variously estimated. The Provincial Banking Enquiry Committee estimated the rural indebtedness of Bihar and Orissa to amount to one hundred and fifty-five crores of rupees. Assuming that this estimate represented the facts prevailing then, the rural debt for Bihar alone would be something like 124 crores in 1930. Since then the depression has caused an increase in rural debts. The interest charge on 124 crores, at a moderate estimate of 15 per cent per annum, would amount to over 18 crores per annum or over 126 crores in the last seven years. It is improbable that more than a third of this could be paid and then there has been fresh borrowing. On this basis it is probable that the

rural debt in Bihar today is something like 200 crores of rupees.

Most of this debt has been advanced on the security of the land and even unsecured loans in rural areas in most cases ultimately fall on the land. There are 26 million acres of cultivated land in Bihar. Of this area about 25 per cent may be reckoned as free from debt as belonging to the creditors among whom there are landlords and agriculturist-money-lenders as well. Thus we find that about 20 million acres of land is burdened with a debt of about 200 crores. Of course all the land is not mortgaged direct for the debt as there are various rights in the land that are used for purposes of credit and given as security. But in the rural areas all wealth ultimately comes from the land except a fraction that is earned by labour in industrial areas and whatever is sent from the towns by well-to-do people as gifts or reliefs to their relatives in the villages. There is no doubt however that the main burden of debt falls on the land.

In his annual Review of Trade in India for 1933-34, the Director-General of

Commercial Intelligence and Statistics gave an estimate of the value of principal crops in the provinces. The value of principal crops grown in Bihar and Orissa in the year 1932-33 was estimated at $56\frac{1}{2}$ crores of rupees. Assuming that Orissa represented a sixth of it, the value of principal crops in Bihar alone might be estimated at about 47 crores. Conditions have not materially changed since. However, making a very liberal estimate of Rs. 32 per acre as the average value of crops grown (the figure given by the Director-General of Commercial Intelligence works out to about Rs. 20 per acre) 20 million acres would yield 64 crores of rupees. The interest on 200 crores amounts to at least 30 crores and rent and cess another $9\frac{1}{2}$ crores or so. So that about a third of the produce only would remain with the producers if rent and interests are to be cleared regularly.

Looking at the problem from another point of view it is found that the amount of debt has now almost exceeded the value of assets because the sale value of 20 million acres is not more than 200 crores at the present time at Rs. 100 per acre on the average. Under

such circumstances commercial firms would have got themselves declared insolvent long ago, but agriculturists can not do so.

Then the most important fact of the situation is that not a pice of this huge sum is in existence in the villages either with the *mahajans* or with the debtors. It has been consumed and has disappeared from the villages. It exists only in documents and accounts. A large proportion of such accounts is also hereditary coming down from generation to generation.

It is therefore presumable that the debtors are in effect sold to the creditors and are entirely under their control. If the money-lender stops to finance the debtors he will find himself in a hopeless position. Such being the condition, any legislation to control the money-lender and his rate of interest may produce a certain amount of moral effect, but is not likely to have the desired result, particularly when the debtor has to take the initiative in setting the law ill motion. Legislation to control the money-lender was tried in the past but experience showed that such measures proved comparative failures.

The Royal Commission on Agriculture summed up the position as in the following paragraphs.

" That the position of the money-lender should have been undermined to so small an extent by the centuries of effort to control him sufficiently illustrates the difficulty of the problem. In the present state of India, he is a necessity and, that being so, his calling will not be abolished by making it illegal. He alone is in a position to provide the bulk of *the* capital required for current agricultural needs and, on a recurrence of severe distress, he will continue, as in the past, to support the people by timely loans. If he is ever driven from the land, it will not be by legislation but by the growth of the co-operative movement and, more especially, by the habits of thrift inculcated by that movement. Where thrift is absent, the vagaries of the monsoon drive the people to borrow and, unless the co-operative movement spreads into every village and includes every inhabitant in its fold, borrowing will continue. No one denies the services rendered by the money-lender; the charge against him is that these

services are rendered at too great a price and are accompanied by practices which result in great evils. The system is usurious, the ready lending for unproductive purposes leads to poverty and economic servitude; the steady absorption of rights in land places the money-lender in a position of uncontrolled power, and uncontrolled power is almost invariably abused. To a very great extent, the cultivator in India labours not for profit nor for a net return, but for subsistence. The crowding of the people on the land, the lack of alternative means of securing a living, the difficulty of finding any avenue of escape and the early age at which a man is burdened with dependents, combine to force the cultivator to grow food wherever he can and on whatever terms he can. Where his land has passed into the possession of his creditor, no legislation will serve his need; no tenancy law will protect him; for food he needs land and for land he must plead before a creditor to whom he probably already owes more than the total value of the whole of his assets. * * * ."

" However perfect the judicial system may be and however good his case, money can wear

out the impoverished litigant. Every report on the administration of civil justice bears witness to the volume of unsatisfied decrees against cultivators * * * ."

It is extremely probable therefore that any legislative measure designed to control the money-lenders and relieve the agriculturist debtors, without at the same time providing for finance and credit facilities, will fail to achieve its purpose. As long as they have got the debtors under their absolute control, the creditors, being more intelligent than the debtors and backed by the power that money gives, can twist any law to their advantage, as long as such law requires that the debtor has to take the initiative and seek its help. Furthermore, such legislative measures may further contract the credit facilities available to the cultivators. Apart from the general hardship and sometimes utter ruin caused to individuals by the contraction of credit facilities, one of its cumulative and collective effects, which is not generally realised is the depression that it brings about in the trade and general economic situation of the country. Lack of

credit at the proper time compels the producers to hypothecate their produce in advance or to rush to the markets for sale resulting in a glut which makes prices fall, and when prices fall more produce has to be sold to get the required amount of cash. A vicious spiral thus starts which further contracts the credit of the cultivator, destroys his reserve and ruins his purchasing power causing depression in the general trade of the country.

It appears therefore necessary that Government should take the initiative in setting the law in motion to control the money-lender and his rate of interest on the one hand and providing facilities for rural credit on the other.

It is necessary for this purpose to collect reliable data in respect of the various kinds of debts and of the different classes of creditors both of which vary within very wide limits in rural areas. Itinerant Kabulis, Sikhs and Gosains advance money . . . at very high rates of interest and mainly rely on their power of intimidation for realization. Banias supply articles of daily necessity on

credit or advance money on crops. Then there are the landlords, well-to-do cultivators, Sahoos, Co-operative Banks and sometimes Government themselves granting loans to the people. Occasionally widows with a little cash give loans on the security of jewellery and other valuables. Men of the professions and services who have their homes in the villages sometimes augment their income by lending money to the villagers. Such people sometimes borrow suitable amounts from their friends or banks in the town and lend the same in the villages at a higher rate of interest.

Then there are various kinds of loans and debts. Some debts are the results of borrowing but others have accrued from inability to pay one's dues. Some are grain **loans** converted into money debts; some are for services rendered while still others are for services to be rendered. Many of the **rural** debts are **hereditary** and **in some** cases **without involving any inheritance of property with** it. Some are long-term loans **on mortgage of property, while some others** are very short-term loans as in the case **of people**

who carry on the purchase and sale of cattle, sheep and goats. Generally zamindars, cultivators and *mahajans* finance these dealers in livestock. The usual rate of interest is 2 to 3 per cent per month. These loans are advanced on trip basis i.e., the *paykars* take the loans, make their purchases, go to other places to sell the stock and repay on return, the whole process taking about a month in all. Muhammadan financiers generally take a share of profits instead of interest. Security varies from nothing to ornaments or landed property.

Among the several possible lines of solution of this intricate problem of rural indebtedness and agricultural finance, the idea of co-operative credit presents itself to the forefront. The working of the Co-operative Societies, however, has not been much of a success in this province. These societies have from their start been commonly regarded as potent means for the cure of agricultural indebtedness, and though they have not succeeded in this task to any appreciable extent, expectation still survives in this behalf.

There are 53 Central Co-operative Banks

in this province. Taking these banks collectively, their total gross assets according to the figures as they stood at the end of 1936, are valued in their books at Rs. 194.52 lakhs, out of which 113.76 lakhs carry interest. Against these, there are liabilities valued at 185.93 lakhs of which 140.20 lakhs carry interest. There is thus a nominal margin in favour of the banks of about 8.59 lakhs. Of the assets, a greater proportion consists of outstanding claims of the societies against their members or borrowers. Out of these a proper calculation shows that a considerable amount is to be regarded as bad debts and in some way or other to be written off.

It must also be remembered that, in their ordinary working, the societies show a nominal profit of about 2 lakhs; but the actual working shows that the recoveries fall short of expenditure by about 2.80 lakhs every year. With a recurring deficit of this dimension staring the Do-operative Banks in the face, the position cannot at all be regarded as encouraging. The problem of rehabilitating or salvaging the entire Co-operative

Movement therefore, through its credit side, has become more acute than ever.

The Co-operative Banks have been able to serve, with about 2 crores of rupees raised, only about 1.9 per cent of the population; and even at that it is doubtful if the total indebtedness of the members of societies is confined the latter alone. To meet the requirements of their members, the Co-operative Banks have been able to raise capital of their own to the extent of 29.67 lakhs, of which shares account for 16.34 lakhs, and the rest may be other forms of owned capital. In addition to these, they have borrowed 140.20 lakhs in one form or another. These carry fairly high rates of interest, and have relatively a short period of currency considering the nature of investment expected of these institutions. The reserves' and other funds amount to 13.33 lakhs, while the so-called undivided profits are estimated in the books somewhere between 6 and 7 lakhs. With these, as already stated, the Banks have not been able to meet even the minimum obligations, as their investments are proving

increasingly difficult to realise as and when required.

From the point of view of the community at large, or its representative, the Government of the province, it is our concern to see that the original purpose of these institutions—namely the infusion of new capital in the agricultural industry, and the liquidation of the indebtedness of the agriculturists—is fulfilled. But whatever the reason, the fact remains that this purpose has not been fulfilled. The working of these societies, or of the co-operative principle in general perhaps required a very much greater degree of education, intelligence and public spiritedness among the population at large than is forthcoming at the present moment. Even though these societies have been largely confined practically to serving the credit needs of the agrarian population and even though they never went into those other fields of co-operative enterprise, which would have aimed at raising the productivity of the land and organizing the agrarian community into a, better consciousness of their possibilities as

well as of their liabilities, they have not very well succeeded even in this limited objective which they were set from the start.

Before however considering the plausible solutions, it is necessary to classify the debts. Rural indebtedness may be broadly classified into the following categories:—

1. Debts of the landed classes, which consist of Zamindars, Malguzars, Talukdars, etc. It is difficult to say what exactly is the total debt due from these classes. According to the estimates of average indebtedness of these classes in Bihar, compiled by the Provincial Banking Enquiry Committee, the total debt of this class may be estimated at Rs. 25 crores with a total interest burden, of 3 crores per annum.
2. The next category of debts may be taken to be those debts which are secured on the proprietary or tenancy rights upon land,—however small the parcel of land may be on which these debts are charged. The

land and all that it produces from time to time, including the labour of those who work upon it, are pledged to make good the interest on such debts. These are essentially small cultivators, tenant farmers, rent receivers or actual thikadars holding and cultivating their own land. Not all of them are really productive classes, but the distinction between a producer and a non-producer, in this category, is so hard to make and maintain that we must resign ourselves to treating this vast category uniformly.

3. All other miscellaneous debts including those for which security rests on anything other than land.

1. *Landlords' debts*.—Generally speaking, there is ample security for the first class of debts, and properly husbanded, the produce of the estates may enable the landlords to liquidate their burdens in a reasonably short period of time. The problem is, therefore, one of organizing and mobilising the credit of these landed classes, with a view to

alleviate, as well as to liquidate, in a given period, the debt, and to guard against any future lapse into waste. This may be possible only if the Government takes over the responsibility of redeeming these debts and of financing the landlords.

It is suggested that a specially constituted Provincial Land Bank should take over all these debts directly from each debtor landlord. The landlords should agree that they would make annual payments at the rate of $6\frac{1}{4}$ per cent to the Bank in addition to such fraction of the capital as may be calculated to be required for the total debt to be liquidated in a period not exceeding 20 years. This may mean to the zamindars an interest burden of Rs. 1.56 crores instead of 3 crores per annum, and the most hopeful prospect of complete freedom from debt in a given period—say 20 years.

The Bank would then offer to the present creditors of the zamindars its own security for the regular payment of both interest and capital on this debt. But in return, the creditors must agree to scale down substantially the interest and accept payment in the

shape of Bearer-Bonds, negotiable, if they so choose, in the local market. The newly secured debt must bear interest of not more than 4 per cent which will be substantially higher than the prevailing market rate for the best gilt-edged security in addition to a calculated percentage for repaying the amount of capital in 20 years. If this scheme works well the amount of interest realised from the debtor landlords will leave a balance of 56 lakhs over that paid to the creditors. Out of this, 6 lakhs may be spent in running the Bank, leaving 50 lakhs to the Government if the proposed Bank is constituted purely as a State Concern.

2. *Cultivator's Debts.*—In the second category of debts, not only are the interest rates intolerably exorbitant but the mode of exacting payment makes them more burdensome than ever, and progressively diminishes the productive capacity, of the agriculturist. The volume of the debt, however, is so vast and its burden so pressing, that the orthodox principles of credit improvement would scarcely avail. More drastic methods including interference with contractual obligations,

are unavoidable if real relief is to be granted and agricultural finance is to be put on a sound basis.

There are several ways of granting relief to this class:—

(1) We might cancel completely the whole of such debt, on the ground that in reality in view of the excessive interest, it must have been paid several times over, taking the debt in the aggregate. There is, therefore, no ethical justification for continuing this unfair burden upon the principal source of our national wealth. We might even urge that the pressure of this debt is far beyond the capacity of the debtor to bear. Both these grounds have been employed by the leading nations of the world in respect of their national debt owed to non-nationals; and so there is neither ethical nor economic objection to taking these considerations into account. But neither of them would remedy the real evil. The religious sentiment of our people in regard to ancestral, or one's own, debts is so strong that many would collude with their creditors to stultify such a measure. This

sentiment may weaken in course of time; but speaking for the moment it is unlikely to be of any avail during the present generation; besides, even though we may establish a clean slate for the time being, there would be no guarantee that the social customs and economic factors responsible for the original incurring of the debt, would not operate hereafter and so replace a new debt for the old.

Whether we look upon the problem as a matter of affording relief to this agriculturist class, and so improve their condition of living, or as a matter of adding to the sum total of national wealth available for distribution among the people, the problem of agriculturists' debts will not have been solved by this simple measure of wholesale cancellation by itself. We must, at the same time, take steps to prevent future indebtedness by the same class for more or less the same reasons. That is to say, we must recast the Land Revenue policy **so** that the cash demand **should** not be made at a time and **in a manner as would needs drive the agriculturist to debt.**

Further, provision must also be made to afford additional capital needed by Indian Agriculture for its improvement. Wholesale and indiscriminate cancellation would not secure these objectives and at the same time make the actual relief offered largely illusory.

(2) Suspension of any payments on account of the interest or principal on such debts is another, and, in some respect, a better device. A Moratorium for a given period of say two or three years at most,—without affecting the Limitation Law,—would afford the necessary breathing space, and permit a more logical and scientific scheme being adopted to **deal** with the entire situation.

The first step in such a Moratorium of Agriculturists' Debts should be to register compulsorily all debts which are entitled to relief under the terms of the law affording the relief. The temporary relief will be a measure for facilitating "this record or census of debts. Without a clear retard of the amount to be redeemed we would be taking a long leap in the dark, which no practical statesman would venture upon. Besides, it

"would not be in the interests of the agriculturists themselves if a Moratorium is granted indiscriminately*.

Secondly, for the proper, productive, economic use of this device, it is of the utmost importance that the class relieved should not feel a complete exoneration from the burden: by a mere stroke of the pen. They must realise that this is only a temporary assistance. They must also understand clearly that Government or the community collectively, affording them this relief, is not doing so absolutely without any *quid pro quo*. The land redeemed, and production freed, from the incubus of the money-lender must be regarded as pledged to the community,—or its representative, the Government, carrying out this debt redemption transaction. In other words, no measure of debt relief would really be helpful in the long run, unless for legal purposes, the State is substituted as the

* The Bihar Money-lenders Act of 1937 seeks to register only money-lenders, and not the monies lent. For an effective measure of relief, the latter is much more important than the former. None but debts registered should be allowed to be enforced by process of law, or by any other manner. Then only could we have a clear idea of the real volume of debt and the burden of the interest charge; and then only can we devise really effective and lasting means to relieve the debtors.

universal creditor in place of the independent money-lender.

To what extent would Government be committing themselves in Bihar if they adopted this method for a permanent solution? Probably not more than one hundred crores of debt at most and possibly about three-fourths of that amount in fact.

The State—or Government,—would of course, not demand interest at the same time, in the same manner, and at the same rates, as was the case with the ordinary money-lenders. During the period of the Moratorium, no interest would, of course, run at all. But when the Moratorium is ended, the State' should step into the shoes of the creditor; guarantee to the latter interest and principal repayment at the reduced rates; and the entire land thus relieved should be considered as mortgaged to the Government, until the interest and principal of the debt redeemed have been repaid. The normal interest charge would, of course* be made out of the produce which may also be used to provide a part every year towards capital repayment to Government.

Whatever the ultimate end, registration of all debts as a condition precedent to their being relieved or redeemed, would have several other incidental advantages. It would in the first place, reveal the amount of interest charged, as also the innumerable ways in which the debtor is exploited by the creditor on the score of interest and capital repayment. When registration has revealed these illegal practices,—or even before the revelation takes place—a law should be passed permitting only a stated maximum rate of interest to be fully levied on such borrowings. Any debt, which is charged with say, interest at a rate exceeding $7\frac{1}{2}$ per cent and on which such interest has been paid for more than 12 years continuously, must be regarded *ipso facto* as having been repaid, and therefore, cancelled. No debt should be allowed to be enforced unless registered; and on registered debt no more than this rate of interest can be permitted subject to the maximum indicated above.

During the currency of the Moratorium, while registration of debts is in progress, **care will, no doubt, have to be taken to see**

not only that legitimate claims are not time-barred by the mere suspension of these claims, but also to see that no indirect methods are open to the creditors to defeat the principal objective of such measures. If a debt is void because it carried unpermissible interest, or has been running for an unconscionable period, it should not be recoverable by construing the transaction as an act of sale and purchase at a ridiculously low price. No suits, therefore must be permitted in respect of land, or against agriculturists, who are the subject-matter for such legislation, which would indirectly keep alive the debt or enforce the original transaction in other ways.

Besides revealing the excessive rates of interest, and other malpractices connected with money-lending transactions of this category, registration may also, help to prevent future indebtedness of an unproductive, wasteful and burdensome character. **If ultimate and substantial relief is made conditional upon the land-holders or tenant-cultivators agreeing never to go into debt without the approval of the authority set up**

for the purpose by Government; if it is likewise provided, that, henceforward, no debts will be recognized and enforced by process of law which are not incurred through one single authority set up for the purpose throughout the province, with branches in every district, subdivision or thana, the chances are that the large proportion of the present indebtedness of the agriculturists would simply be nipped in the bud in the future; while a good deal of even the existing debt would be scrapped automatically.

Incidentally, it would be advisable to enforce registration not only in respect of debts and debtors, but also in respect of creditors. If the law allows only those people to lend money to the agriculturists hereafter who are registered and brought under an organised institution of rural credit, an automatic machinery of supervision and control will be devised; and the problem would be immensely simplified for the future. It is of the utmost importance that this part of the proposed legislation should be simultaneous with the decree or legislation for

Moratorium, if not incorporated in the same enactment.

When all the debts have been recorded, together with the interest charged thereon, the next task would be to see how much of this debt should be recognized and admitted. As already remarked, all debts, which carried interest at rates higher than the maximum prescribed by law and on which double the amount of the principal has already been paid, must simply be cancelled. Debts which are not well covered by assets should also be scaled down so that the value of the assets at present market rate may be at least double the amount of the debts thus scaled down. We have to contend, in this connection with the profound ignorance and superstition of **our** agricultural masses. They are utterly innocent of the dodges of account-keeping; **and** we shall have to rely on **the books of the money-lenders for any evidence needed in this behalf. It is admittedly a tainted source; but there is no alternative. We must depend upon the spread of literacy among the mass and the acumen of the judicial and**

executive officers appointed to carry out such schemes to sift the grain from the chaff: to discover the real from the sham. Difficult as the task is, it is not absolutely impossible. All debts, again, on which the interest is higher than the maximum permitted by law but on which the repayment has not been such and for so long a time as to justify us in holding that the entire debt has already been liquidated, should be scaled down proportionately.

It is clear that unless the State takes up the responsibility of redeeming this class of debts and of financing the agriculturists, there is not much hope of achieving the purpose we have in view, namely, the improvement in the standard of living of the large mass of our people. What would, however be the agency through which the State can carry out this all important, and perhaps equally risky undertaking. In any scheme of financing, the agriculturists it is essential that the creditor should have an intimate knowledge of the borrower, not only in respect of his assets but also with regard to his character and general behaviour, and also he

should be able to keep himself informed as to whether the money borrowed is spent for the purposes for which it is taken. No organization run by paid servants and having offices in distant towns can ensure this supervision without prohibitive costs, because every time an officer is deputed to enquire about these things it will cost the organization in his pay and travelling allowance.

It is possible to undertake this task of redemption of this class of debts either (1) through an organization of a compulsory association of indebted agriculturists, or (2) by organising the money-lenders through a system of licensed village bankers, both working through the proposed Provincial Land Bank.

(1) It is estimated that this class of debt would aggregate about 125 crores and carry an interest at the rate of 25 per cent at the least. Let us assume to err on the safe side, that the interest is 20 per cent, in which case the annual payment on account of interest would be 25 crores without providing anything by way of repayment of the capital sum. Applying the same principle for the relief

and liquidation for this indebtedness which weighs far more heavily upon the debtor than in the former case, we shall have to consolidate all such debts through the process of registration of all existing debts and their being taken over by a compulsory association of indebted agriculturists of each village or any other unit that may be selected for the purpose.

The debts having thus been consolidated, the next step would be to ask the Bank to take over these debts, and use the power, which will have to be given by the basic legislation in that behalf, to scale down the rate of interests now obtaining. The maximum rate that the Bank should offer to the creditors should not exceed 2 per cent above the bank rate subject to a maximum of $6\frac{1}{4}$ per cent, and coupled with a provision for redemption not exceeding 1\ per cent for the same. This would mean that the aggregate return to the creditor will be $7\frac{1}{2}$ per cent for a given number of years, say, for a period of 25 years. This the Bank will guarantee to the creditors and will discharge its obligations by means of

annuities on this basis or equal instalments of payment combining both interest and a portion of the capital so that at the end of the stated period the complete burden would have been liquidated.

The agriculturist debtor will be expected by the Bank to pay $7\frac{1}{2}$ per cent by way of interest plus $1\frac{1}{2}$ per cent by way of sinking fund for capital repayment. This payment will be made good to the Bank by the compulsory association of the agriculturists referred to above. All the trouble and expense of collecting would be avoided since the association will function as the Bank's collecting agent free of charge. The Bank's receipts on this account will, on the basis assumed, amount to $11\frac{1}{2}$ crores, while the Bank's obligations on the same account, and also on the basis stated above, will aggregate approximately 9 crores. This will leave a margin of about 2 crores after affording relief to the debtors of 14 crores in round terms and ensuring complete liquidation of the whole burden in 25 or 30 years.

The saving of 2 crores on this account

added to the corresponding saving of 50 lakhs by a similar process of consolidation and liquidation of the zamindars' debts, would mean an aggregate addition to Government's resources of $2\frac{1}{2}$ crores. Allowing for expenses of management to that body it will still leave a net income of $2\frac{1}{4}$ crores from this source.

All the conditions precedent to the entire process of liquidation mentioned in connection with the zamindars' debts will also apply here *mutatis mutandis*.

(2) The village money-lender's establishment cost is very little and his travelling cost is nil because he lives in the village with his clients and can get the required informations without moving from his house. He is the man who can finance the cultivator cheaply if it is possible to create a condition for him to do so. Given the chance, he will squeeze his client to get the utmost out of him, but deprived of the chance, he is the only man in the world who can manage with the smallest margin of profit. At present he cannot work on a very small margin because for realization he has to run

to court, and necessarily to undergo a lot of expense, sometimes much more than he ever recovers. If this necessity is removed he is likely to work on a much smaller margin of profit. And I do not think it is impossible to organize the village money-lenders into a system in which he will be brought in contact with the large money market of the country on the one hand so that he may get credit when he wants, and he may not have to run to court for realization on the other. A system of licensed village bankers offers such possibilities. It is unnecessary to work out the scheme in all its details here and the bare outlines of the idea are given below :—

1. It is suggested that a new department be created which should be called the Department of Rural Finance with an experienced officer at its head who may be called Director of Rural Finance.

2. Gram Sabhas or Village Panchayats or Local Associations of Agriculturists should be established in every village or in groups of villages as is convenient.

3. The Provincial Land Bank already suggested should have branches in every

subdivision. The Director of Rural Finance should be *ex-officio* Governor of the apex bank.

4. The Provincial Land Bank through its branches will finance the village bankers, if and when necessary on a mortgage of their assets, at a rate of interest depending on the money market prevailing at the time in the country. The village bankers will be required to finance the cultivators on a prescribed margin.

5. It will be a primary condition of licensing that the village banker must work on a prescribed margin or on a salary basis, over the prevailing rate in the money market of the country, whether with their own money or with money advanced to them from the apex bank. In order to enable him to work on such a small margin he will be given the privilege of realization by awards granted by the Director of Rural Finance or his subordinates to whom he may delegate his power as at present is the case with the Registrar of Co-operative Societies.

6. The total amount of debts of this category, when registered and properly

scaled down as suggested above, is not likely to exceed 75 crores; and the task of redemption of this class of debt also should be taken up by the Government. The procedure of redemption will be the same as in the case of the zamindars' debts, except that in this case, the task of redemption must of necessity be combined with the task of further financing the agriculturists, if we are to avoid serious dislocation of agricultural production and marketing. It will be difficult and costly, for reasons already explained, for the proposed Provincial Land Bank to deal directly with each small cultivator. It is therefore suggested that for redeeming the debts of the cultivators and for financing them the Provincial Land Bank will work through the licensed village bankers. The registered and scaled down debts of each cultivator residing in a village will, on the security of his assets, be handed over to the licensed banker of that village, the amount of such debt being reckoned as principal from the date of such transference. The village banker will have to pay off all other creditors, funds for which he may find from his own

purse if he is able to do so, or which may be advanced to him, in the shape of negotiable bearer bonds, by the Land Bank, on the security of his own assets. As in the case of the zamindars' debts, these creditors also must agree to accept payment in negotiable bearer bonds. These bonds also will bear interest at 4 per cent per annum, payable annually or half-yearly, at the nearest branch of the Land Bank. The agriculturists will pay, on their debts, a prescribed rate of interest, which, for the present, may be taken at $7\frac{1}{2}$ per cent per annum, together with such portion of the principal as they are able or as the banker can realise by personal efforts. Realisation by certificate of award may be resorted to when necessary and when all personal efforts have failed. The $7\frac{1}{2}$ per cent interest to be realised by the village bankers: will be apportioned on the following basis

Village banker.

- (a) 1 for the entire debt taken over by him; and in addition,
- (b) 4 for such portion of the debt as is due to himself and as is advanced

by him from his own pocket to pay other creditors.

Provincial Land Bank.

- (a) $2\frac{1}{2}$ on the entire debt; and in addition,
- (b) 4 for the amount of bonds advanced to the village banker.

The entire amount of principal realised should go to liquidate the bonds, at least for the initial years of the operation of the scheme, in order to enhance the credit of these bonds in the market.

The total amount of interest on 75 crores at $7\frac{1}{2}$ per cent per annum will come to Rs. 5.63 crores, of which 3 crores will go to pay the bond-holders or village bankers as the case may be, 75 lakhs to village bankers and 1.88 crores to the Land Bank. Of this 1.88 crores, about 38 lakhs may be required for expenditure in running the organization, leaving 1.50 crores for provincial needs.

Cash will be required for further financing the agriculturists, which may be found, without very great difficulty from any or all of the three following sources—(1)

deposits to be received by the Land Bank, (2) deposits to be received by the village bankers, and (3) the capital resources of the village bankers themselves. The procedure the rate of interest to be charged to the agriculturists, and the apportionment of interest realised will be the same as given in the preceding paragraphs.

7. All loan applications from villagers should in the first instance be submitted to the Council of Local Association who will scrutinize them and pass them on to the village banker with their recommendations. The village banker will have no option to grant any direct loan to any villager without the recommendation of the village Council but he will have the right of refusing any application recommended by the Council if he considers that the investment is not safe enough. In order to prevent this right being misused collusion should be made a punishable offence. In this way it will reduce the room for corruption and malpractices to the minimum.

8. The village banker will be allowed to receive deposits from the villagers up to a specified limit and to advance on account on

a cash credit fixed by the Council of Local Association at its annual general meeting for those members of the village who have assets and who may want such seasonal loans.

9. The village banker will be required to keep proper accounts and his books will be liable to inspection by the staff of the Director of Rural Finance, and of course, by Income-tax Officers.

10. It will be incumbent on the Council of Local Associations carefully to scrutinize all loan applications for meeting expenses of marriage, *sradh* and litigation and no application should be recommended without very great justification. It may thus be possible, to stop all debts on account of unproductive expenditure in future as far as possible.

In this scheme of controlled finance for the agriculturists the money-lender remains **the financier of the village, he is brought in contact with the larger financial organizations of the country to supplement his resources whenever necessary/ and his methods of business and rate of interest are brought under control in a system of village organization which combines in itself the essential principles of co-operation.**

CHAPTER IV

RE-ORGANIZATION OF LAND REVENUE SYSTEM.

One of the obstacles that stands in the way of organizing our villages for higher production of wealth and its better distribution among the people is the prevailing systems of land revenue and land tenure. The existing land revenue system of Bihar, although founded on age-old customs, was devised by early British Rulers, more with a view to secure an assured income to **the Government Treasury** than for the purpose of development of agriculture and material progress. Regular collection of revenue **was of greater importance to them than better cultivation of the land.** The system provides enough material for a study of the science of collection of revenue and rent **than of creating Revenue from the land.** The system has thus led to the rise of a huge parasitic organization which stands between **the State and the tenant and lives on the income derived from land.** The result has

been that the rights in the land of non-producers have multiplied and diversified in many directions while the margin of income left to the actual producer has been reduced to mere wages for his labour or even less than that. This system has also been responsible for bringing about maldistribution of right of ownership of land among producers and non-producers with the result that the bulk of the cultivators has not enough land to occupy themselves for more than a fraction of the year while non-producers can afford to live a life of idleness because they have acquired enough income from their right of ownership of land. To put it briefly: some people have more land than they want so they need not work, while others have very much less than they need, so they cannot get work; consequently a tremendous amount of man power in the villages goes to waste.

This condition is more accentuated in provinces where the Permanent Settlement prevails. Lately much has been said and written for and against the Permanent Settlement and the zamindari system, and

it is not my purpose here to enter into an academic discussion of the advantages and disadvantages of this system. Some facts are however quite clear, and they are: (1) that nothing can be permanent in the face of changing circumstances, (2) the zamindari system forms an integral part of the economic structure of our society and it is inconceivable to formulate any plan of provincial reconstruction without taking into account this essential feature in the economic life of our people, and (3) the system today stands as an impediment in the way of any plan of an all-round material progress for the agriculturists of the province.

It is no wonder therefore that the pressure of popular opinion exerts itself towards liquidation of the zamindari system entirely and its absorption by the State, in this case the Provincial Government, without any compensation being paid to the zamindars. This remedy, however desirable it may appear to be from certain points of view, does not lie within practical politics at the present moment. On the other hand, the course of events is fast making it

extremely difficult for the landlords to maintain their former position in respect of collection of rent from their tenants and meeting their obligations. The only practical remedy that suggests itself under the prevailing circumstances, is that the Government should acquire the zamindari rights, perhaps on a voluntary basis at first and then compulsory if experience dictates, on payment of reasonable compensation.

To facilitate acquisition of zamindari rights by the Local Government, legislation of a permissive nature will have to be undertaken. It is not necessary for the Government to find any cash for the purpose of acquisition, as payments may be made in bonds issued on the security of the excess revenue that will be received under this scheme which, if applied to the entire body of zamindars in the province of Bihar and if a price equal to fifteen times the net income of the estates is taken to be most reasonable and equitable, is likely to make a substantial contribution to the Provincial exchequer. It is not expected that there will

be unanimity of opinions as to what ought to be a reasonable and equitable purchase price of the estates. It is clear, however, that certain factors will have to be taken into account in determining a fair price. First of all, the proposed legislation is to be permissive, because, under the Government of India Act, there can be no compulsory acquisition of zamindary rights. To make such legislation really effective it is necessary that the price offered should be attractive to the general body of zamindars. Then again, although no objection may be raised under the Government of India Act to a permissive legislation of this kind, the income received by the zamindars from the bonds herein proposed to be issued to them in lieu of the cash price, will be liable to assessment of income-tax, because the provisions of the Permanent Settlement will no longer apply to such incomes.

Secondly, after the present rent reduction operations have allowed all reasonable reductions in rent, the security of the net income left to the zamindars will considerably

enhance, and, therefore, is likely to command a greater price in the open market. It is well known that a few years back the zamindary rights were prized more than anything else by people having money to invest, on account of the security of income offered by such rights, and a price of thirty years' purchase was not uncommon in the sale of zamindari. There is no doubt that reduced rents will bring back that security to some extent.

Thirdly, all estates cannot and should not be priced on a fixed formula. Estates which have been acquired in recent years by investment of capital and of which the owners have not yet been able to recoup much of their capital, should be valued differently from those estates which are hereditary or which were acquired long ago or which were acquired by mortgage decrees involving investment of small amounts of actual capital. On this basis, the price should, in all fairness, vary from ten to twenty years' purchase. An average fifteen has, therefore, been adopted in the calculation given here.

The outlines of legislation to be undertaken are somewhat as follows :—

1. A landlord, desirous of selling his rights to the Government, should submit an application to the Collector of the district in a prescribed form for acquisition of his estate and the Collector may be empowered to acquire the same.

2. The Collector after enquiring into the details in respect of the rights, etc., of the estate and its net income, shall fix the price of the estate.

3. The price fixed for the estate will be subject to appeal to or revision by higher authorities.

4. The final price thus fixed will be paid in negotiable bonds carrying interest at $3\frac{1}{2}$ per cent per annum payable half-yearly or annually as considered convenient.

5. Estates which are encumbered beyond the value of its assets and estates involved in serious litigation about title or encumbrance may be acquired after the debt has been liquidated or scaled down according to the plan set out in the previous chapter or

the litigation is finally disposed of by a competent court.

Under this scheme the zamindars are not likely to be worse off than they are now or likely to be in the immediate future. Of course the net income received by the landlords as interest of the bonds held by them will be less than the calculated income from their estates, but the relief that they will feel, and the freedom to take up other work that they will have, are ample recompense for their nominal loss. I say nominal because very few zamindars in Bihar have any real net income to enjoy; constant litigation and other causes generally swallow up all their income, and that is why many of the zamindars are found to be steeped in debt at present. According to the plan set out here a zamindar whose calculated net income may be Rs. 4,000 per annum will receive a bond of Rs. 60,000 or so yielding Rs. 2,100 or so per annum. It is expected that the large bulk of zamindars will welcome this sort of assured income free from all trouble and expenditure

The Government will also have its revenue increased considerably. At present out of a total rental including cess paid by the tenants of about 9½ crores, the Government demand amounts to a little over 2 crores. After the rent reduction operations, undertaken by the present Government, is completed, it is likely that the amount of demand from the tenants will be reduced by at least 25 per cent, bringing the total demand to about 7 crores. Assuming that the Government succeed in acquiring the entire body of zamindari rights in the province and the net income of the estates is valued at 5 crores, Government will have to issue bonds to the extent of Rs. 75 crores on which the annual interest charge will amount to 2.625 crores. Extra expenditure to be incurred by the Government for collection of rent may amount to 25 lakhs. Out of the balance of 4.125 crores, 1.125 crores may be utilised for redemption of these bonds leaving a net balance of 3 crores for current expenditure, which means an increased revenue of 1 crore from this source. Apart from this, it is expected that by the adoption of this device the entire amount of bonds will

be liquidated in about 50 years or earlier if increased revenue from other sources permit it. At the end of this period the entire amount of rent will be available for general revenues. This will also increase the credit of the Government and, therefore, their borrowing capacity.

Once the State takes direct control of the land and removes all intermediaries between itself and the tenants, it will be possible to place our land revenue system on a better footing. In Bihar particularly the antiquated land revenue system is very largely responsible for the anomaly that Bihar, assessing the richest soil in the whole of India contained the poorest inhabitants. As I have already said, the basis of our system of collection of rent will have to be thoroughly overhauled, keeping always in view that we have to create more revenue from the land than is at present the case.

With the acquisition of the proprietary rights by the Government, the distinction between rent and revenue will be blurred, and in the assessment of rent the Government will practically have to apply the principles

which are or rather should be decisive in the assessment of taxation. The basis of our assessment of rent will therefore have to be revised to implement this principle. At present the basis of assessment is the unit measure of land with due allowance being made for its quality. This presses very hard on the small tenants who own one, two or three acres of land. The small tenant has to pay at the same rate as a tenant with a holding of 500 acres. It is desirable that the possibility of assessing rent on more or less the same basis as income-tax should be considered as an integral part of the scheme. This will imply assessment on an ascending scale according to the size and quality of holding, in other words, on the amount of income derived from cultivation by each individual farmer. This will ensure a more equitable distribution of the wealth produced from the land and thus help in raising the standard of living of our people.

CHAPTER V.

AGRARIAN RECONSTRUCTION.

The problems of rural indebtedness and of land revenue which have been dealt with in the previous chapters are of course a part of the whole problem of rural reconstruction, the crux of which is the rehabilitation of agriculture which at present is, as is well known, in a moribund condition. This problem is, from the point of view of preparing a plan, more difficult to tackle, as there are hardly available any data regarding the economic conditions of the bulk of agriculturists. We do not know with any degree of definiteness for example, how many agriculturists there are, i.e. how many land-owners, how many landless agricultural labourers, and the like. The Census of 1931 records that there were 13.64 millions actively engaged in pasture or agriculture. Of these—

Non-cultivating- proprietors no.	119,966
Estate-agents, etc., and Managers of above.	1,067

Estate-agents of Government Estates	251
Rent Collectors and clerks ...	20,502
Cultivating owners	375,126
Tenant Cultivators	8,842,429
Agricultural labourers*	3,970,963

Each of these classes had an almost equal number of dependants, if not greater. But we do not know anything about the average size of the estate of estate-owners, nor its value. Much less can we classify estates according to their sizes; still less the size of holding held by tenant-cultivators, their cost of cultivation; the value of the crops, or the balance if any left to each. Many of

*The "Bihar Provincial Ranking Enquiry Committee's Report gives the following figures :—

Ordinary cultivators	21.5
Field Labourers and Farm servants	5.0
Foresters, stocksraisers, fishers and Hunters	0.5
Landlords* agents	0.18
Landlords	0.32
Mining and Industry	2.0
Trade and Transport Public Administration	0.2
Miscellaneous	1.5
Total	32.75

These are, needless to add the figures of total population, i.e., including workers and dependants.

the figures given in this chapter are, it need hardly be repeated, mere guess work. From the standpoint of preparing a comprehensive plan, however such data are as good as non-existent. Hence one of the first tasks preliminary to making a plan of agrarian reconstruction would be to compile the basic data needed for such an undertaking.

Another difficulty in this connection, also of a preliminary nature, is to prepare or lay down the standard or norm of development, the objective of our plan of reconstruction we are seeking to attain and the means by which its success could be gauged. Thus for example, as already pointed out, the province is not self-sufficient even in the matter of primary food resources. How far is such self-sufficiency attainable? How shall we judge what constitutes such self-sufficiency? We may, for instance calculate *a priori* a proper scale of food requirements of each adult male or female or child, calculated with due regard, not only to the physical needs of mere existence, but also in accordance with the economic efficiency and

civilised amenity of each such worker. A programme must then be prepared, so that, within a given definite period of time—say five or ten years at most—this minimum of living should be attained by each agriculturist.

Similarly a minimum standard regarding the other aids and needs of agriculture and amenities of civilised existence, with due regard to the requirements of modern condition must be prepared, and must, in the space of time, laid down in the plan, be assured to each agricultural unit, whether an individual a family or a village, as the case may be. Such a standard of attainment, once prepared and prescribed, should be regarded as the irreducible national minimum which we must strive our utmost to attain before we can call ourselves a civilised people.

Let us now state the problem before us as part of the comprehensive plan or programme of Reconstruction we are contemplating. The task of agrarian reconstruction in Bihar, is a two-sided problem. On the one hand it consists in bringing about an

increase in the productivity from the soil sufficient to meet the standard given above; and, on the other it seeks to secure a better, a fuller, and a more equitable distribution of the total produce thus increased. At the present time, it is universally admitted that the aggregate productivity of wealth in Bihar from this primary source is too low to afford a reasonable standard of existence to the agriculturists. Such as this productivity is, it is very considerably prejudiced by the handicaps on the producer, or the demands upon the produce of the land on account of unproductive items; which still further reduce the balance available to the agriculturist after all the demands upon his produce have been satisfied. So the problem, taken collectively, has a dual aspect, which must, however, be tackled simultaneously.

We would consider this problem,' then in these pages in its component aspects, under the following main heads :—

1. The increase of productivity, including consideration of the volume and variety of available production, and the possibility of its improvement in quantity, quality, **and**

variety so as to minister fully not only to the primary needs of man in regard to food but also to the secondary needs of civilised life, i.e., raw materials for industry.

2. A review of the existing hindrances to production, which, make the volume of production less than it well might be expected. The hindrances are grouped under the following sub-heads :—

(a) The agriculturists' debt and its incidence upon the total produce from the soil.

(b) Scattered holdings and their microscopic size on an average. These increase the cost of production, or prevent the volume of production per unit from being such as it well might be.

(c) Deficiency in the aids of production such as cattle, manure and fertilisers necessary to add to the volume or production; water-supply, etc.

(d) Poor seed and consequent defect in the quality of the crop raised.

(e) Inadequate and deficient storage,, grading, transport and marketing organisation.

(f) Inadequate financing for the movement of crops.

(g) Lack of reserve, or insurance for the normal contingencies of agricultural life.

(k) Establishment of subsidiary industries connected with agriculture, their financing and administration.

(i) The difficulties in the way of better and more equitable distribution of the total produce raised.

(j) Regulation of prices, so as to avoid instability or uncertainty in making estimates.

1. *Increasing Productivity.*

Taking these points in the order given above, let us first consider the existing aggregate agricultural productivity in this province. The following are amongst the most important agricultural products of this province, in the quality and quantity shown against each rice, wheat, maize, seeds, barley, jute and sugar. The yield per unit of production compares very unfavourably with many of the sister provinces, and still more so with other competing countries, producing the same commodities. The

standard of agricultural productivity in this country is known to be extremely low compared with most other countries in the world; in Bihar it is, if anything, still lower.

The question, then automatically resolves itself into this: How can we increase the total as well as the unit of productivity in this Province so as to make up the deficit now to be found in this regard ?

Apart from the handicaps to productivity which, we shall notice separately when we shall also consider the remedies for those handicaps, there are three ways of improving this production, which may **operate** concurrently: (1) We may seek to increase the quantity of yield per unit as regards **the** crops actually raised; (2) We may add to the number of crops grown in the Province.

The third method of increasing the land under cultivation, by bringing under **the** plough the so-called culturable waste, is also an effective method, **but as it involves considerable capital cost, we would not consider it under this section.**

The first will depend for its success very largely upon the improvements in the methods

and implements of cultivation as well as in the general management of the agricultural land. The second will depend even more completely upon the nature of the soil, and the climatic as well as other considerations bearing upon such matters.

To carry out the first set of improvements for raising the unit yield, the entire agricultural life of the province will have to be rehabilitated and reconstructed as noticed below; its existing handicaps removed or remedied and its yet unknown possibilities' developed. When all this is done, the unit as well as the total yield will have increased far beyond the point we can now lay down in that behalf with our very defective knowledge. Needless to add that what has been said so far regarding the agricultural wealth proper applies also to the cattle wealth and its produce.

The main difficulties in the way of carrying out the first type of improvement, and their most readily feasible remedies, are noticed in the next section. But let us consider here the amount of yield in relation to the requirements that have to be met out

of such produce. These requirements must be considered not merely in regard to food, but also in regard to the other needs of civilised life, e.g., raw materials for industry; which have to be either produced at home or acquired by giving in, exchange commodities or services produced by the agriculturists. For suitable food material for a proper healthful diet, there must be variety ; and that could only be obtained by a suitable system of exchange of crops raised by one set of agriculturists for other crops, or other requirements of life. The adequacy or otherwise of the amount of crops, food or raw materials of industry available, must be judged by the volume of population that, has to be supported upon the soil. It is for a committee of dietetic experts, including those who have any experience of the efficiency of labour and its relation to the food and commercial crops to determine what Bihar must produce to assure a prescribed minimum diet to each child and adult citizen. Another similar body working simultaneously and in co-operation with the first, must determine what are Bihar's possibilities in producing

from her own soil raw materials of modern industry; and how they are to be worked up. The correlation of the two will give us the standard we are seeking to attain.

This will, of course, take "some time to formulate. But the immense urgency of such an enquiry cannot be questioned by any body. For the purpose of the present discussion, let us assume that (*a*) in regard to food crops the province must produce enough to assure to each citizen,—man, woman and child—the irreducible minimum of food in a proper diet, which would mean at least two full meals a day. The present roughly calculated deficit, in regard to food alone, of 5 crore maunds will not only have to be wiped out but an appreciably larger quantity will have to be raised, as much to provide an adequate diet to the community as to assure other amenities of life. This may mean that the present yield from Bihar agriculture of about 18 crore maunds must be raised, within the period of the plan, to 25 crore maunds at least of the different food crops.

In regard to industrial raw materials Bihar must produce enough to supply all the existing industrial plants with all the raw material they need or alternatively must have enough industrial plant of its own to consume all the raw material produced in the province. The last links up the present section with that which follows ; and so we shall say no more on that topic now.

We may incidentally point out that of the 42.30 million people in the Census of 1931 for the whole Province of Bihar and Orissa the earners were 16,911 millions, working dependants 698,023 and non-working dependants 24,719,412, i.e., barely 40 per cent of the people were actual producers This proportion could hardly have changed since the separation of Orissa from Bihar Given the disproportionate pressure upon agriculture, and given also the excessive pressure of non-earning dependants, the conclusion is inevitable that a redistribution of the population as between agriculture, industry and commerce in the aggregate, is absolutely necessary. We have already indicated before what we consider those

proportions should be, and so need not repeat ourselves on this point here.

2. *Handicaps on Agrarian Production.*—Of the numerous problems on the solution of which will depend the agricultural prosperity of Bihar, there are some which are fundamental of these, the problems of Finance, Fragmentation, Fodder and Fuel are decidedly the most important of all. Irrigation is perhaps of major importance in South Bihar and floods are of similar importance in North Bihar, but these four remain fundamental everywhere. One may call them the four F's in agriculture as we know the three R's in education. We have already dealt with (a) rural indebtedness and agricultural finance and we may now proceed to deal with the problem of consolidation of holdings.

(b) *Consolidation of Agricultural Holdings.*

Second only to the problem of Agrarian indebtedness, is that of the Consolidation of agricultural holdings. Thanks chiefly to the law of equal inheritance among the male children of a landholder, each successive generation witnesses a break-up of the land held by its predecessor, which impedes

cultivation, and reduces the aggregate productivity of land actually in cultivation. The law of equal inheritance is, of course, not a peculiarity of India, or of the Hindu legal system. There are many other systems of jurisprudence, which permit of equal inheritance; and that, too, for all children, male as well as females. These countries have not the saving factor which India possesses, viz., the presence of a joint, undivided family, which can hold intact the property belonging to a family, until partition comes knocking at the door. The intrinsic advantages of Joint Family has necessarily commended it to all communities in India, even when they do not follow the Hindu legal system; and so it is a feature of the social organisation in this country, which may be taken almost to be a national institution.

The problem of *morcellement*, or excessive subdivision of agricultural land, is particularly severe in India, because of the lack of any alternative employment to the growing population. In other countries, wherever they have adopted, on emancipating from a

custom-ridden social organisation, or the chains of feudalism, the system of equal inheritance in preference to inheritance of all real estate by primogeniture, they have not felt the full brunt of the problem, because of the simultaneous introduction of new industry, which took off, as it were, the surplus population from land, and gave it alternative means of livelihood in the new mechanised industry. The social problems of the new Industrialism are, indeed, not to be minimised. But we are not concerned primarily with them in our present discussion; and we will not complicate it by any needless reference to them, beyond just repeating the initial observation in this work that all the problems of national reconstruction are intimately connected one with another, that the solution of any one of them will have profound reaction upon one another and that they all must be dealt with simultaneously in a comprehensive well-thought-out plan prepared in advance.

The emphasis laid increasingly by Gandhiji on the revival of handspinning and other

village industries is the result of the subconscious recognition of this plight of the agriculturist,—the necessity to support an increasing population from a diminishing source of livelihood. But the revival of ancient handicrafts, in this age of power-driven machinery, which would do the same work more neatly, efficiently, and economically than any human labour engaged in the same task, will not avail to solve the problem, so long as competition from the machine-made goods drive the products of handicrafts from the market, and render the struggle for existence harder than ever to those engaged in handicrafts as subsidiary to agriculture. The problem is not so much a problem in production; it is rather a problem in the equitable distribution of wealth among the producers. Handicrafts re-organised may add to the standard of life among the starving cultivators and the still more destitute landless agricultural proletariat. But they cannot remedy the fundamental evil of an individualist society in the maldistribution of a very inadequate amount of new wealth produced in the community.

Lacking in any adequate, alternative employment in industry, the agricultural proletariat in India has been growing, and making the problem worse in every succeeding generation. Not even the heavy death rate of India solves this problem of existence for us. The Settlement Officers in the British regime never seem to have considered the advisability of a standard from the standpoint of adequate employment for the labour and capital engaged upon a given piece of land, as well as from the standpoint of providing the necessary maintenance to the agriculturist and his family. In isolated parts, such as the Deccan of the Bombay Presidency, the first Settlement Officers seem to have had a glimpse of the problem from the former standpoint. But even then, they never took care to define a Standard Holding; while Government omitted altogether, even in the ryotwari tracts, to lay down that such a Standard or Unit Holding should not be split up into further subdivisions, which might become hopelessly uneconomic to cultivate, and incapable of supporting the human element depending upon it. Land belonging

to the same cultivator becomes fragmented by the desire of several sons of the same father to possess each piece however small from every field or parcel of land owned by their father. This means that the same land belonging to the same cultivator is scattered in infinitesimally small parcels in the different part of the same village so that in the mere time involved in journeying from one piece to another the cultivator wastes an incalculable amount of energy of himself, his family, his cattle, etc. In Bihar this last is the most important cause of land fragmentation, and has resulted in microscopic holdings which it does not pay to cultivate but which are nevertheless cultivated because no land can be left uncultivated owing to the extreme poverty of the people.

Agricultural land has thus come to be subdivided into infinitely small fragments each so microscopic as to be unable to provide full employment to the human and animal complement of labour and implement associated with agriculture. However caused, the hardship of such morcellement is emphasised

by the incidence of such subdivision among successive heirs or holders, inasmuch as the land belonging in the same village to the same, individual becomes scattered in different strips when it comes to be divided among the brothers in the next generation. Our people are so ignorant that they would like to have their proper share of each bit of land owned by their father; and so the holdings get more and more scattered. The average holding in the south is about two acres; while single holdings of less than half an acre, are by no means unknown. In the Peninsular Plateau it was calculated that 16 acres would just afford field or occupation enough for a pair of bullocks and wooden plough; while 8 acres at the lowest barely suffice to provide the food or its equivalent for an average family of 2 adults and 3 children. Such scattered and microscopic holdings are naturally more costly to cultivate, since, they do not afford full occupation even to the small stock of primitive implements the Average Indian agriculturist commands. They require meticulous boundary marks, which further

diminish from the land actually open to cultivation. And, finally, they make the burden of land-revenue demand fixed in cash originally made against a joint holding, more than ever onerous.

What are the remedies against this evil? Three distinct solutions may be mentioned, as having been tried in one country or another, and as likely to promise a varying measure of success:—

- (i) Right of pre-emption to one of all co-heirs to a given piece of land;
- (ii) Summary collectivisation of land, so that all private property in this source of producing new wealth is abolished; and
- (iii) A compromise between these two,—some form of co-operative cultivation, which would, for all practical purposes of cultivating the land, provide all advantages of collectivised land, but which, at the time **of distributing the produce from it, would recognise private property in such land, and distribute with due regard to the rights of the**

individuals whose property has thus been semi-collectivised.

(i) This is impracticable in India, for a variety of reasons. The average cultivator is so poor in his life-time, so laden with debts, that there is not reasonable hope of his successor being able to buy out his brothers or co-heirs, and keep the land inherited for himself intact. Land alienated in the life-time of a holder in payment of debt, land-revenue, or other usual misfortunes, is impossible to bring within this system of pre-emption, even if it was otherwise feasible. The possibility of obtaining money from some central banking institution as is contemplated in the previous chapter, to such as would adopt this remedy may also be discounted inasmuch as the land thus kept intact will not provide security enough to the lender.

Besides, even if this method were otherwise practicable, it would be useless, in so far that it will not avail against lands actually subdivided, and holdings * already too fragmentary to be economical in cultivation, the problem of preventing further

fragmentation is not less serious than that of consolidating. Pre-emption will not only not consolidate lands already fragmented; it will never help to create a standard economic holding and maintain it intact for all time to come.

(ii) Collectivisation of all sources of producing new wealth in the country, including agricultural land, is not a heroic measure, but, in the opinion of the present writer, an inevitable necessity, if the national economy of India is to be placed on a sound footing. Neither its ethical, political, or economic aspects seem to be so deterrent as to make one hesitate at adopting this radical cure. At the moment, however, it seems unlikely that the dominant political thought in the country would commend this process. And section 299 of the Government of India Act, 1935, might even be cited as an effective bar against this solution. For though this section does not prevent acquisition of productive enterprise by the State, it insists upon compensation being paid to the original proprietor who is to be dispossessed in favour of the State. On account of these difficulties

collectivisation has to be ruled out as a measure of national reconstruction.

(iii) There remains only the alternative of co-operative farming. But even here, though private property is not denied in principle, the solution would be utterly unavailing if, for tilling the land, selecting crops to be sown, utilising implements and cattle, harvesting, processing and marketing the crops raised, all operations are not carried out in common as in a collectivised organisation.

It is here that the new Provincial Governments can impart a new and healthy impetus. No section or schedules of the new constitution, no clause in the Instrument of Instructions to the Governors, stands even nominally in the way of a co-operative re-organisation of all agricultural land in any province. By permitting, or even enjoining, compulsory association of all agriculturist holders in a given unit, a village or **& Taluqa, the cultivation, harvesting and marketing of crops, the supply of water, manure and other aids to improvement of agriculture, the giving of labour by men and cattle as also the**

sharing of the produce, or its equivalent in money, in accordance with proportions corresponding to the lands brought into this co-operative association, the quantitative as well as qualitative production can be very considerably improved from each unit. There are a number of semi-penal provisions, which could be introduced in such a legislation, to make the co-operative association as universal and comprehensive of the agriculturists population as may be possible under the circumstances. If the debt redemption legislation or machinery outlined in the preceding section is adopted the Provincial Government will already have got a strong hold on the agricultural land, which they could easily utilise to facilitate the setting up of such compulsory, comprehensive, universal Agricultural Producers Co-operative Societies, Combines or Federations.

Even the prosecution of the village industries, or handicrafts, serving as sub-sidiary occupations, may be better utilised in the co-operative framework. Any radical

reform in the land-revenue administration, such as its assimilation to the ordinary income-tax would not be wasted or neutralised, in so far as its objective is relief to the cultivator in the shape of greater produce being left to him for personal use. All kinds of agricultural risks, famine, cattle plague, crop pests, may be insured against very economically on a mutual basis, especially if these primary village co-operative associations are combined into Taluqa Unions, District Combines, or Provincial Federations of such Associations dealing, as organised units for all purposes of production and distribution, including exchange of agricultural commodities. Wherever and whenever they need the aid or collaboration of other national institution, such as the Central Credit Organisation, the same could also be availed of more economically and fruitfully and for the purpose of adding to the aggregate productivity, in quality as well as quantity, of the produce. Even the utilisation of culturable waste land could be more simple and direct, if once this principle of

compulsory co-operation for production, marketing and distribution of agricultural commodities is adopted.

It would take us too far beyond the scope assigned to this work to undertake a sketch plan of such a compulsory Co-operative Association of Agriculturists, or their closer welding together into District Unions, or Provincial Federations. The model provided by the Joint Stock Corporation on the one hand, and a large municipality on the other, may well serve to forge out an appropriate constitution for such an organisation, to evolve its rules and regulations for detailed work, and to frame guiding principles for their proper administration, supervision and control.

The simplest method would be an enabling or permissive Act of the Provincial Government Legislature, to authorise the setting up in each village the Agricultural Producers' Co-operative Association, holding all their cultivated lands in co-operative community,, and tilling and harvesting these lands as well as marketing their crops, in co-operation. A council of Village Co-operative, elected by

the members as the Village Panchayats, to be selected from among the members of such an association, may be authorised in consultation with local agricultural staff, to make rules and regulations for determining the crops to be sown, the area to be sown, the labour of man and animal to be provided by the various co-operators on the several units of cultivation within the village at the time of ploughing, sowing, watering, or harvesting the crops, transporting them to market, or store-house, etc., and for distributing the net produce or cash equivalent in accordance with the Griginal contribution of each member to the common pool, both **in** the shape of the land as well as in the shape of labour, material, cattle, implement, etc.

The Co-operative Association can become a lever with which, if the Act is carefully framed, the apparently voluntary association of co-operators should be converted in **reality** into a compulsory, universal **organisation**. **If all improvements made at public cost or all relief granted to the 'agriculturist by Government is made available only to those who are members of a Village Co-operative**

of this kind, no one would afford to remain out of it very long.

If after a time, the spread of the movement is sufficient to warrant the belief that it is accepted by the people, it can well be turned into a compulsory administrative organisation. The larger landlords may, in the first years, be excluded, especially if they show themselves inimical to this organisation. But the differential treatment that may have to be meted out to them, in respect of their debts, the revenue demand against them, or even the legislative reduction in their own rent charges, will soon compel them to fall into step with the rest of the agriculturist population, and conform to the new standards of co-operative production and equitable sharing of the result. The larger holdings of these Zamindars, Malguzars, or Taluquardars will have to be taxed in respect of the transfer from the dead to the living by means of the imposition of death duties or inheritance tax. If a suitable system of such taxation is devised, land reform in all aspects of agrarian life can be accomplished with the least disturbance or dislocation of

existing economy; and within a limited period of not more than two generations, at the outside.

With a view to gain first hand experience it is essential to start experiments in selected centres somewhat on the following lines :—

(1) Only one or two villages should be chosen in suitable centres.

(2) It is contemplated that plough bullocks and other cattle should remain in individual possession to start with and should be looked after by them as at present. Similarly ordinary agricultural tools and implements should also be provided and kept by the individual cultivators.

(3) At the outset the selected village should be carefully surveyed with a view to prepare an accurate map showing the position of each small plot and records of ownership of each plot.

(4) Then the villagers should be induced to join in collective farming. Legislation will perhaps be necessary to compel any unwilling tenants if the majority preferred to go in for collective farming in a selected village notified for the purpose. The law should

also provide that once a collective farm is formed, no cultivator will be allowed to leave it within five years; at the end of the five years if the majority wants to revert to individual cultivation and to get back their small plots they should be allowed to do so and the cost of preparing the small plots as they originally were would be borne by the Government.

(5) All boundary *ails* should be broken down and the whole area should be treated as one farm. It should then be laid out into convenient blocks suited to the rotation of crops to be followed.

(6) In the beginning of the each cropping season an estimate should be prepared of the number of bullock-days and man-days of labour required to contribute the same in proportion to the area of land in his possession. He may contribute it either by his own labour and that of his own bullocks or he may pay for them in cash or in kind.

(7) Improved seeds and manures will be provided by the Agricultural Department free for the first year and on loan without interest thereafter.

(8) After harvest the produce will be divided among the cultivators, in proportion to the area and quality of land in the possession of each of them.

(9) The cultivators will have to provide themselves with ordinary implement, but improved implements may be provided by the Agricultural Department for demonstration or on loan. If tractor cultivation is required once a year or once in two years it may be had on hire.

(10) Rent has to be paid to the landlords by the individual cultivators as at present.

(11) Partitions and sales of land within collective farming may be allowed, but such partition or sale should be in respect of the share of the produce only. Nobody should be allowed to separate out his plot from the collective farm.

•(12) For absentee owners or owners who are unable to provide the necessary labour on cash payment in lieu thereof, advance will have to be given which should be recouped after harvest from the produce before the payment to them of their allotted share.

When a certain amount of experience has

been gained in this way, large-scale operations for co-operative cultivation may be started.

(c) *Aids to Agriculture,*

We may consider these into four main heads:—

- (i) Cattle;
- (ii) Manure and fertiliser;
- (Hi) Tools and implements; and
- (iv) Water-supply.

(i) *Cattle.*—Let us take these in order. Though there is some information, as already mentioned in a previous section of this chapter, on the first head, it is difficult to say how far the cattle wealth in this Province is in proportion to its agricultural requirements. The extent of land, which a pair of bullocks, for example, can cultivate economically naturally varies according to the character of the country and of the soil from district to district. Whatever that may be, the exact cattle requirements of a given agricultural land in the different parts of this province have never been carefully, scientifically, calculated. We cannot, therefore, say whether the available cattle supply

is in abundance, or too scanty to be really helpful.

The first necessity, therefore, in regard to cattle is to prepare, not only a careful census of the available cattle wealth of the community, but at the same time to calculate scientifically the amount of land that a given number of cattle can most economically cultivate, and can furnish the population of that piece of land with those products of the cattle-wealth of the country, e.g., milk and all milk products,—which are admittedly deficient in supply in this province. In such a census we shall have to include calculations of the amount of milk, and ghee and other dairy products from cattle needed to maintain a healthful people and it must be set as the goal of our Programme of Reconstruction to see that this standard supply of cattle-products is made available within the period of the Plan to every citizen; that the standard number of cattle needed to till economically the unit holding of land is provided on that holding; and that in so far as the present cattle wealth is deficit in this regard, scientific breeding is resorted to

bring up the existing cattle wealth to the standard required.

The cattle wealth of the community is thus to be considered, not merely from the standpoint of cultivation needs of the country. It must also be looked at from the standpoint of additional material wealth that is obtainable from the available cattle supply of the community. In principle, it may even be suggested that the animal wealth of the country, particularly that which is of direct requirement in the process of agriculture, and that which helps to add materially to the general well-being of the community, may be owned by the community collectively; and only its use should be entrusted to the individual at present owning these cattle, to be worked by them under scientific rules made in this behalf by the Local Association of the Agriculturists, of which we shall speak more in detail later on. It is only when this cattle wealth becomes the property of the community collectively that the latter would be entitled to lay down specific rules for scientific stock-breeding, and for the development of all **other**

industries that arise out of an abundant cattle supply in the province.

If the community collectively owns the cattle-wealth, it will necessarily have the proprietary rights in all the young stock. Accretions to the new stock will thus automatically vest in the community with the result that, in course of time, the whole of the cattle-wealth would become property of the community.

The principle of community ownership is emphasised even in this connection, not only because that principle needs to be extended to whole agrarian wealth, but also because, without it, there is no hope of improving the wealth per unit, or productivity in general, which we are seeking as a definite objective of our Planned Programme of Reconstruction. The wealth thus brought into the ownership of the community at large must, subject to the immediate rights of possession and use allowed to individuals who today own this wealth, be managed on behalf of the community, by Local Associations of Agriculturists specially constituted as deputies for the Provincial Government in

each village, Thana, Taluq, and district within the province. This right to manage will include the right to prepare for all the lands within the jurisdiction of all Local Associations concerned, a proper programme every season for the crops to be sown, the plots selected for such sowing, the labour of man and beast devoted to the farms, the harvesting of crops, their storage and marketing, as well as the sharing of the produce. Such management would then be, in reality and in fullness, for collective service and common benefit.

These Local Associations of Agriculturists will, when once started, be entrusted with the preparation as well as the maintenance of a systematic and complete census of cattle within their jurisdiction, being brought up-to-date from time to time. They will also be the proper authority for preparing a correct scientific standard scale for cattle needed for cultivation, transport, their **by-products and upon the farm or for the agriculturists.**

While preparing such a standard scale, the Associations concerned will, of course,

have due regard, not only to the present size of the holdings, but also to the needs of co-operative cultivation with a view to make productivity larger than it is today. It must, likewise, have due regard to the introduction of mechanised tools and machinery, both in the actual process of cultivation, and for purposes of transport. In the initial years, indeed, the plan of cattle requirements will not be much affected by this last consideration of radical changes in the methods of cultivation; but they must be considered all the same, if only to give our programme that fullness and comprehensiveness which would otherwise be lacking.

Having prepared such a standard scale, and after making due allowance for the considerations mentioned above, these Local Associations of Agriculturists must distribute amongst the cultivators in each unit the available cattle supply of the community with due regard to the character of the soil, the necessities of transport, and the general requirements of the collective well-being of the community in each such unit.

By the term cattle, it may be added, we mean not merely cows and buffaloes, bulls and oxen, but also sheep and goats, pigs and horses, poultry, etc. Poultry farming is an industry by itself, and must be attended to for that reason, if not for anything else. Stock-raising in the larger sense must be carefully attended to, as much because of immediate value to each industry in cattle, in agriculture, in draught and transport, but also for the subsidiary industries that may be founded upon a plentiful cattle supply. Amongst the most important of these industries are :—

- (1) Dairying in all its branches, including preparation of ghee or butter, milk, cream, *dahi*, cheese, and other cognate products; and
- (2) Utilisation of hides of dead animals, including tanning, dressing and preparation of these hides, hair or bones for service in the proper manufacturing factories to work up these waste products into useful, serviceable articles.

Both these industries, it need hardly be added, of dairying and utilisation of the cattle products must be conducted on provincial scale. The actual work of operating these establishments may, however, if found advisable, be entrusted to the Associations mentioned above. Small-scale industries of this sort may also have their future; but, given modern competition in all the articles, produced by the help of machinery in such industries, mechanisation and large-scale production are practically inevitable. And such mechanisation as well as concentrated production are impossible, unless the industries are owned and worked as State concerns.

Scientific stock breeding, again, will require, not only a well organised veterinary service to study the diseases common amongst the cattle, safeguard their health, and increase their vitality. It would also make **a careful study of the diet to be provided for cattle, so as to make them yield larger quantities** of milk or do greater unit of work in

agriculture, etc., than they are doing today when they are underfed and die prematurely. For this purpose also the Local Associations referred to above will have, with the aid of the competent veterinary experts, to prepare a detailed programme for the cattle wealth within their jurisdiction and see to it that these plans are faithfully carried out.

Assuming that we have succeeded in preparing and putting into execution sections of the Plan mentioned above, it may be quite in order to prohibit rigorously that slaughter and destruction of cattle which may appear without any compensating advantage, so far as disabled, aged, or defective cattle are concerned. India is rich, even today, in those associations or *Pinjrapoles* in different parts of the country which are concerned with the protection and maintenance of the cattle. These institutions, however, must be regarded as national property, and must be managed under the control and regulations made from time to time by the Provincial Governments. **Their funds must belong to the community collectively, and all fresh gifts by charitably inclined people**

should come under public control, though earmarked for this purpose.

'The same principle which militates against indiscriminate slaughter and destruction of cattle must also lead to a rigorous control, if not complete prohibition, of exports of cattle, poultry, sheep, goats, horses, or pigs to foreign countries. No such export should be permitted, except under a special license from the National Agricultural Council, which may be set up as a common organisation for the whole of India. It may have on its executive Board representatives of the different provinces, selected from the Provincial Federations of Agricultural Associations to which reference has already been made. It may be added, in order to prevent any misunderstanding of this last remark, that though the purpose of the above restriction is to conserve, increase and maintain the cattle wealth of the community, it is not intended that inter-provincial department in cattle could in any way be interfered with.

The principles which have been enumerated above for the protection and preservation of the cattle wealth of the community may

also be extended to the preservation of such other animals as constitute "game" for hunters. Even the wild animals or beasts of prey have their own utility in keeping down crop-pests, or otherwise aiding in the preservation of the agricultural wealth of the country. Wild cats and dogs and other animals of the feline tribe right up to tigers and lions have a place of their own in the economy of nature. The regulations, therefore, governing the issue of licenses to hunt these beasts will have to be revised with a view more adequately to fulfil this purpose.

One of the greatest handicaps in regard to the cattle wealth of the community is the absence of any adequate provision for insurance against untimely loss, damage or destruction to cattle, failure of their water or food supply, and other such contingencies. The Provincial Federation of Agriculturists' Associations must, therefore, provide, under an Organic Land Law of the Province, for a suitable Cattle Insurance Fund, with a view to make up the loss, damage or destruction in cattle that may

arise from pests or diseases, floods or famine, and other causes. This fund will be an integral part of the general Famine Insurance Fund which may be organised, if deemed advisable, on all-India basis. The Famine Insurance Fund which is to replace the Famine Insurance Fund of the Government of India must be a much more comprehensive, co-ordinated, and nation-wide organisation. It must be made up of periodical contributions, scientifically calculated by deductions from the agricultural wealth of the community; and must be managed and operated as a Trust by a National Council of Agriculture, under an Organic Law made by common consent affecting the whole country. The objects to which the balances at any time available in the Fund could be applied; the proportions in which contributions are to be raised from the several constituent parts of India, and benefits of the Fund given; the definition of all the normal contingencies of agricultural life against which the Fund is intended to be an insurance; and the objects or directions in which its balances or surpluses may be

employed; should all be laid down, or at least indicated in principle by the general organic law, applicable to the whole of India. Even if such comprehensive national legislation is not feasible under the conditions of today,, each province may enact its own law on the subject—a comprehensive Agrarian Charter in which this important item will be duly provided for—which may be so worded as to permit of co-operation between the provinces for mutual strength and safety in such matters.

The actual day to day management must be left to the Local Associations in each province. They must use the amounts made available to them, even during normal times, in the furtherance of the basic objectives of our main Plan, e.g., (1) by bringing into cultivation new land, or developing new crops; (2) for the preservation or storage of agricultural produce, whether for food purposes or industrial purposes; and (3) for such capital aids to agriculture or agriculturists as may be of direct benefit, more or less of a productive character, to **the** agricultural wealth of the community. In

time of actual scarcity in any part of the province, the charge for the relief of such a scarcity will, of course, be the first charge upon the aggregate amount of this fund. Scarcity, whether of food, fodder or water, must be relieved in any part of the country, wherever it occurs, by drawing upon the outstanding cash balances of the Fund, secondly, by the use of the current income from the National Famine Fund, and thirdly, when absolutely necessary, by the use of its capital whenever occasion demands it. The National Famine Fund authority may even be invested with the right and power to raise money by borrowing, if necessary, to relieve distress in any part of the country. Borrowing, however, cannot be allowed for any other purpose by the Fund authority; nor should any Government, provincial or central, be allowed to borrow for its own purposes from the balance to the credit of the Fund.

(it) *Manure and Chemicals.*—The statistics in an earlier portion of this chapter show that the use of manure and artificial fertilisers, with a view to increase the

productivity from land, is very limited in this country compared to many other countries. The reason is quite simple. The people in India are too poor, and the average agricultural holding is too small, to justify intensive cultivation, where scientific manure or artificial fertilisers would be profitable. Bihar is, if anything, poorer in this respect. The re-organisation of cultivation, suggested herein, may however render the use of fertilisers much more easy than is the case today. At present, the Indian agriculturist is not unaware of good manure for raising the quality and improving the quantity of the produce from the soil. Owing to his poverty, however, as well as the smallness of his holding, he is confined only to the ordinary farmyard manure. But, even on these lines, no scientific plan is anywhere prepared; so that much of this fertiliser also is allowed to be wasted. This affects adversely not only the potential agricultural wealth but also the general health of the community.

What is needed is; therefore, a proper conservancy plan for the scientific collection

and the utilization of the available manure within the province itself. And, in proportion as land begins to be cultivated more and more on a collective or co-operative basis, synthetic manures or artificial fertilisers may be applied for the enrichment of the soil, and for the improvement in quality and increase in the quantity of the crops raised.

The Provincial Federation of the Agriculturists will have, in this instance, also to prepare detailed estimates under a general plan of the ways and means by which manure and fertilisers can be supplied within its jurisdiction to the cultivated land. This is really a question of proper adjustment, rather than a matter of new additional expenditure; for when collective cultivation becomes the rule throughout the province, the mechanism for this adjustment will have to be elaborated by the Council of Agriculturists' Federation within the province.

(iii) *Tools and Implements.*—The third requisite or aid to agriculture, to be noticed **in this** connection, is in regard to the **tools and implements used** in agriculture.

Agriculture in India is an ancient occupation in constant exercise for several thousands of years. Bihar is one of the most' ancient provinces in India, where population has been settled and agriculture in operation longer perhaps than anywhere else. Its soil may seem to be exhausted; but in the periodical enrichment brought to it by mighty rivers that flow through the province and also in the care and skill of the cultivator, it has recuperative agencies which can be further developed. The agriculturist has also a long tradition of good husbandry behind him; and so also all the tools and implements used in the entire process of cultivation in land. Recent scientific observers who have seen the use of these implements used in actual cultivation, are generally agreed that, for the task before them, these tools and implements are fairly adequate. This does not mean that there is no room for improvement. But given the present economic ability of the average cultivator, any costly improvement or new design of such tools and implements may be beyond his means. But if agriculture comes

to be reorganized, as contemplated in this plan, on a collective or co-operative basis, the improvement and additions to the tools and implements deemed necessary can be easily effected. It is for the Council of Provincial Agriculturists' Federation to say where and to what extent such improvement will be needed.

The same applies to those modern tools and implements of agriculture, which are collectively termed agricultural machinery. Mechanisation of agriculture is most profitable where land is cultivated in large blocks, as in Russia and America. Machines are generally costly to buy as well as to operate and maintain. If employed on parcels of land, they would remain idle for the greater portion of the year for lack of work. It is, therefore, to be considered, while framing the plan for Agricultural Reconstruction, how far the introduction of collective or co-operative cultivation will be of help in introducing power-driven machinery in the several agricultural operations. Without pronouncing any definite opinion on **the subject** we may point out that, **given proper**

conditions machines may be very much more economical in the actual unit cost of operation as contrasted with the amount of yield raised or labour saved than human or cattle labour. But we may leave this subject to be attended to by the Provincial Council of Agriculturists' Associations, which would have greater material at its disposal for preparing a workable plan for this purpose.

So long, however, as the principle of private proprietorship in land is maintained, and so long as the average holding and the average cultivator continue to be as small as they are today, there seems little hope of introducing power-driven machinery with advantage to India. We must also remember that power-driven machinery will replace to some extent both human and animal labour; and, unless alternative employment is provided for the displaced human labour and alternative use found for the displaced cattle, it would be inadvisable to insist upon wholesale employment of power-driven machinery as an aid to agriculture, however economical in money-costs they may be shown to be.

(iv) *Water-supply*.—The last aid to agriculture that we may notice in this connection is in regard to the adequacy of water-supply. Agriculture in India has often been spoken of as a gamble in rain, mainly because its entire success is dependant upon the adequacy of the periodical rainfall. But the periodical rainfall often varies, both in quantity and discharge, so much that some kind of substitute or supplement for the natural water-supply from the rains has been found necessary from time immemorial.

This substitute or supplementary water-supply has been common in India from the earliest times in the shape of the ordinary well, the village tank or still larger irrigation works from the rivers. The modern irrigation works may be more imposing in their size, and in the extent of the area they irrigate, but the ancient irrigation channels called *paynes* and wells which survive even today, and the village tank which has its own local use in each village, continue to function as rivals to canal irrigation.

The extent of irrigation in the province has been shown in an earlier portion of this

chapter. It is for the provincial Agricultural Associations to prepare a detailed plan for additional wells, or tanks, or larger irrigation works, that may be necessary for the province effectively to guard against the vagaries of rain water. It is well-known that large quantities of river water are annually wasted in the periodic floods which ravage the province. Some means will, no doubt, be found, if sufficient consideration is given to it, to prevent this unrelieved wastage -of our great natural endowment in this respect. Whether we depend on wells or tanks or canals for ensuring the water-supply of an agricultural community, we must no doubt invest some capital. But, whereas wells and tanks may be constructed as co-operative enterprise by each agricultural unit for its own benefit, and which may therefore be able to provide the necessary capital out of their own resources as well as the labour the large irrigation works* on a province-wide scale must needs be

* The Bihar Electrification Scheme, when completed will enable a large number of tube wells to be operated. by electricity and thus supply irrigation to considerable areas of land in South Bihar and Chota Nagpur.

constructed at provincial expense, if and when required.

Before finally closing this subject, it may be added that the question of water-supply is not confined only to the provision of water for purposes of cultivation. Adequate water-supply for human consumption is no less the prime need of the whole country; and this province is no exception to that rule. No real advance in Reconstruction, or the general welfare of the agricultural community, is possible without proper attention being paid to adequate and suitable drinking water-supply for human beings as well as cattle. But this is also a matter, which, after emphasising it in principle here, we would leave to the provincial Government and the Agriculturists' Local Associations to attend to in the near future.

Reviewing the whole question of aids to agriculture, we find that; whereas at present these aids are, speaking generally, not sufficiently available both in respect of Quantity and quality; and whereas the naking up of the deftcit will involve considerable effort, it is not so much a matter of

definite additional capital as a question of devising a proper mechanism or method of adjustment, which would supply these needs without straining in any way the capital reserves of the province. When once supplied in the required quantity, they would automatically help to increase the productivity, and so improve the general standard of welfare in the community.

(d) Seed.

The seed needs of agriculture are no less important than the other handicaps discussed already. This is mainly due to the poverty of the agriculturists. His attention to good seed for sowing has necessarily become perfunctory, has led to a mixing and deterioration in seed which further affects the yield of crop per unit as well as in the aggregate. The re-organization in agriculture contemplated above, and cultivation on a co-operative if not collectivist basis, would no doubt go a long way to improve the seed, and maintain a better quality of all kinds of crops thereby. Scientific attention to seed has been demonstrated in many instances, particularly in

regard to sugarcane, as resulting in excellent results in the yield as well as in the quality of the crop concerned. We need, therefore, hardly emphasise any more the importance of seed, if we desire to remove the handicap resulting from reckless mixing and inattention to the quality of the seed.

(e) Inadequate Facilities for Storage, Grading, Transport and Marketing.

Storage.—Another group of handicaps upon Indian agriculturists consists in the very rudimentary arrangements for storing, grading, transport, and marketing of the agricultural produce.

Once again, the main explanation of the absence of adequate provision in all these regards is to be found in the poverty of the average cultivator, and his consequent inability to lay by anything which could at all require to be stored. For, storage necessarily implies some surplus over current requirements; and as the average produce raised in this province is, as already noticed, hardly equal to food requirements, **no question really arises of storage under present conditions.**

Storage, again, is a sort of elementary insurance against the common risk of agriculture in India. Though once practised in abundance it has in recent time had to be abandoned, simply because the introduction of money economy and cash payment in all transactions of life during the British regime has led progressively to the cultivator being obliged to realise the money value of his harvest. He has no option in this matter, because of the many cash demands upon him. He must, therefore, dump his produce, so to say, upon the market such as is available to him, regardless of any consideration of the price obtainable. And he must part with all his produce, almost immediately it is raised, simply because otherwise he would not be able to make his payments on account of rent or land revenue, interest on capital borrowed, and the ordinary needs of his family and himself. Under these circumstances no surplus is left whether in cash or kind; and so the possibility of storage becomes increasingly negligible for the average tenant-cultivator of this province. As for the larger Zamindars who take in the way of rent,

quite an appreciable proportion of agriculturists' produce they, too, are unwilling to save and store in kind. They have acquired such expensive habits—generally speaking—that the cash rents they obtain from their clients hardly suffice for their ordinary expenses. Out of a total valuation of the Bihar agriculturists' produce valued at 64 crores, roughly, at present prices, the Zamindars rental including cess aggregate 12 or 13 crores per annum. The Zamindars have no organization for keeping stored up any appreciable quantity of grain or fodder to act as insurance against any failure of rain. In part the growing practice of employing any savings as investment in public or industrial securities may also be held responsible for the lack of systematic and adequate storage of grain and fodder to act in times of need as insurance against such contingencies.

The reconstruction of agriculture contemplated in this plan would, by bringing about cultivation on a large scale basis in a co-operative association of cultivators within a given region, facilitate storage of crops, not

only because it would aid in raising **the** aggregate produce, but also because it would remould completely the existing system of money economy. Even if money economy **is** not wholly scrapped, and even if dealings **in** kind are not substituted for completely, payments under the new system may be so effected, at such time and in such manner, that storage of crops as an insurance against a possible failure in another season, or for realising better price, may be much more easily achieved. The capital outlay necessary for building these elevators or storage dumps would be insignificant in proportion to the benefit received from such institutions. Lastly a greater control of price-movements, and a better regulation of prices in general, which is an integral portion of the **whole plan envisaged** in these **pages will still** further promote facilities for storage, and so assure the agricultural community **against one of the most common curses of agricultural life in India.**

Grading.—As regards the **proper grading of the produce into several qualities each carrying a different price,** the present system

in India seems to differentiate crops more according to the regions in which they are grown, than on any other basis. This effects automatically a somewhat elementary grading, which may be cheap, but is not very effective especially if dealings on large scale become the order of the day. Owing to the absence of proper grading available to the average cultivator, he has naturally to take what price he can get for his produce when he wants to realise it irrespective of its quality, if storage facilities are provided as indicated above, grading would have to be more fully and scientifically carried out even for crops of the same region than is conceivable today. We must, accordingly, leave this as among the most considerable function of the Local Council of Agriculturists Associations to provide these cognate facilities.

Transport.—Transport of agricultural commodities is even to-day a serious problem, both in regard to the means of transport available, their adequacy and cheapness, as also in regard to the agriculturists' need for having some transport at all for his produce. How much, of the produce raised in any

given region should be consumed on the spot, and how much should be exchanged to obtain the other requirements of life, is a matter for the Local Association of Agriculturists to determine for the region within the jurisdiction of each of them, provided that while* deciding this matter each Council would have to bear in mind the basic requirements of the main plan of provincial reconstruction in that behalf. Transportation is only an accessory and a facility for the better-organisation of agriculture as well as industry. It is from that standpoint, and with special reference to the quantities to be transported, that we shall consider this-question.

Means of transport are today divided between the Central and Provincial Governments in India, so that while railways are within the jurisdiction of the Central Government, the roads and rivers are within the jurisdiction of the Provincial Governments. All roads and rivers, however, may not be wholly within one single province; and interprovincial means *qf* transport and communication have an aspect in which the

Central Government has jurisdiction. Rate-making, moreover, on the rail-roads is within the authority of the Central Government, even though the actual task of prescribing specific rates has been entrusted by the new constitution to a special Railway Authority. This would set the standard for freight rates, and the charges for other means of transport, including roads and rivers. The Provincial Governments may even be restrained by the Central Government, if the former so manipulate their local freight rates on internal roads and rivers as to set up a severe competition with the centrally operated railways. Very considerable capital has been invested in the railways by the Government of India; and so the Central Government are naturally anxious to see that no agency is developed anywhere in the country which would jeopardise the profitability of the railway enterprise in their hands. But competition even today on the roads has, no doubt, become a formidable factor seriously affecting the returns from the railways; and so the question of evolving a co-ordinated freight

policy on all forms of transport throughout the country is already occupying the attention of the authorities concerned. In such a policy there is danger that the interest of weaker provinces, or those not fully developed in the matter of internal communications may suffer; and so it will be necessary to lay down not only the degree and kind of new transport facilities needed in the province, but also the rates of freight which the traffic of the province could bear.

There is a great possibility for new road development in this province; and we must prepare a detailed programme of such roads as may be considered necessary to build for affording all possible facility in the movement of crops, indicating the capital cost of the road and the annual charge for their maintenance. Government will then have to scrutinise these proposals and, to the extent they approve, must provide the ways and means of carrying them into effect. Water transport is, in this province, an additional facility which needs to be developed. The lie of the land is such and so many rivers flow through the province, that the construction of new road and the development of

river-communication right down to the ocean is not at all an impracticable proposition. Generally speaking, water transport is very much cheaper than road transport, since the capital cost for building a permanent roadway is non-existent. It may be more easy and profitable to develop water transport in Bihar. It is for the Council of Local Agriculturists' Associations to prepare a comprehensive plan for new roads and for the development of river transport, so as to provide every corner of the province with a motorable road, or, alternatively with efficient and adequate water communication to central places, from which the movement of crops to any part of the country or of the world may be cheaply and easily achieved.

If water transport is adequately developed, and the principal river³ of the province fully utilised for this purpose by such devices as tugs, or strong motor-boats hauling a fleet of flat-bottomed barges, it would not be impossible to make Patna and some other important river-side cities flourishing ports as they used to be in the past. To make Patna, for example, for

all-the-year-round port, very little additional outlay will be necessary to provide quayside wharfs and other facilities for the shipping and landing of goods, jetties and other such accessories of a port. Greater capital outlay may be necessary, no doubt, for completing and maintaining an adequate fleet of river-boats and barges which may go right down to the open sea, if and when required. The river itself may have, by central legislation, to be inter-provincialised; so that all the riverain provinces may be entitled equally to use the stream down to its mouth. But these are not impossible conditions nor absurd dreams. Given only the will to achieve them, it is a simple matter of time to develop these facilities and get them into a working order.

Marketing.—The last of this group of handicaps consists in inadequate marketing; organization for the disposal of the agricultural produce. The handicap has begun to be noticed, and efforts have already been made to promote adequate marketing, facilities for the agriculturists. Marketing: consists not merely in finding proper

customers, or developing the demand for the produce of the province but also in assuring the customer the quality he needs and obtaining for the producer the price deemed remunerative for each such article exchanged. If ever agriculture is to be reorganized fully and properly on the basis indicated in this plan, improved marketing facilities would be an integral part of the plan. As such it would have to be provided side by side.

The complaint that the producer does not obtain a reasonable share of the price paid by the consumer is well known. The handicaps that the agriculturist at present suffers from in marketing his produce are many. Weights and measures, for example, which form the basis of purchase and sale of agricultural produce vary from, place to place, so much so that four or five systems of weights are not uncommon in every district of the province. The enforcement of one standard weight throughout the country is an essential preliminary to development of marketing. The producer is often deceived by 'the secret understanding

between *arathias* and buyers, being unable to obtain correct information on prices. From his produce or due price various deductions are made which are known as 'Market Charges or trade allowance. It is desirable therefore that measures should be taken for the better control of markets and for the improvement of marketing facilities. It is urgently necessary to undertake legislation the main objects of which will be eventually to (1) introduce a system of standard weights and measures, (2) regulate the scale of market charges with a view to achieving some measure of uniformity and a reduction in them, (3) assist in the collection and dissemination of reliable market prices to growers, (4) improve the present system of commission selling, e.g., by requiring commission agents who operate for both buyers and sellers to take out a double license and to provide both buyers and sellers with proper statement of accounts, (5) improve marketing conditions generally by providing better shelter, watering and sanitary arrangements for men and cattle and for the elimination of

malpractices, (6) improve the position of producers, traders and other functionaries in the markets by eliminating casually irresponsible interlopers who are not only a menace to the producers but endanger the livelihood of the persons operating in the markets. Registration of markets and licensing of dealers and merchants are a necessity for the above purposes.

The last point that should be considered in this connection is in regard to the provision of the vehicles needed for working such transport facilities. The institution of an automobile-making plant in this country is an urgent national necessity. And so we shall leave this point to be determined, and the plan in that behalf to be completed, on a national basis by the National Council of Agriculturists Associations so that each province should have its due complement of transport facilities needed for its programme of reconstruction. The reaction of these new facilities on the existing traditional means, like the country cart, is no doubt a point to be considered by the Provincial Council of

such associations; but the general remark may be ventured in this place that properly co-ordinated in all its parts, the basic plan of Reconstruction must needs see to it that the reaction just mentioned is not in any way or at least disproportionately harmful.

(f) *Financing Crop Movements.*

The next handicap which affects the productivity and its full realisation in money consists in the lack of adequate finance in the amount, and at the time, needed. We have already considered partially the problem of agricultural finance in an earlier section of this chapter when discussing the question of liquidating the agrarian indebtedness. At the present time financing of agricultural produce is being done by individual village shopkeepers, who are not infrequently also money-lenders. They have, therefore, doubly an interest against the producer who seeks to market his crops through such agency dealing with each small cultivator for his bit of produce. Necessarily under these conditions, the agriculturist receives not even the fair market-price simply because he has not the means to hold over his crops

until better pricing could be available. Even the time taken in transit from the producer to the consumer is a factor militating against the agriculturist, who has no financial reserve to hold on until the ultimate purchaser of his produce is in a position to pay.

All these handicaps would, however, be removed, or at least considerably mitigated if the Council of Local Agriculturists' Association sees to it that all produce within its area or jurisdiction is brought in its charge, that in some convenient central point in its jurisdiction it erects and maintains a common store for facilitating marketing of the produce there collected; that the Council collectively deals with this produce both **for** use within the area itself **and for such** exchange of other commodities as may be deemed necessary to finance on the security of this **produce from the local branch of the provincial Bank already mentioned.**

Adequacy of finance may also affect **the entire process of cultivation.** As already noted, the average cultivator is not in a **position to obtain even the seed needed for**

sowing when the season commences without recourse to the money-lender. Much less is he able to have sufficient surplus of his own resources to maintain his family during the time it takes from the seed sown to ripen. There are still other demands upon him in the shape of rent, interest charges, wages of labourers, and other services, e.g., education of his children which also would make a draft upon his very slender resources. **For** all these reasons some accommodation is always needed, and Provincial Land Bank through licensed village bankers may be expected to provide the necessary funds.

(g) *Reserve or Insurance.*

The last handicap we have to consider in this place concerns the lack of a reserve **or** insurance against the common contingencies of agricultural life. We have already spoken of the need to provide some kind of storage facilities for crops **so** as to act as a kind of insurance against the failure of crops in **any** year. We have also, in another section of **this** chapter, **dealt with the question of the Famine Insurance Fund, which would provide insurance on a contributory basis for all the**

normal risks of agricultural life to which the wealth of the cultivator in land or crops or cattle is exposed. If both these facilities are provided through an agency of the Council of Local Agriculturists' Association, the present handicaps materially affecting the agriculturists and his produce will be considerably mitigated; and the productivity from land, both in the aggregate and per unit will increase substantially in consequence.

(h) Establishment of subsidiary Industries.

With agriculture re-organized in the manner suggested above, with crops diversified according to the soil and the capacity of the province, and with the distribution of population between agriculture and industry being gradually reconditioned, the establishment of subsidiary industries in this connection becomes an integral as well as an important consideration.

As to what industries are most suitable for such subsidiary development, it is a question for the Council of Local Agriculturists' Association to determine for each area, as well as for the whole province.

The guiding principle that we can lay down at this place is that no part of the produce, no possibility of imparting additional utility to any produce or effort of the agriculturist should be allowed to go waste. On this basis, the authority concerned can consider the material facilities and opportunities available and make a detailed programme to develop to the utmost possible each of these. It should however be noted here that with the development of electrification of Bihar, the scope of such small and cottage industries will be considerably increased.

Generally speaking we would include in such subsidiary industries only those which are either directly dependant upon agriculture or concerned with ministering to its village development or which are capable of being worked only on a small scale suitable for the ordinary cultivator. Agriculture is an occupation which, under the best organisation, would continue to be seasonal. That is to say, it would not occupy the whole time throughout the year of the cultivator and his family.

For the off-season employment of this energy he must have some occupation to supplement his agricultural income. The selected occupation must necessarily be such as not to involve any loss of skill or capital if it is given up from time to time when the agricultural work becomes more pressing; and resumed after the pressure of work is over. It must also be connected in some way with the main occupation of the worker, i.e., agriculture. For the full benefit of such work can be obtained by the agriculturist if he can utilise the result in his main occupation in case he fails to obtain a just return for his work in this subsidiary occupation in the ordinary market.

Industries, which are all-the-year-round occupations continuously in operation, and which are worked by power driven machinery are utterly unsuitable for such small scale, off-season individual work, here considered. Even though working on any such industry may be possible without power-driven machinery, we cannot select it as a steady subsidiary occupation as it is liable to be exposed almost from the start to severe

competition. On these lines it is not difficult to compile a fairly wide list of occupations, which in one way or another would minister to the main occupation of the agriculturists, the products or results of which can be utilised by him or his Association, and the prosecution of which does not require such considerable financing, elaborate equipment or concentrated work as to interfere needlessly with his main occupation. True, even in the occupation thus open to the agriculturist as subsidiary work during off-season some degree of specialised skill, some equipment by way of tools and equipment and some assurance of raw materials as well as market, and financing would be necessary. Every agriculturist may, therefore, not be individually qualified to carry on such occupation. But there can be a suitable division of work between some agriculturists carrying on agriculture proper in its various processes, and others carrying on these incidental occupations connected with agriculture. Thus the work of the carpenter, smith, wheel-wright, tailor, oil-presser, shoe-maker, etc, may be amongst

those which are connected with agriculture, and may be carried on as subsidiary occupation on a small scale.

It is, of course, a moot point for the Local Association of Agriculturists to say how many of these occupations, which are exposed to competition from mechanised goods, can be conducted as village industries. It is also for that body to consider whether, and if so to what degree, such occupations would affect the aggregate economy of agriculture as thus reorganized. It is for the Provincial Council of these Associations to determine how far any of these occupations can be equipped with small power-driven machinery, and worked on a large scale of mass production and how many of these should be promoted on a small scale. The general principle may be reiterated that, 'wherever local conditions so warrant, and competition from machine made goods is neither immediate nor intense, occupations connected with agriculture may be carried on a small scale, to provide additional employment during off-season for, the agriculturists.

The main agricultural industries, like

different processings of food crops, dairying, horticulture, oil, essence or preserve-making and fruit canning, leather working or utilisation of by-products of dead animals are not considered in this catalogue as industries subsidiary to agriculture, though they no doubt spring out of agriculture and are intimately connected with operations incidental to it. To a large extent, they are capable of individual operation on a small scale also. Nevertheless, they are no important individual industries by themselves and can so easily occupy the full time of a fair proportion of the rural population that it would be as well to regard them as independent industries and not subsidiaries. It would be for the Council of the Local Association to say how far these industries will or should be mechanised and how far any of them should be operated on handicrafts basis for a limited market within the province. However conducted, we may repeat that these are industries which must be developed and worked for adding to the general wealth of the community, and at the same time providing additional employment

on a remunerative basis for such portion of the population as can be employed therein.

The subsidiary industries proper, as well as the independent industries, will require financing and special administration; once again, reliance must be placed on the proposed provincial Bank to obtain the necessary finance for starting and equipping the village worker in these subsidiary industries. Relatively this financing would be of inconsiderable amount and need not involve any serious strain on the bankers' resources. The financing, on the other hand, of these principal industries, viz., dairying, hide-tanning, leather-working, utilisation of other by-products of cattle, horticulture, fruit-preserve or canning, etc. would need initial as well as working capital on a considerable scale; and this may be supplied by the Bank either by under writing their shares or guaranteeing their debentures, etc.

The Bank may provide the necessary finance which would assure, on its own responsibility, the proceeds of each worker's labour and which would also guarantee that the finance thus supplied will not be

dissipated. On this basis mutual convenience would be duly preserved and the greatest handicap on the agrarian craftsman removed. The Bank, in its turn, would obtain the necessary funds from the public either by issue of a series of special industrial bonds, each series secured on a particular industry or occupation throughout the province, guaranteed by the Local Associations of Agriculturists, or from the ordinary deposits available to it. Such bonds, however, would most suitably be issued to finance the large industries operated by power-driven machinery on a large-scale. For the small scale subsidiary occupations the ordinary bank deposits would be quite suitable. The total capital requirements for the purpose may be roughly computed, for the 67,000 odd villages of Bihar, and at the rate of 3 principal occupations of this kind, needing a net financing of Rs. 100 per occupation, at Rs. 2 crores. This is an amount which a carefully conducted provincial Bank may easily raise by deposits even for Bihar.

The administration of the subsidiary industries or occupations—will be part of the Local Association's work in respect of general supervision and control, and, in particular cases, even management. The subsidiary industrial worker may work as agent on behalf of this Association or as its paid operative, guaranteed a definite return for his work without any worry about marketing the produce, obtaining raw materials, storing, and transport, etc. In a scientifically organized community the latter would probably be preferred as it assures that fullness of control and supervision as well as efficient management, without which no such enterprise can be completely successful.

An estimate of the number of such industries, their distribution throughout the province, and their aggregate financial needs will have to be prepared in advance, as already remarked, by the Provincial Council of Agriculturists' Associations. This would, thereafter form an integral part of the Provincial Plan of Reconstruction.

(i) *Better Distribution of Provincial Dividend.*

Having adopted all these measures to secure an adequate increase in the aggregate productivity of agriculture and its allied occupation, the next most important objective is to secure a better and more equitable distribution of this produce amongst the members of the agricultural community. While in the more advanced industrialised communities, the most important problem of national economy is the problem of distribution, in our case the present productivity is so low that we cannot afford to overlook this aspect of the problem. But in proportion as our efforts, at reconstruction succeed and productivity increases, the question of distributing the provincial dividend will become increasingly more important.

As already promised, our planned programme is so devised as to secure a standard minimum of nutrition and other amenities of life, which must be guaranteed as an irreducible minimum to every individual in the

community. For this guarantee to operate -satisfactorily, it **would** not suffice to pass general laws. So long as the vested interests continue there would be every reason to fear that such a guarantee would miscarry or be defeated by the silent operations of such vested interests. The general Organic Land Law must, therefore, provide that the surplus income the agriculturists now receive exclusively for themselves must, beyond certain predetermined figure calculated to furnish reasonable maintenance to every such individual, be progressively taxed, till a large portion, if not the whole, of such surplus is brought back to the public treasury. At the same time the system of inheritance should be attacked indirectly, if not directly, by heavy death duties, rising sharply both according to the amount inherited and according to the distance in relationship of the party inheriting, or receiving by way of legacy or gift, any rights in land. By the simultaneous operation of these two forces, the importance of private ownership in agricultural land will be progressively diminished.

According to the principles underlying this plan, the whole of the produce from land, from trees upon it, the increment in cattle maintained on it and all other similar produce will ultimately belong to the community collectively as represented by the Local Association in each unit or area of the agriculturists themselves. The Local Association will recognise as the first charge upon the produce, the maintenance of the workers and their dependants according to a predetermined standard of minimum living, which the plan proposes to assure to each individual within the community. Since the cultivation of land and the garnering of its crops will, under this plan, be a co-operative enterprise under the supervision of these Local Associations throughout the province, the provision for this first charge upon the aggregate produce will be relatively an easy task.

,0) *Regulation of price.*

The entire scheme of agricultural reconstruction outlined in this chapter will be frustrated altogether, if side by side with putting into execution the several sections of

the Plan, care is not taken to set up some efficient machinery for the regulation of the prices obtained for the agriculturists' produce. One of the chief curses of Indian agriculture to-day is, as already remarked, the substitution of cash economy for economy in kind. For everything from the payment of rent to that of any of the personal or community services, every obligation has to be discharged not in kind but in current coin or its legal tender substitute. But the relation between the money economy and the commodities that the agriculturist can exchange for money is subject to wide fluctuations owing to forces which the cultivator cannot understand and are entirely outside his control. When prices are high, that is to say, when the agricultural produce is valued more than money, the agriculturist has enough arrears, from the past to make up and is unable to reap the full benefit of an occasional rise in prices, even assuming that the money-lender and the shop-keeper let him do so. And when prices are low, that is to say, the agriculturists' produce is undervalued in terms of money, all the **cash**

payments upon him remain unchanged, and therefore he has to give more and more of his produce to discharge his money obligation.

The problem of price stabilization is a very difficult problem, and at present we are not in a position to solve it owing to our backwardness in banking and absence of control over the Reserve Bank; but when this scheme is put in operation and thereby our resources are enlarged, we should acquire greater confidence and strength and be, in due course, able to find a solution for this distracting problem.

CHAPTER VI.

INDUSTRIES.

Industrially India in general and this province in particular is very backward at the present moment and has to depend on other countries for the supply of her requirements in the way of manufactured goods. But she has not always been as backward as she is today. Up to the sixteenth century

* I always felt very strongly on the question of an All-India Planning of our Industries. In June 1938 I addressed a letter to all the Provincial Ministers of Industries and asked their co-operation in this matter. A perusal of that letter may be of some interest. I, therefore, give it in full as a note appended to this Chapter. The idea was materialized in the following October when Mr. S. C. Bose, the Congress President took up the matter in hand and called a meeting of the Congress Ministers of Industries at Delhi and a Planning Commission and a Planning Committee were formed under the able and inspiring Chairmanship of our Illustrious' leader Pandit Jawahar Lal Nehru which has already issued very interesting and instructive questionnaires.

For carrying out detailed investigation into the prospects of different industries and formulating concrete proposal four strong committees have recently been formed in Bihar. These are (1) Chemical Industries Committee, (2) Mechanical Industries Committee, (3) Cottage Industries Committee, and (4) Coal Industry Re-organization Committee. The report of these committees will be of very great help in planning our programme.

India was looked upon by other countries of the world as a highly industrialized country as judged by the standards of those days, when she not only supplied herself with practically everything she needed in respect of manufactured goods but had built up a large export trade in those articles with other parts of the world. From that position of pre-eminence how she has come down to the present state is the subject matter of one of the most deplorable chapters of Indian history which it is unnecessary to deal with in detail here. Briefly, it might be said that the Industrial Revolution of the West, bringing in its wake modern methods of scientific research and organizations for large scale production, distribution, finance, etc., has practically ousted our old industries run on cottage lines, and the very existence of our once famous craftsmen has become a serious problem. The country has in consequence been reduced to a mere market where more advanced countries are trying their best to push the sale of their manufactured goods, and to buy raw materials. This is a position which is economically as unsound as

derogatory to our national self-respect and would threaten our safety as a nation in any international conflict. Every effort should therefore be made to mend it as early as possible.

As far as I can see, there is no insurmountable difficulty in the way of an industrial development in this country. India is still one of the richest countries in the world in her resources of raw materials. We have plenty of coal and other mineral deposits and we have not to depend on others for our food supplies. There is an enormous amount of man power in our villages running to sheer waste for want of occupation, and, I believe, there is plenty of capital lying idle at the top of our social structure. I realize that perhaps we have not got the requisite human material at the present moment, particularly in respect of trained technical men, but these may be made available as we go along. The problem before us now is how to bring all our available resources together in an organized effort to build up our industries so that we may not have to depend on others for the supply of manufactured

goods and "may cease to be mere suppliers of raw materials.

In planning our industries, however, we must be careful not to imitate the western ideal of industrialization in its entirety involving, as it does, the upsetting of the social and economic equilibrium of the country. India is a country of large population and a very careful judgment is necessary to maintain a balance between machine and man so that as large a number of people may find occupation in manufacturing articles as is possible under the circumstances. Large-scale machinery certainly lowers the cost of production, but cheapness is not always a good economy in the long run. As I have shown above, India flourished as a land of cottage industries in the middle ages and even today there is no dearth of Indian artisans in the country. These facts should not be lost sight of in planning our industries. Our our probably lies in the development as far as possible of cottage industries in a properly organised manner. It is unthinkable however to develop every industry on **cottage industry scale.** **There are certain industries**

which cannot be taken up except on a big scale. It is necessary, therefore, to classify industries into large, medium and small or cottage industries on some sort of working basis.

The chief examples of the large or heavy type of industries are:—

Mining industries—coal, iron-ore, mica,, etc.

Metallurgical industries—iron and steel, copper, aluminium, etc.

Engineering industries—manufacture of engines, agricultural and industrial machinery, etc.

Electric industries, including generation of hydro-electricity.

Automobile and air-craft industries.

Arms, ammunitions and military stores..

Ship and boat building.

Chemical industries—heavy chemical,, synthetic fertilizers, dyes, etc.

The medium scale industries include iron, foundries and fabricated steel, cotton, jute, sugar and *paper* mills; artificial silk; cermic industries, Including cement, glass; etc.; leather industries match Manufacture

oils, paints and varnishes; manufacture of clocks, typewriters, etc.; rubber products plastic moulding, etc.

The small-scale or cottage industries include hand spinning and weaving, including carpet and durrie making; rice and flour nilling; oil crushing; basket **and rope** making; shellac manufacture; gold and silver work; toy-making, lacquer work and bangle manufacture; knitting and hosiery; leather work, etc. These may also be taken to include the industries subsidiary to agriculture and forestry, such as dairy and poultry farming, pisciculture, bee keeping, wood work, etc. Moreover, there are a number of industries in the second category such as cutlery, sheet metal work, brass and bell-metal work, tanning, fruit and vegetable canning, etc., which can also be organised **on** a small scale. In such cases manufacturing processes can be carried on in cottages while finishing and marketing and in some cases assembling of parts can be centralized **with a** view to increase efficiency.

As regards mines and minerals this province is singularly well endowed by nature

practically all the minerals of commerce are available in good quantities within the province. The following is a list of the minerals which are known to be available in Bihar:—

Apatite, Monzonite, Alum, Antimony, Arsenic, Barytes, Bismuth, Chromite, Dolomite Granite & Gneiss, Laterite, Beuxite, Limestone and Ranker, Sandstone, Rose Quartz, Quartz (pure), Felspar, Slate, Clay (common clay), Fire clay, China clay or Kaolin, Ochres, Coal, Cobalt, Copper ore, Corundum, Diamond, Gold, Graphite, Iron ore, Lead, Silver, Manganese ore, Mica, Salt, Saltpetre, Sulphate of Soda, Stealite, Tin (block), Tungsten ore (Wolframite), Asbestos, Kyanite, Talc, Platinum, Garnat, Magnetite, Zinc, Molybdenite,, Uranium, Columbite, Tantalite, Pitchblende, Beryl Aquamarine, Emeralds, Triplite, Citrinite, Amazon stone, Tourmaline, Agate, Chalcedony, Opal, Amethyst, etc.

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Some of the above are worked, while the others have not been sufficiently surveyed from an economic point of view to be worked for industrial purposes. The geological

survey carried out by the Government of India, though helpful, is not sufficient for a proper development of the mineral resources of the province as a great deal of information is lacking. It is only a general survey in which the occurrence of certain minerals has been noted, its object being more of a scientific nature. A detailed study of the minerals as a source of raw materials for industries and their quality and quantity have not been attempted in many cases. " A Geological Survey ", observes Dr. Dunn of the Department of Geological Survey of India at page 240 of his memoirs, Volume XIX, Part I, " can not be a prospecting work except in unusual cases ". While prospecting work has been and is being carried out by some large companies interested in particular industries in selected and known cases, it is only a detailed mineral survey that can bring out all the available resources for the general information of the public and prospective industrialists. It is proposed to undertake such a survey in Bihar in the immediate future.

On informations so far available, however

there is no doubt whatsoever that **both iron** and copper industries and electrical industries have a large scope in this province. If all industries connected with the mineral resources of the province can not be simultaneously developed, attention may be concentrated upon these industries and the manufacture of further articles, tools and machines from iron and steel. Copper, mica and shellac which are abundantly available in this province should form the basis of **well** developed electrical industries. The development of these industries should be taken in hand immediately.

The internal requirements of an industry may be considered under the following heads:—

1. Raw materials.
2. Finance.
3. Power.
4. Labour.
5. Management.
6. Markets.
7. Machinery.

1. *Raw materials*.—We have already noted some of the raw materials available in Bihar.

There are four main sources of raw materials for the development of industries:

(1) Agricultural products, (2) Animal products, (3) Forest products, and (4) Mineral products.

The chief industries connected with agricultural products are sugar, jute, cotton, oil-seeds, lac and subsidiary industries some of which have already been mentioned in the chapter on agriculture. Industries depending on animal products are leather, wool, bone, etc. Industries connected with forest products are wood pulp, rubber, essential oils, etc.

In Bihar some of the industries connected with agriculture are well developed, e.g. sugar and oil-seeds; but it has not yet been possible to start the manufacture of power alcohol from molasses. It is necessary to re-organise this part of the sugar industry as early as we can. When this is done it may be possible to put the Indian sugar industry

* A Committee for investigating the possibilities of manufacture of power alcohol from molasses in Bihar and the United Provinces has already submitted its report which is under the consideration of these two Governments, and it is hoped that the manufacture of power alcohol will be taken up shortly.

on a sound basis. Many other industries connected with agriculture have yet to be* developed, for instance, the manufacture of starch, celluloid, artificial silk, etc. Another natural industry of Bihar is plastic moulding of lac, producing articles of every day use such as telephone receivers, electrical switch-covers, junction boxes, etc., besides various fancy goods such as knobs and handles, pen-holders, ink-stands, etc., now made of the imported synthetic product Bakelite. The development of this industry will not only stop the import of this synthetic product but also create a home market for lac which is so essential for improving the condition of the agriculturists of Chota Nagpur.

Industries connected with animal products do not practically exist in this province although raw materials are available in abundance. Thus while Bihar produces some of the best hides in India, there is not a single tannery in this province. Both full-tanning and half-tanning industries have considerable scope for development in this province and they may be taken up either a large or a small scale. The Chinese system.

of cottage tanning and finishing in a co-operative factory seems worth a trial. The connected question of utilisation of our forest products in the tanning process is a subject for chemical research.

As regards manufacture of paper, plenty of raw materials in the shape of bamboo or grass is available, and the industry is by no means untried in this country even in its modern form. The volume of the import of foreign paper, however, demonstrates that a considerable scope for profitable expansion is still open to that industry.

Of minerals, as already noted, there is a rich abundance in this province. Although coal, iron, copper and mica constitute the chief mineral industries at present, there are others which may be worked in a small scale with small capital. In this connection Dr. Dunn's remarks with reference to 'India's Northern Ontario,' which is the description given by him to Singhbhum, is worth reproducing—

" Geology and minerology have now taken their place amongst the sciences studied in **India**, and the **Indian School of Mines** is

fulfilling an important position in the mining industry. India does now possess the men with the requisite knowledge to undertake prospecting, but it seems that the work with its hardships possesses no special attractions. The mining industry has not always been able to absorb the number of students who graduate annually, but there is plenty of scope in India for graduates to prospect and to develop their own finds. A good living can be made out of a small mineral deposit by energy and with average luck.

Large deposits are rare finds, but there are innumerable small occurrences waiting to be found and developed. So long as these are worked carefully and kept out of the hands of that type of company promoter who would merely use them as a means of raising large capital funds, the prospector should have some success. Singhbhum and the surrounding areas should be the happy hunting ground for such prospectors. Copper and Iron mining can only be undertaken by large companies, but apatite, gold, asbestos, slates, clay, kyanite, refractory quartzite, and road

sind railway balast can often be profitably worked by individual miners."

2. *Finance*.—Briefly stated the capital needs of new industries may be met in any one or more of the following ways :—

(i) By privately subscribed capital in the ordinary method of individual, partnership, or joint stock enterprise. In the first two, all the capital necessary is supplied by the individuals concerned, and in the last it is by means of share or stock, debenture, or bank credit, particularly for working capital, obtained through the credit of the company as a whole as well as its directors and managers.

Government may facilitate investment of private capital in any of these enterprises by affording special facilities or concessions for the working of the industry, e.g., guarantee of a minimum dividend or guarantee of Its output being sold at a fixed price for a number of years, or the supply of such skilled assistance or technical information as may be found necessary for the development of the industry.

Concessions of this kind would be

particularly welcome as well as necessary for the development of mineral and metallurgical industries, or the working of mines. It will, therefore, be necessary to devise a suitable code of rules and regulations, under which concessions for mineral rights, or prospecting for the same may be given to private-entrepreneurs, with due guarantee to interests of such entrepreneur, and, at the same time safeguarding ultimate rights of Government for the benefit of the public at large. The general principle must be strictly enforced in granting all such concessions that (a) the ultimate ownership of the community collectively in all such forms of natural wealth is safeguarded; (b) provision must be made from the beginning of the concession to facilitate the acquisition by the State of any such enterprise after the term of the concession has expired, and without any risk of needless exploitation of the State in respect of the purchase price or compensation to be given at the time of such acquisition; (c) that every measure of safety **and** protection of the workers, engaged in such industries is duly provided in every labour

contract for work in such places; (d) lastly that during the currency of the concession, the capitalist's claim for dividend should be restricted to a prescribed maximum, any surplus over that being taken over by Government either in full or in part.

(it) The second method of finding capital may be by Government directly borrowing for purposes of investment in industries found to be of general public utility, or in which it is possible to have a provincial monopoly or in which it is impossible to attract capital by ordinary methods of private enterprise. As a matter of principle all Public Utility industries, e.g., mining, power supply, transport services, and accessories of transport, etc., should be conducted as collective enterprises. They must be owned and managed by Government directly, or by somebody specially delegated under the authority of Government to do so.

Industries, on the other hand, in which there is reasonable prospect of establishing more or less a complete provincial monopoly should also be managed as Government concerns, **owned and operated for the benefit**

of the public, with a view to secure without undue hardship to the consumer as much portion of the profit as the monopoly is capable of **yielding**.

Finally, the industries in which it is, for one reason or other, impossible to attract private capital, and which are nevertheless not industries connected with public utilities nor monopoly, it may be necessary, in the general interest of public economy of the province, to start and work them as public enterprise in order to round up the provincial economy. For this purpose also Government will themselves have to finance these industries as regards equipment and working capital.

The Government should raise such capital by borrowing in the open market, or inviting subscriptions to bonds secured on specific industries operated by the Government. These bonds should be guaranteed a minimum of interest, with a promise of a limited amount of additional **return in proportion** as the industries **in question become commercially more and more successful**. **If direct borrowing by Government does not succeed in**

furnishing the required amount of capital, recourse may be had to the Central Credit Institution of the country, namely, the Reserve Bank of India. These bonds should have a currency of not more than 20 years; and the interest thereupon may be made payable every 6 months from a given date. To popularise such investment it will be as well to make these coupons payable to bearer, even though the bond itself or the capital sum mentioned therein may be payable only to the registered owner. These bonds may also be declared to be negotiable instruments in order to facilitate their liquidity and thereby add to their attractiveness to encourage investment of all sums which have been saved by the public at large.

(iii) A third method of financing new industries would partake of all these but yet would be sufficiently distinct as to be mentioned by itself. It is the device of a Chartered Corporation specially empowered by the charter issued by the Government of **the province to establish and work a particular industry, whether as a monopoly in the province or on a competitive basis with**

regulated field of exclusive operation. Such a Chartered Corporation may be subject to Government supervision, control and audit as laid down by the charter itself. The terms and conditions of the shares and stocks issued, and the interest payable by way of dividend to the share-holders or proprietors of such a Chartered Corporation, may also be subject to restrictions according to the terms of the charter, or any other agreement mentioned in the charter that may have been made between the Government of the province and the directors of the Chartered Corporation. Finally, there may even be limitations on the right of alienation or transfer of the shares or stock in such a Chartered Corporation. Perhaps this device of a Chartered Statutory Corporation may be utilised for the entire problem of Provincial Reconstruction and Development.' All the problems and projects, reviewed and mentioned in these pages, may be entrusted to a statutory body specially created by a law **on the subject, the details of administration being regulated by a charter granted under the law.** The constitution of this body may

be prescribed by the law, as also its general functions and activities. Power may be given to this body under the charter to manage its own affairs, subject to the law; to start industries; reshape agriculture; regulate trade; reorganize marketing and transport; resuscitate banking, relieve indebtedness, and restore credit; employ labour; and generally help in the process of development. Having appointed a suitable Board for this body Government should refrain absolutely from any interference whatsoever in the details of internal management. Then only will there be hope of success.

What precisely would be the amount of the total capital needed in the first five years of the Plan for starting new industrial ventures, it is impossible to estimate at the present moment. All that we can say with any degree of certainty is that there is a very limited supply of investable capital in this province which is one of the poorest in the country; and its average citizen is practically unable to make any savings. On the other hand, there are a few rich Zamindars who may be presumed to have, in normal times

considerable surplus of income over expenditure, which may form the nucleus for investable capital. Means must, therefore, be devised to attract this capital so that it may be invested in the industrial propositions approved by Government, and which have a definite future as outlined above. The need for industrial capital in Bihar, though impossible to forecast at the moment, may not exceed 30 crores, even if all the ventures which now seem to be promising were to be taken in hand.* The average dividend from all these industries, if started carefully and worked economically, would not be less than 6 or 7 per cent per annum, after proper provisions have been made for depreciation reserve against ordinary contingencies, writing off of bad debts, etc. With such prospects of profit, it is not too much, to hope that the necessary capital would be forthcoming.

* As some of the industries which can be built up in Bihar are key industries from the all-India standpoint, the amount necessary for financing such industries will have to be raised *on the joint security of the pooled resource of the province and States* participating in the scheme for planned industrialization.

3. *Power.*—As regards power supply to modern mechanised industries, there are at least three sources of power possible to be exploited in this province for purposes of industrial use. Coal is of course now the chief source of power. It is however reported that the reserve of coking coal in Bengal and Bihar fields is rather limited and may not last for more than 62 years according to the Report of the Coal Mining Commission. Industrial development will undoubtedly increase the consumption of coal. It is therefore essentially necessary to enforce economic use of coal and prevent the waste that takes place at present. Most up-to-date machinery and methods should be used for the extraction of coal, for the manufacture of coke and for the preparation and utilisation of coal bye-products. It is well known that in the manufacture of coke, coal can yield a number of bye-products, which themselves, in their turn, provide raw materials for other industries.

To what extent the Bihar coal would be suitable for all these purposes, it is impossible to say until a careful survey has been

made of the industrial possibilities of the province.

Next after coal, as a source of power, we may mention the preparation of power alcohol from molasses, and from such forest substances such as *mahua*, etc., which are today going waste, but which if carefully cultivated can be utilised for this purpose. In regard to power alcohol from molasses, investigations are already afoot in more than one province in this direction. It is not beyond the range of probability that a flourishing industry may be established in India very soon in this respect. Bihar is rich in sugar production plants, as well as the cultivation of sugarcane. Hence the possibilities of making power alcohol from these sources is no less promising in this province than in any other part of the country.

Another source of cheap and efficient power-supply may be found in hydro-electric energy or even electricity produced from coal. Bihar has considerable resources in coal, as already mentioned; and its possibilities of producing hydro-electric energy are

being investigated. The upper reaches of the rivers that flow through the province, especially those coming from the foot-hills of the Himalayas, provide sites for the establishment of hydro-electricity generating stations; and if so, the problem of ensuring a permanent supply of cheap power will be considerably solved.

4. *Labour*.—Industrial labour is, no doubt, plentiful in the province itself. In as much, however, as some familiarity with the machinery would be necessary even in these days, this available labour supply may not be quite as efficient and consequently as economical as could be desired. Industrial education of a certain degree must therefore be provided for the most elementary success of these ventures, so as to familiarise the worker with the basic principles of his task.

The industrial worker, moreover, must learn the utility of his trade or craft organisation, and of concerted action, both for the purpose of his own discipline as well as the effective bargaining power which it imparts to the worker in the event of a conflict of interest between the worker and the

employer, whether it be the State, Chartered Corporation or individual.

Even if one of the consequences of such a close, efficient and active workers' organization is the development of class consciousness, it should not be regarded as a sufficiently offsetting factor to discourage the formation of such an organization. Side by side with a comprehensive plan for industrial development, it is necessary to enact suitable labour legislation with a view to protect every interest of the worker, and to provide adequate social safeguards in the shape of insurance against unemployment, accidents or disabilities caused by the ordinary risks of factory life, special protection and benefits to women workers, provision for old age, etc. There is already a certain amount of labour legislation, passed either by the Central or the Provincial Governments, but it is necessary to revise this legislation, in so far as it is within the sphere of provincial legislature, to bring it in line with the new spirit.

5. *Management.*—It is needless to emphasise the importance of scientific

management of business concerns Bihar is rather backward in the supply of able managers and captains of industries at the present moment but there is no reason to suppose that there will be any serious want of able managers and technical experts in India. Considering the existence of a large number of trained engineers, chemists, metallurgists and other specialists, it is reasonable to hope that with the progress of industrialization and the acquisition of further industrial experience, India **will** possess a sufficiency of efficient managers to operate her industries, specially when technical and commercial education has been given a place of prominence in the curricula of the Indian Universities.

This subject of industrial and commercial education will undoubtedly present difficulties but they will have to be surmounted. How far the State can go in solving **the** problem and what part the industries **will** have to tackle themselves are matters **for** careful consideration. I do not think that the provincial Governments will ever be in a position to undertake 'the responsibility **of**

training people for all the different industries. The iron industry, for example, requires men with a sort of education and training different from those required by the sugar industry. Pottery or glass-works will require men trained in a way different from either and so on. It is doubtful if it will ever be within the financial capacity of the provincial Governments or of the Government of India to undertake to train people for each class of industry, and it will be necessary for the different industries to undertake to train, in certain branches and stages at least, the men that they require. What type of education and training and up to what stage or stages the industries themselves should take it up, are difficult problems requiring careful consideration.

6. *Market*.—India, by virtue of its size and population, possesses a large home market. It has also access to some of the foreign markets; so that the country may be said to have sufficient outlets for her industrial products for years to come.

The mere existence of markets, however, is not enough. Goods produced must find a

ready sale and reach the consumer, and this is not possible as long as the lack of scientific marketing, which characterises, some of the Indian industries, continues. Practically every large manufacturing firm in Europe, America and Japan has organised its sales on scientific lines. In England, a committee was appointed in 1932 to investigate the question of marketing and indicate lines along which specialised education in selling should be introduced, and since then the British industrialist has made so much progress in the development of scientific selling that today he can claim to be second to none in the field.

Almost all the major industrial countries of the world have realised the value of advertisement and publicity in extending the sale of their goods both at home and abroad. Not only has each important manufacturing-concern set up a special department, with an army of salesmen to tour the different markets but it has also instituted market research, the objects of which is to study continuously the trend of consumers' preferences and prejudices and the possibility of exploring:

new markets or increasing sales in established markets, and to work out methods for the expansion of business in general. It seems that India, too, cannot postpone any longer the adoption of scientific marketing, and should take early steps to set up an advisory committee on the same lines as in Great Britain with the object of working out a scheme of specialised training in the art of salesmanship and marketing so that the present deficiency in this field may be remedied before long.

During the initial period some of the industries may require a certain amount of fostering care from the Government. This may be in the form of (*i*) protection against outside competition by means of heavy customs duties, (*ii*) in the shape of subsidies or bounties paid to the home manufacturer, or (*iii*) some guaranteed purchase for the Government's own use of the articles made by local enterprise at a price calculated to be remunerative to the local producer.

7. *Machinery*.—India at present has to depend mostly on foreign countries for her requirements of heavy machinery. It is

essential that this industry should be started in India as early as possible, if industrialization is to be a reality and not a mere name. The most suitable province in which the manufacture of heavy machinery could be undertaken is apparently Bihar, which has an abundant supply of iron, steel and coal, which are the chief raw materials required for this industry. It has been estimated that about Rs. 10 crores worth of iron and steel are produced annually at the Tata Iron and Steel Works at Jamshedpur, which are the largest in the British Empire, and about Rs. 5 crores worth of coal is extracted each year from the coal mines of Bihar. Bihar provides therefore the most suitable site for the establishment of a National Workshop to manufacture machine tools and machinery, automobile parts, locomotives and engines of all kinds. There can be no doubt that such a National Workshop is a great necessity for the industrial growth of our country.

In addition to ordinary heavy machinery, electrical machinery has also to be imported

at present, costing the country about Rs. 2.5 crores each year. The manufacture of this machinery could also be undertaken with profit in the province of Bihar. The chief raw materials for this industry are iron and steel, copper, mica and shellac of all of which there is a rich supply in the province.

Besides the above, cheap and efficient transport facilities, carefully co-ordinated, are one of the major conditions of industrial development. We have already dealt with this matter from the point of view of this province in connection with the marketing of agricultural produce. In India, transport facilities lack proper co-ordination and are inadequate to the needs of the country. What is required is a Central Board of Communications with a substructure of Provincial Transport Boards, to study the transport requirements of the country, draw up a programme of future transport development on a carefully co-ordinated basis, and devise ways and means of financing it. Road mileage in India should be increased, difficulties of inter-provincial

transport removed and the automobile industry should be started so that India may have her own supply of motor vehicles.

As regards railways, it appears desirable that the Railway Federal Authority created under the Government of India Act, 1935, should be brought under the control of the Federal Legislature, and freight policy determined with an eye to the industrial needs of the country in particular. Facilities for training in mechanical, electrical, railway and marine engineering should be provided on an adequate scale in India, and the manufacture of machinery and materials required for Indian railways taken up in workshops built in India, so that the country may not have to depend on foreign countries for her railway requirements.

As regards shipping, steps should be taken to reserve at least a portion of India's coastal trade for its own nationals; and to train captains and marine engineers. An all-India Shipping Board should be set up to evolve a scheme for the future development of indigenous shipping and protection

given to this industry against foreign vested interests.

Also the Aviation Department of the Government of India should by suitable means popularise air transport, provide facilities for training and research in aircraft, and construct suitable landing grounds for aeroplanes in all important centres.

From the foregoing examination of internal requirements it will appear that there is no insuperable difficulty in the way of a thorough and systematic re-organisation of our industries. It is therefore desirable that certain industries should be started as early as we can to safeguard our national interests. Some of these industries are the manufacture of—

- (1) Heavy machinery, including automobiles and aeroplanes.
- (2) Heavy chemicals and fertilizers.
- (3) Power alcohol.
- (4) Rubber.
- (5) Aluminium.
- (6) Explosives, arms and ammunitions.
- (7) Electrical accessories and articles.

- (8) Dyes, paints and varnishes.
- (9) Railway accessories.
- (10) Pottery, etc.'

8. *Cottage Industries*.—As regards the small-scale cottage industries, the number of handicrafts, even now available to the ordinary village artisan, is as considerable as it was a hundred years ago in spite of the advent of power-driven machinery. Rather, it is expected that with the fructification of the scheme of electrification of Bihar, cheap electricity will be available in the villages and it will be possible to organise small industries in the villages for the manufacture of articles by electrically operated small machines. Cottage industries, however, cannot properly develop if they have to compete against big factories for the production of the same kind and quality of things just as big industries in India cannot exist in the face of foreign competition. If protection has been found necessary to foster the growth of big industries like iron, textile, sugar, etc., the same protection is necessary for cottage industries **not** only against foreign competition but

against internal competition from big factories. Modern oil-crushing factories and rice mills, for example, have all but killed the age-old cottage industries of oil-crushing and rice-milling. The manufacture of agricultural tools and implements like *kodalis*, crow-bars, picks, hammers, etc., by foreign and Indian firms has forced the blacksmiths to give up their profession and to fall back on the land. If this is classed as a small industry and protected against factory competition and all internal demand including that from railway, the Public Works Department and other Government departments, is met from this source, this alone may find employment for thousands of people. Of course the products will have to be standardized and improved methods and machinery will have to be used, but that should not prove 311 insurmountable difficulty. Similarly dairy products, fruit-canning, toy-making, umbrella-making, etc., and even certain kinds of textile products may be classed as a cottage industry and protected against factory competition, at least in the initial 'stages of development,

It has, however, to be considered in what form this protection may be given. In the scheme of socialised economy envisaged in the chapter on agricultural reconstruction, a considerable fraction of the population will be set free from the pursuit of agriculture as a result of economy in and proper distribution of labour for cultivation. Work must be found for these people, and the development of cottage industries and of localised small industries offers the only means of absorbing them. Of the innumerable industries that may be taken up in a cottage or localised small scale the following are some of the important groups :—

(1) Textile manufacture of spinning and weaving of cotton, silk, wool and jute fabrics.

(2) Food-stuff industries like oil-crushing, rice-milling, atta-grinding, etc.

(3) Leather industries, such as tanning, shoe-making, art leather work, etc.

(4) Wood work, such as cabinet making, carving, inlay work, toy-making, cane and **bamboo work**, basketry, etc.

(5) Metal work, i.e., blacksmithy, sheet-

metal work, cutlery, brass and bell-metal work, iron casting, machine work, agricultural tools and implements, *etc.*

(6) Ceramic industries or manufacture of glazed pottery, chinaware, stoneware, glass bangles, beads, bottles, *etc.*

(7) Chemical industries or making of soaps, hair oils, toilet articles, fruit-syrups, pharmaceuticals, manufacture of bark dyes, *etc.*

I may repeat that the development of these industries depends very largely on three factors, viz., (1) the training of men to take up these industries, (2) a protected home market for their products, and (3) an efficient marketing organization with strong financial backing for the sale of these products.

It is necessary to organise demonstration parties in different districts, for the training of both the adult and young artisans in improved methods of work and for helping them with technical advice and assistance **in executing orders placed with them by the different marketing organizations to be started for this purpose.** There should be

supervisors of these demonstration parties who should be responsible for the development of different cottage industries carried on in their respective districts and each of them will be given the help of 6 or 7 trained master-artisans who will move about in different villages to render technical assistance to the artisans.

Protection to these industries may be given in several ways. One of the ways is to put an excise duty or sales tax on the corresponding products of factories and an equivalent amount of customs duty on imports from foreign countries. The handloom industry, for example, will begin to flourish if certain kinds of piece goods, say 20's counts and below, are allotted to it under protection against competition from mills, both Indian and, foreign, by the imposition of suitable countervailing duties. Oil-crushing, *at* to-grinding, rice-milling, etc., may also be similarly protected by the imposition of a suitable sales tax on oils, *atta* or rice produced by factories. Unless cottage industries are effectively protected and proper organizations are set

up to market their products, there is little hope of effectively reviving and maintaining these industries.

The advantage of such an all-round industrial growth on a modern scale need hardly be emphasised at this time of the day. The mere employment of labour, which it would be possible to find in these ventures, would suffice to constitute every justification necessary for the development of these industries. As to how much labour these industries would employ, if all those which seem promising are started,—say within the next five years—it is difficult to estimate. But assuming that not more than a dozen industries of first class possibilities, working on a large scale with modern machinery and equipment and each employing on an average 5 to 7 thousand workmen, were started, they would aggregate a total labour strength of very nearly 75,000 to 100,000 workmen. This is apart from such labour as may be employed in the production of the raw materials needed for such industries, which, again, may mean an equal number. Counting their families and dependants

this might mean employment or livelihood for over half a million people all told in such industries, without including supervisors, managers, directors, salesmen, brokers, and other intermediaries always connected with such industries.

On this basis, we may well assume that, apart from all other advantages, the mere possibility of finding an alternative employment for 100,000 people or more, and livelihood for perhaps half a million, ought to decide all waverers immediately in favour of this proposition.

As we have said already, there are other advantages of the establishment of such industries in the province. They help to develop the resources which may be now lying idle and unexplored. They serve to bring out the daring and enterprising character of the people, make them familiar with new conditions of life, with new processes, methods and tools of work, and give them altogether a wider vision of the world around them than is possible to acquire by the prosecution of the ordinary processes of agriculture year in and year out.

In addition to these, the increase in the wealth of the province will also be very much substantial inasmuch as the industrial products have a greater mobility and command a better price than agricultural products. And though pricing would be materially altered, as already remarked, under the plan we are envisaging, there would be no doubt that the material wealth of the province, and the aggregate dividend to be distributed among the people, will be substantially increased by a planned programme of industrial development.

NOTE.

Copy of Demi-official letter no. 14-D.T., dated Patna, the 11th June 1938, to the Hon'ble Ministers of Industries of all Provinces.

Now that we have all turned our attention to the development of industries, without which any scheme for economic development would be incomplete, it is essential that we should work out a co-ordinated plan on an

all-India basis in respect of all the large and key industries. Even for the basic materials essential for our existing industries and the smallest power machineries we are dependent on outside supply, a position which would cause serious anxiety to any nation in the present trend of world politics. While the cottage and small industries can be left to the provinces to organise and develop, the large and key industries on account of the large capital invested, the wide market that they have to cater for and the competition from outside, besides their national and political importance, must depend for their success on the whole-hearted co-operation of all. For the proper development of these industries, the following measures are considered essential:—

- (1) A list of important and key industries deserving of State recognition and encouragement should be drawn up, after the necessary survey of the needs of the country.
- (2) These industries should be set up and fostered in areas which are economically most suitable from the point

of view of supply of raw materials and past development, so as to be in a better position to meet foreign competition and give maximum relief to the consumer.

- (3) The indiscriminate expansion of a particular industry should be controlled to keep pace with the demand and avoid cut-throat competition and to give adequate return to the labour.
- (4) Currency, tariff, railway freight, etc., being vital factors for the development and progress of these industries, all the provinces and States must combine and present their united demand to the Central Government for necessary help and protection.

It is impossible for each province to develop all the important industries and if it did so we should soon be faced with over-production and consequent set back in our industrial progress, not to speak of the enormous waste of money and energy which could be diverted to more useful channels.

On the other hand, if, in accordance with a co-ordinated plan, each province could take up 2 or 3 selected industries for which she is considered economically most suitable, we shall have made a great stride in the industrialisation of the country within a few years. Very large industries like manufacture of motor cars and other high powered machineries, requiring centralised production, could also be established with the co-operation of all the provinces and States and the Central Government. Once it is decided to earmark a particular industry to a selected province or State or a set of them, all the other provinces and States should combine in helping in the disposal of the products and in securing other necessary facilities and protection from the Government of India.

In the province of Bihar, we have the following important industries:—

- (1) Iron and copper, (2) Coal, (3) Mica,
- (4) Cement, (5) Refractories and porcelain, (6) Sugar and (7) Lac.

Besides these, paper, aluminium and other industries are in the process of development. We also have a number of industries like

glass, pottery, tanning, plastic moulding of lac, chemical industries utilising the by-products of coal and metal industries, power alcohol, 'etc., which we may be in a position to develop in consultation and in co-operation with the other provinces and States.

We have in co-operation with the United Provinces recently taken up the rationalisation of stabilization of the sugar industry and we propose to take up the stabilisation of the lac industry shortly in co-operation with the Central Provinces. In respect of the sugar industry, which was in a very bad way not long ago, the United Provinces and Bihar have taken steps by passing necessary legislation to control over-production of sugar and prevent cut-throat competition between factories, to ensure a fair price to the grower and to help the improvement of sugarcane 'cultivation, so as to be able ultimately to reduce the price of sugar to the relief of the consumer, without hardship to the grower, and to stand up against foreign competition without a high tariff wall. While we are much encouraged by the success so far achieved by the co-operation between these two

provinces, which produce the bulk of the sugar, we feel that no permanent benefit can be derived unless action on somewhat similar lines is taken throughout India and all the other sugar-producing provinces and States co-operate in the scheme.

It is very necessary that the general subject of development of large industries and the specific problems with which particular provinces are faced should be discussed at an early date in a conference of responsible representatives of all the provinces and States which should be called by the Government of India. It may be possible to include this as a special item for discussion at the next meeting of the Industrial Research Council, which is generally held in July or August, or at the next Industries Conference, which is generally held in December; but before approaching the Government of India I am of opinion that the representatives of the provinces should meet and have a preliminary discussion so as to be able to present a united front on this important issue. The Industries Ministers who are also in charge of Agriculture will be at Simla on the 4th and

5th of July to attend the meeting of the Governing Body of the Imperial Council of Agricultural Research. May I suggest that they should come to Simla a day or two earlier and the other Ministers in charge of Industries should also come to Simla on this occasion, so that we may discuss the above matter on the 2nd and 3rd July and come to an agreed decision. We may then address the Government of India accordingly on behalf of our respective provinces. If you can not attend this discussion personally, may I request you to send your Director of Industries or other authorised representative to Simla to take part in these deliberations, but I do hope you will be able to attend personally in view of the importance of the subject. I am also addressing the other provinces similarly, and on hearing from you in reply, I shall be able to fix the time and date of the proposed meeting.

Hoping to be favoured with a very early reply.

Yours sincerely

SYED MAHMUD

CHAPTER VII

RECONSTRUCTION IN EDUCATION.

Education is the basis and condition for all real and lasting reconstruction in all other departments.

The problem of Educational Reconstruction may be looked at from a variety of standpoints. There are, first, the various stages of educating the young, including the problem of abolishing the prevailing appalling illiteracy among the young as well as the old, among the men as well as the women. Further, there are the different branches of education, e.g., professional and technical, vocational or research. Lastly, there are some specific problems, impossible to class in any of the above categories,—e.g., the problem of educating women or the backward classes—which are peculiar to India, and must be separately considered. It is needless to add that these are not mutually exclusive divisions, but that every aspect of the main problem would overlap every other

and the constructive suggestions in one must react upon and considerably modify the problem in every other division.

The problem may also be considered from the standpoint of finance and man power. There is, however, a common element in all the various divisions or aspects of the problem. As such, we shall consider these collectively or severally with reference to each division as we go along.

For convenience of handling the entire problem of educational reconstruction, let us consider it in the following special divisions.

According to the stages of education which are as follows :—

- (a) Adult Illiteracy;
- (6) Primary education would begin from the infant class and end' with the acquisition of a definite basic minimum of universal education considered indispensable for modern civilised life.

The secondary stage will, if the Wardha Scheme is introduced, have to be completely reorganized and will comprise University preparatory

schools and various vocational institutions.

- (c) The collegiate or the University stage would include not only the under-graduate studies leading up to several diplomas or degrees but also to the post-graduate studies and special research work in different branches of science. Specialised professional training would also come in this group. All this should be correlated to the needs of agriculture, industry, commerce and higher scientific work. Except at the lowest primary stage, which must be the basic minimum of universal education, at each stage the programme of public education should be so framed that every stage bears a direct relationship to the needs of the province. In other words, proper adjustment between the needs for persons trained for different occupations, as indicated by the plan of reconstruction and its

progress, and their supply would be aimed at and unemployment among the educated classes avoided as far as possible.

In this case again it is not possible, to estimate with any precision the proportion of students who will have to be given University or professional training from among those who complete their secondary education, but if we assume that one-tenth of the latter will have to be trained in the institution giving higher education, the assumption will most likely not be in excess of our actual needs.

.Technical, vocational and professional education will either be of secondary or University type and will have to be provided at the appropriate stage. With regard to it the question of adjustment of supply to demand will have even greater importance; but owing to the fact that very great expansion of social services will take place and the contemplated economic development will necessitate increase in the demand for experts of various sorts, development of the branch of education will have to be undertaken in

right earnest and have a very important **place** in the scheme of educational reconstruction.

(d) Other Problems of Educational Reconstruction.

(a) *Adult Illiteracy*.—The prevalence of immense adult illiteracy is a problem in itself, which no civilised democratic government can afford to ignore. The magnitude and urgency of the problem need not be emphasized, for, unless it is solved, any progressive scheme of reconstruction can hardly be inaugurated, much less completed.

Education of the adult mass illiterates is a particularly complicated problem, and a special technique for its solution will have to be evolved and **used**.

The problem of male adult illiteracy may be solved by a system of night schools, the aim of which should be not only to enable the illiterates to read and write but also to bring about a mental awakening among them. This work may be divided into two parts: (a) Pre-literacy work, which will consist of teaching them reading, writing and arithmetic, (6) Post-literacy; work, which will consist in running continuation classes and

awakening them to a new sense of duty and responsibility.

There may be opened throughout the province two types of centres:—

(1) Permanent Literacy Centres should be started in the middle, upper and lower primary schools. The teachers of these schools should be entrusted with pre-literacy and post-literacy work. Where necessary, these teachers may be given a short course of training in the Rapid Methods of Teaching the Adults. These centres will be called School Centres.

It will be compulsory for the teachers to take up this work—a sort of conscription for national social service. Each teacher will be paid Us. 5 per month in addition to his pay.

(2) Centres should also be organised on a voluntary basis by the students of colleges and high schools, by private organisations and business corporations, and by such Government establishments as Jails, Agricultural Farms, etc.

At each centre (of both types) classes will be held in the evening. One batch of 25

adults will be expected to complete the course in three months. Thus each centre will be able to make 100 persons literate every year. According to the census of 1931, there were about 64 lakhs males in Bihar of the age period 15—50, i.e., there are almost as many adults as there are children of school-going age in the province. Under this scheme of educational reconstruction we will have to open sufficient number of schools in a given period of time to provide for the primary education of about 60 lakhs of children. These schools should therefore provide sufficient number of centres of night schools for the removal of illiteracy among adults. Aided by voluntary efforts there can be no doubt whatever that adult illiteracy can be banished from this land in a period of ten years, if not earlier. Grants-in-aid of small amounts can be given to selected voluntary centres to meet the cost of equipment and contingency.

The school centres will be expected to raise locally the cost of oil, lamps and slates, while the Government can supply Charts, Primers and Readers.

Post-literacy work will be carried on at the

same centres and for this purpose Circulating Libraries will have to be organized, News Sheets supplied and arrangements made for visual instruction.

The actual work of organization and supervision of the centres will be performed by the Inspecting Staff of the Education Department.

Magic lanterns will be supplied to Sub-Inspectors who will use them while they are visiting the Literacy Centres or lend them for use by qualified workers.

It may be noted here that the mere provision of funds or setting up a machinery, as indicated above, will not by themselves solve this problem, unless the movement acquires the character of a crusade against illiteracy and is sustained by the right spirit.

The problem of removing illiteracy among the adult women is much more difficult than that among the men. Due to the existence

* This scheme has been in operation in Bihar for the last 6 or 7 months. It was at first started as a voluntary campaign and is now being put on more permanent basis. Over 3 lakhs of people were made literate in the course of 8 months as a result of purely voluntary work.

of the *purda* system women are not as easily approachable as men are. Their household duties also require their presence in their homes almost at all hours throughout the day, and therefore it is difficult to get them to come to a centre for receiving instructions. The methods adopted in their case will therefore have to be rather different from the methods described above. In this case perhaps it will be necessary for the workers to go from house to house or at most get only a few of them together in the house of one of them for the purpose of instruction. The other difficulty is that the services of male teachers cannot be utilised for this purpose. Women workers of necessity will have to be employed but at present enough educated women are not available for this work. The progress in this branch of the work therefore will necessarily be slow. Thanks, however, to the enthusiasm and efforts of a few public-spirited ladies, it has already been possible in Bihar to organize a few centres for adult literacy work among women and it is expected that more centres of this kind will be organized in the near future. This

part of our plan of reconstruction in education may take longer time, but it should be possible to accelerate the rate of progress as the general development of the province proceeds apace.

(b) *Primary Education.*—The reorganization of primary education may be considered from the point of view of (1) the standard to be aimed at and (2) the means by which it is to be achieved.

The volume of illiteracy, though differing in the different provinces, is in the aggregate appalling in every province.

Provinces.	Total no. of scholars ...		Percentage of total scholars to population.
	in all kinds of institutions.		
	1934.	1935.	1935.
Madras	3,019,360	3,094,203	6.6
Bombay	1,374,296	1,422,146	6.5
Bengal	2,966,712	3,075,272	6.1
united Provinces	1,578,689	1,584,840	3.3
Pan jab	1,280,764	1,268,474	5.3
Bihar and Orissa	1,138,909	1,184,968	3.1
Central Provinces and Berar.	482,718	501,197	3.2
Assam	383,451	403,890	4.6
N. W. Province	93,575	95,263	3.9
Total British India*	13,172,890	13,506,869	5.0

* Includes figures for Minor Administrations and Province (Centrally administered areas).

ultimate objective. This explanation is accordingly added to guard the reader against too facile a condemnation of the whole work simply on the ground of an apparent inconsistency.

The question of finance is all-important, and though incidentally certain aspects of it have been dealt with in the discussion of the various issues involved in the scheme of reconstruction outlined in the preceding chapters, their specific treatment has not been undertaken. Among the reasons which account for their omission, the most important is that if the scheme is accepted and put into effect, it will mean a thorough transformation of the whole economic life of the community and establishment of a new co-operative economy. That will mean that the whole basis of finance will be changed and lead to the formulation of entirely new principles and policies in the domain of finance. The community through its appointed agent, the Government, will become an acknowledged co-partner in all productive enterprises, will play an important almost a decisive role* in their management

In Bihar, according to the latest statistics, of every 100 students in the elementary schools, there were :—

Infant Class	...	31.42
Class I		20.6
Class II		17.9
Class III		14.7
Class IV		8.7
Class V		6.9
Total		100.0

It is possible to argue, of course, that in many cases the explanation of this poor return lies in the fact that the teachers are badly paid and schools poorly equipped. The argument is not as sound as it appears, since practically the same proportion of wastage and stagnation is found in the elementary schools of even Bombay City, where the minimum salary of teachers is the highest in India, and where schools are quite well-equipped. Even granting that improvement in the scales of salaries of elementary teachers and the standard of equipment of schools is needed, the problem of stagnation and wastage, it is clear, requires

the adoption of special measures to getting full return for the educational expenditure.

The problem of elementary education in the province as in the whole country is the problem of ensuring that all children of school-going age receive education which will make them not only literate but also educated upto the basic standard. In Bihar the number of such children was about 60 lakhs in 1931 out of whom about 7 lakhs or nearly 11 per cent are at school, but as less than 7 per cent of the pupils in elementary school complete the primary education, the percentage of school-going children who are really being benefited by our present system of primary education is .83 per cent for whom the Province is spending about Rs. 45 lakhs. As even these receive very poor education, the amount now spent is not at all utilized profitably, and without a complete reorganization of the system of education there is no chance of our getting a satisfactory return to it.

It is not necessary to suggest the lines of this reorganization, for this Province has already accepted the Wardha Scheme and

is, as stated in an earlier chapter, trying the experiment on a fairly large scale. As a result of the discussion of the underlying principles of the Wardha Scheme its purpose and objectives have been clarified and are now better appreciated. The scheme aims at not merely literacy but education in the real sense of the word by developing in the children civic sense and national outlook by reducing the authoritarian element in schools to a minimum, by teaching them respect for humanity and greatness in all countries and all forms and more than everything else, by using concrete life situation and co-relating them with one or more forms of productive manual work for the purpose of creative education. The basic craft, it has become quite clear, is to be the new educational medium through which the latent ability of children is to be developed and they are to be brought into contact with the realities of social life and given an insight into its working. As the instruction is to be given through the mother tongue and the period of education is to be 7 years, the problem of wastage will naturally solve

itself and the standard of education raised much higher than what is attainable at present.

As the problem of organization, technique, school buildings and equipment are being tackled by the Hindustani Talimi Sangh, it is not necessary to say anything about them here. The necessity of training teachers for new education has been duly emphasized and in Bihar one training centre has already been opened and more will be started as the new system is extended. Expenditure on buildings and equipment, though unavoidable, will under this scheme, be minimised and an attempt will be made to use the school not only as a place for providing instruction for children, but also as a real community centre for the village—a new focus of organizing and stimulating the life of our people. The scheme will, if carried out in the spirit in which it has been conceived, carry us a long way, and if it is developed in truly experimental spirit, it will provide its own correctives and its deficiencies and defeats will *be* remedied as

practical experience is acquired of its working.

As regards the self-supporting aspect of the scheme it is not certain whether the expectation entertained in some quarters that **it will** finance itself will be fulfilled in actual practice. But even if the scheme only partially pays for itself, it will, to that extent, solve the problem of educational finance and, will, on that account, be extended more rapidly than any other alternative scheme. The idea of supplementing the inherent possibilities of the Wardha Scheme by endowment of land which is being tried in the C. P. educational scheme will have to be watched with great interest and if its results are satisfactory, it will be further helpful from the financial standpoint. But the main point which matters is that the Wardha Scheme is educationally sound and deserves, therefore, careful consideration and fair trial.

In Bihar we have at present about 21 thousand primary schools and if we aim for the time being at the average of at least one school for two villages the required number

of schools should be about **33** thousand. The existing schools will have to be reorganized and about 12 thousand new schools opened. At present the number of elementary school teachers is about 30,000, but if all the 60 lakhs of children of school-going age are to be provided for, we shall, at the rate of one teacher per 40 pupils, require 150,000 teachers; and as the number of school-going children will have increased by nearly 10 per cent in **the** present decade and by another 10 per cent in the next, we will have to make provision **for** another 12 to 13 lakhs of children and therefore for at least **30,000** teachers. **That** means the additional teachers **required for the programme of basic education on the Wardha lines will be 150,000**, and if a decade is accepted as the period for carrying out the **entire Plan, including the educational plan, 15,000 more teachers will have to be employed every year. That will show what a vast undertaking the task of educating our masses is going to be. We will need money for it, but more than money, we will need men of the righttype**

(c) *University, Technical and Professional Education.*

Taking next the University standard we must lay down certain basic principles of approach to this problem. The commonest criticism against university education in India is that it is overwhelmingly literary, divorced from the requirements of real life and concentrated on training just that type of native assistant, subordinate and clerk, whom the foreign ruler of India needed. To meet this criticism we must, in the first place, make a forecast of the number of men of the highest training and capacity for the several departments or requirements of daily life. It is of the essence of a Planned Programme of Provincial Reconstruction that such estimate be made of every kind of requirement for carrying out the Plan. This estimate may be subject to a margin of error; and may be affected by the progress of the Plan itself. A certain degree of elasticity is, therefore, unavoidable in such estimates. But, even so, their positive value will be that the framers and executors of the Plan will have a general indication of

the nature of the task and the pace necessary for its performance. Thus, for example, we may need, for the 67,000 odd villages and 32¹/₄ million souls of the province, at least—

- | | |
|----------|---|
| 32,500 | Medical men, including surgeons, dentists, etc., of several degrees of qualification. |
| 32,500 | Nurses of several degrees of qualification. |
| 200,000 | Teachers of several degrees of qualification (including primary, secondary and university teachers). |
| 15,000 | Lawyers of several degrees of qualification. |
| 10,000 | Engineers of several degrees of qualification. |
| 130,000 | Clerks, Accountants, Estate Managers etc., Technicians in the several branches of modern mechanised Industry and Transport, and metallurgy. |
| 10,000 | Pure scientists and research workers on the various problems of life and its activities. |
| 10,000 | Other highly trained specialists in all other branches of knowledge and technique. |
| .545,000 | In round terms, 550,000. |

Training of nearly 5.5 lakhs of University men in five or even ten years is going to be an enormous undertaking for any University. The needs have been calculated at very moderate rates, e.g., 1 medical adviser for every 1,000 souls or 2 villages, 1 nurse, 6 teachers, and 2 clerical assistants of all kinds. There will be need for even more highly trained men, whose available supply is, it is well known, very limited and increase in their number will be more necessary and difficult if the other sections **of the Plan are developed** according to schedule. These **will**, therefore, be absorbed as soon as they have been trained; **and** there can be no problem of unemployment in their case.

The University must train these **persons for their chosen branches of specialised work. It would mean that over 50,000 graduates or licentiates would have to be trained in the various departments every year.**

This, then would be the second principle guiding the framere of the Plan in their preparation of the programme of training

such workers, i.e., training such of them only as have finished a prescribed stage of preliminary education, and in such numbers for the various faculties, degrees, diplomas or courses as can be readily absorbed in the available jobs. Men so highly trained must not be placed in a position to exploit their fellow citizens because of their superior knowledge and for their own personal advantage. They must be guaranteed a living wage as public servants.

The third basic principle of reorganisation of education in university stage is more important than the preceding ones. Wherever a branch of education and training has a practical importance, i.e., in all classes in which private individuals are likely to make a profit, or even local associations are deriving a traceable benefit from the aid of such highly trained individuals working at their enterprise or for their service and benefit, those individuals or corporations should be required to maintain the institutions needed for training such persons. Thus a concern like Tatas in the Iron and **Steel** business could well *be* asked to maintain

an Engineering or Technological College; or those concerned with the Sugar, the Cement, the Paper, or Power Alcohol Industries be similarly called upon to maintain such an Institute for higher scientific training pertaining to their own industries. A mining school or college at the expense of the coal companies working in the province; an Agricultural Institute maintained by the several Agriculturists' Associations in the province, etc., may take off a considerable portion of the cost of university education and research from the shoulders of the general tax-payer. Nevertheless, the latter will not be completely relieved from this burden. All those services which are important from the point of view of the community as a whole, e.g., medical relief teaching, or pure science and arts will have to be maintained, in the highest stage, at the general public expense.

The University would, under this arrangement, train up, or supervise the training of very much larger numbers than is the case to-day; and will, at the same time, have no anxiety about the employment of its alumni

A total of 50,000 under-graduates in all branches, to be worked up to in five or at most 10 years is not a small affair! But its costliness will be considerably reduced by the methods suggested already and by the reduction materially of the excessively high emoluments, for exceedingly limited quantity of work allowed to the university teachers. Given the economic ability of the province, no individual work can, or should be allowed to command an income larger than Rs. 500 per month which would be about a hundred times larger than the average income per head in the province if not much more. The university teacher should, therefore, on an average, be allowed a salary and emoluments not exceeding Rs. 250 a month in the aggregate. This ought to reduce considerably the unit cost of education in the University, though of course, owing to a very sharp and substantial increase in the numbers, the aggregate cost will have to be increased, even in the university stage.

How far the province should be called upon to bear this increased cost of university education, despite the methods suggested

above of passing on a goodly portion of that cost to private individuals, profit-making corporations or even local associations? Is there any room for choosing one section as against another for immediate treatment as being more urgent? There can be no question that the provision of the irreducible minimum of universal compulsory and free education is the most urgent of the problems facing the country to-day; and the removal of adult illiteracy is also quite as urgent. The two between them would absorb a very large proportion of the surplus funds, if any, available to the Provincial Government. But, even so, the other branches of educational reconstruction cannot be wholly ignored, even for the time being. The full execution of the entire Plan of Provincial Reconstruction would be considerably impeded, if not wholly frustrated, should we concentrate attention only on given sections and ignore the rest. The problem of funds is important and difficult but it is not insoluble, and taking into account the urgent necessity for providing well-trained men for higher work in the programme of

reconstruction, university education has to be given its due place in this programme.

University education, properly reorganised, will simultaneously solve the problem of adequate technical, vocational or professional training in the province. In fact, the remarks made above indicate that the programme contemplated herein will cover all phases and aspects of this problem. No university training must be regarded as complete, unless and until some practical experience of the knowledge acquired is shown by the aspirant to university honours. For this purpose, every branch of university studies should, wherever feasible, be held in close conjunction or co-operation with the corresponding practical activity; e.g., of those being trained as teachers in the actual village schools or higher scholastic institutions; or those being trained as doctors, nurses and the like similarly working in their respective branches of knowledge under **the** appropriate bodies looking after those services. The same must apply to other departments of Government, and, of course

to private individuals or corporation concerned with any such business or enterprise requiring the services of such highly trained people. Banks and business houses; factories and mines; manufacturers and construction corporations; agriculturists' associations and insurance companies—all must provide facilities for practical training in workshops, factories, mines and business houses under their charge in the province. This would effectually remedy the most outstanding defect of university education in our country—i.e., isolation from the realities of actual life.

(d) *Other Problems of Educational Reconstruction.*

As for the remaining problems in connection with educational reorganisation the most considerable are: education of the backward classes and women to a higher cultural standard that may be set for the general population to make them more intelligent and active citizens of a modern democratic state. The problem of educating the backward classes upto a prescribed minimum of universal education will be simplified by the suggestion made above already, viz., the

introduction of some concrete craft in the lower stages of education, so that the simplest mind is held to attention by the activity of the hand and a sense of confidence, of creative power, of personal self-expression is generated side by side. It is possible that the so-called backward classes may be mentally less advanced, or less endowed to start with; but this method of making knowledge concrete and correlated with the tasks or joys of daily life is bound to appeal to the lowest, simplest intelligence which would itself expand as training in such a basic craft, and through it, proceeds.

The better education of women, on the other hand, must be tackled as part of the general problem of illiteracy among the masses. True there are certain social customs and circumstances which render the tasks of educating the mass of women initially difficult but these customs are "part of that social environment which we must combat and radically change. Women's education and training may be, to start with at any rate, on **lines more suited to their** actual work in life. According to the traditional view of that

matter; but that need not imply any differentiation in civic status or any inequality as between men and women. The basis of education throughout the system being fixed with an eye to the actual task in life, it would be absurd to ignore altogether women's traditional place in the social system and any education given them as a class without exception must take this factor into account. But merely taking that factor into account and utilising the force of tradition for eliminating illiteracy is not the same as recognising inequalities and perpetuating them. Again, in the beginning at any rate, if not for a long period to come, successful campaign for the education of women can only be conducted with the aid of women instructors, and these are lacking, even under the present very limited field of education of women. But whether or not we secure women teachers in sufficient numbers (it may perhaps never be easy in this country to secure women teachers in the required number), and whether we have co-education of boys and girls to cope with this peculiar difficulty, we must utilise the available **energy**

to the best advantage. The only aid to the human element may be sought in such mechanical devices* as the Radio and the Cinema, which could well be used to accelerate progress and bring it to a successful close within a given period of time.

CHAPTER VIII

FINANCE,

In the preceding chapters the plan of provincial re-construction and development outlined in this province has proceeded mainly on the assumption that, though socialisation of all means of production is not to come in our time, we must design the new economic system on such foundations, and give it such a turn in working that it would lead in course of time to such a consummation. The present chapters on finance has, however, to deal not with a situation as would be 10 or 20 years hence, when this consummation may have been attained; but has to deal with the realities of the situation as they are to-day. Under the circumstances in, the observations that follow, though there may appear to be some contradiction in the pages preceding, particularly with reference to the underlying ideal, such seeming inconsistency is not only inevitable, but seems to the writer the only means to attain the

ultimate objective. This explanation is accordingly added to guard the reader against too facile a condemnation of the whole work simply on the ground of an apparent inconsistency.

The question of finance is all-important, and though incidentally certain aspects of it have been dealt with in the discussion of the various issues involved in the scheme of reconstruction outlined in the preceding chapters, their specific treatment has not been undertaken. Among the reasons which account for their omission, the most important is that if the scheme is accepted and put into effect, it will mean a thorough transformation of the whole economic life of the community and establishment of a new co-operative economy. That will mean that the whole basis of finance will be changed and lead to the formulation of entirely new principles and policies in the domain of finance. The community through its appointed agent, the Government, will become an acknowledged co-partner in all productive enterprises, will play an important almost a decisive role* in their management

regulation and control and use its position and power to maximize production, bring about a fair distribution of wealth and utilize its resources for raising the standard of living and cultural status of the people to a level worthy of a civilized society.

The whole scheme, as it goes into operation, will increase the resources of the community and provide the surplus necessary for developing social services. The most important changes envisaged in the scheme will finance themselves and make even a net contribution to the public exchequer. Redemption of the debts of the landlords and cultivators, acquisition of the proprietary rights of the landlords by the issue of bonds and the introduction of a system of co-operative production, to take the three most important changes proposed in the scheme, will not require any outlay of public funds. Redemption of debts will, if the expectations are realised, yield a surplus of Rs. 50 lacs in the case of landlords' debts* and Rs. 1.5

*' •_— — —Pags 89.

crores in that of the cultivators' debts and the acquisition of the landlords' rights will leave a balance of Rs. 1 crore. These three schemes will together increase the public revenue by nearly Rs. 3 crores and the additional amount so made available can be used for the development of social services.

Introduction of co-operative cultivation, though not directly adding to the public revenues, will increase the purchasing power, and, therefore, taxable capacity of the people; and increase the yield of other taxes, like the income-taxes (a portion of which accrues to the provinces), the sales tax and the revenue excise duties. It is impossible to estimate even very roughly the additional revenue which can be derived in this way, but it can well be assumed that a beneficial measure like the introduction of Co-operative cultivation cannot but result in expansion of the fiscal resources of the State.

The State will also acquire a fiscal interest in the large • industries and public utility

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enterprises which it is proposed to develop through State-aid in various forms. The State, besides having a voice in the location, development and management of these enterprises, will be entitled to a share of profits when they exceed a certain prescribed limit. It should run public utility enterprises on its own account, and, therefore, be entitled to whatever profits accrue. It is again impossible to estimate how much revenue the State will be able to derive from its partnership in or direct ownership of the industrial enterprises, but the amount should be considerable.

Need for the levy of additional taxation has been already referred to a number of times and has to be faced. The Government of Bihar has already introduced a few taxes, of which the most important is the tax on agricultural incomes. The tax being a new measure, its rates have been fixed purposely low in order to get people accustomed to the new impost and acquire a practical experience of its working. If the tax is graduated as it should be and the fact that those on

whom it falls are richer and therefore, rightly liable to differential taxation duly taken into account, yield of the tax can be considerably increased. But if the landlords' rights are acquired by the State and they cease to occupy their present position in rural economy, the position will undergo a fundamental change.

Among the other new taxes which can be imposed, the place of pride must be given to the Inheritance Tax which has been referred to several times as an important measure of fiscal reform and a hopeful method for the reduction of the grosser power of economic inequalities. There is a general consensus of opinion that this tax should be imposed. The Government of India has already appointed a special officer (Mr. Lloyd) to study the ways and means of introducing the tax; and the Government of India and the Provincial Governments can, if they co-operate, make the tax effective and productive. It is not necessary to deal with the problem at any length here, but granting that the tax will be levied, it should, it need not be stressed, be steeply graduated and in

higher ranges of wealth it should be at least as high as it is in Western countries, say the United Kingdom, i.e. 50 per cent. In India bulk of the people are poor and, therefore, must remain, owing to their not having legacies to leave beyond the reach of the Inheritance Tax, but here inequalities in the distribution of wealth are even more glaring than in most other countries and therefore the fiscal and social justification for introducing and developing the tax is all the greater. If the tax is fully developed and efficiently administered, it should be a good revenue producer and yield anything from Rs. 1 to 2 crores, the actual amount realised being nearer the latter than the former limit.

Among the other taxes which can be introduced the Sales Tax has received prominence and decision of the Federal Supreme Court has removed whatever doubt existed regarding the competence of the Provincial Government to levy the tax. There are administrative difficulties in the levy of the tax, but if reforms in the marketing organisation suggested earlier are carried out

and merchants are brought under regulatory public control, they can and will be surmounted. The only and serious objection to the tax will be that its burden will mainly fall on the poorer sections of the community. But if we take it that all the measures outlined in this book will be considered as parts of an integral scheme and be more or less simultaneously introduced, the people will have greater taxable capacity and as the amount realised from the tax, as from all sources, will be primarily and mainly used for developing social service for the benefit of the masses, regressive character of the Sales Tax should not be reckoned as a conclusive objection against it. Experience of other countries like Germany, France, and Canada has shown that the tax can be productive, and in India also the tax can be developed with full assurance that its yield will make its imposition worth while from the fiscal standpoint. Once again only a speculative estimate of the likely yield of this tax has to be made and the figure which has to be assumed in the case, may be taken as 'Rs. 1

crore—a figure which errs more on the side of under than over-estimate.

Retrenchment has always been regarded by our people as the most promising method of finding funds for development. There are constitutional difficulties in the way of effecting substantial retrenchment and there are also practical difficulties owing to our having to carry on administration in the framework of the existing traditions. The latter have to be and will be changed, and the constitutional difficulties will also have to give way before the growing strength of the national movement, but for the present the scope for retrenchment is limited, and therefore the search for means of eliminating or reducing waste in expenditure is in progress and has to be continued. Savings cannot, particularly in a province like Bihar, yield more than Rs. 50 lakhs for expenditure on beneficial services.

These speculative forecasts may be summed up in order to know at a glance how much additional revenue can be derived from these

measures when the plan matures. The summary is as follows:—

Net Revenue from measure of economic reconstruc- tions	Rs. 3 crores.
Net Revenue from industrial enterprises	Rs. 5 crores.
Net Revenue from additional taxation	Rs. 3 crores.
Savings	Rs. 50 lakhs-

Total ... Rs. 11.50 crores.

These forecasts being what they are—very tentative and hypothetical—cannot be made the basis of any long-range budget making. Against this amount is to be set the anticipated loss of a little over Rs. 1 crore from the province, vide introduction of prohibition. That will reduce the anticipated increase of revenue to Rs. 10.5 crores, but if we are to take a round figure and assume that minor sources of revenue will contribute an additional Rs.^o 50 lakhs, a fresh revenue of Rs. 11 crores may be taken as a reasonable, though a very rough, forecast.

It has, however, to be pointed out that as our scheme promises a change in mental outlook, habits of conduct and standards of action of our people, it will, as it is developed, release new energy which will place at the disposal of the Government resources now not available to it. Development of Co-operative cultivation will have as its incidental but very important result wide diffusion of co-operative spirit, acquisition of habits of concerted action for common ends and setting free of energy which though it may not be possible to put on the revenue side of the public budget, will have an immense importance from the point of view of development. The Co-operative Associations for organizing and administering co-operative cultivation will, by a process of natural and inevitable evolution, become agencies for carrying out all kinds of public duties and will be able to make provision for **improvements and reform, in their own budget, which at present cannot be undertaken at all. They will also be able to draw upon the voluntary labour of their members for local improvement's and development and**

tap a source of real revenue which, for want of public spirit and habit of organized action, now cannot be drawn upon. If it is admitted that real wealth of the people consists in their labour and the spirit and initiative which they bring to bear upon the task of utilizing it for common ends, the scheme has implicit in it new vistas of achievement which can now be only imagined but which will become actual facts once the real significance of the scheme is appreciated and its inherent possibilities fully realized. Finance is not merely a matter of revenue and expenditure estimated, revised and actual. Its essence consists in adjustment of common means and resources to common needs and ends, and the scheme being in its very conception an attempt to mobilize the unused resources of the community for the supreme need of making an organized advance, has a meaning which transcends the limits of speculative estimate of additional revenue made above.

In the new co-operative effort and spirit will, therefore, be found a means of development which has a far-reaching significance.

Public expenditure is in reality a co-operative use of public resources and if our people can learn to work together for common ends, they will, thereby, acquire the habit of pooling their resources, material and human, for realising common objects and satisfying common needs. This new source of real public revenue cannot be evaluated in terms of money but it will not be the less important or productive on that account.

It will take, however, some time before the new source can be brought into play and in the interval all the additional funds will have to be devoted to improvement of the general condition of the people in order to create new opportunities for them and give them the strength and confidence to rise to these heights. That implies that as the additional funds become available, they should be utilized for building up the new organization and creating the strength and outlook for the performance of their new tasks by the people themselves, which, of course, means education of the public in the

widest sense of the word, improvement of their health and living condition and making available to them the necessary guidance and knowledge for changing and reorganizing their life. For this purpose no estimate of the amount required need be made for no amount is or can be large enough to satisfy even our most crying needs. Provisions of basic education, of elementary medical aid and sanitary services and of construction of communication, to take the most clamant needs, require all the money that can be made available in the next decade. Schemes of development like the Wardha Scheme which promise to be even partially self-supporting, should have a prior claim upon our attention, but the main point is that the budget of our requirements or demands for grant is ready-made for us by our needs and in this brief review of the financial aspects of this scheme does not call for any detailed consideration.

If, however, some indication of the allocation of additional funds is regarded necessary the following ,illustrative distribution

of the hypothetical eleven crores of rupees may be made :—

	Crores.
(1) Education	3
(2) Public Health	1
(3) Agriculture	1.5
(4) Industry	2
(5) Communication	1
(6) Commerce including marketing	0.5
(7) Floods and irrigation	2
Total	11

India is in a process of rapid transition and what will happen in the next ten years cannot be even vaguely foretold. The promises on which the scheme has been based are themselves rapidly changing and some of them will not be valid before very long. But in view of the urgent necessity of going forward in spite of our tremendous difficulties, it is necessary to print out the outlines of a scheme of development and do what is possible to introduce it. This scheme is an attempt to point a way out of our existing difficulties' The details will

have to be 'decided upon when we are agreed with regard to the essentials. But to clarify our ideas and give them coherence for the purpose of action, it is necessary to make them definite and suggest concrete measure of development and reconstruction. This scheme will, it is hoped, be regarded as an earnest effort to provide a basis for the formulation of a well considered plan and as such receive careful and serious consideration.

CHAPTER IX.

CONCLUSION.

It is not necessary to summarise the salient points of the scheme of reconstruction described in this book. But in conclusion it is desirable to state that its underlying idea is to view the whole problem of reconstruction in its entirety. The details are, relatively speaking, of secondary importance; what matters is to realise that the problem of problems in India is to increase the purchasing power of the agriculturists, and that end cannot be achieved without rationalization of agriculture. Small size of holdings and the impossibility of making them large enough to enable us to utilize even the existing resources to the greatest advantage, not to speak of introducing scientific farming on modern lines, make co-operative cultivation an imperative economic necessity. Without it all that is possible in the introduction of minor improvements will not carry us far; but with it we can not only make agriculture progressive and much more productive, but

reorganize the entire life of our villages and blaze many new "trails" without giving our people rude and disturbing shocks. We can change the whole outlook of the agriculturist, give him new habits and thoughts and action and change the entire background of our national life. The essential reforms like efficient agricultural marketing, elimination of the parasitical middlemen and standardization of weights and measures and solution of the problem of chronic underemployment of the agriculturists will follow as a matter of course once the necessity of co-operative cultivation is fully grasped and every attempt made to make it a success. That is why this change is regarded as a cardinal feature of the scheme and the necessity of making it emphasized.

This change, however, cannot be made unless various survivals of the past, which now inhibit our economic development, are made harmless and cease to obstruct progress. The proposal for the redemption of the landlords' and cultivators' debts, the acquisition of the landlords' rights and conversion of the money-lender into a public functionary

for the distribution of rural credit under public regulation and control have been made with that end in view. They, if put into effect, will simplify the whole situation, get rid of the difficulties due to the complicated system of land tenure and bring into play forces of self-help and enterprize which, properly directed and canalized, will enrich our rural economy both from the moral and material standpoints and remove the menace of internecine strife of which we are becoming increasingly and painfully aware.

All these changes will, it has to be realized, be beneficial but they will create new problems for us. Among them the most important is the problem of surplus labour for which productive use will have to be found and this will make the development of industries, large and small, absolutely essential. A well thought-out scheme of industrialization with clearly demarcated spheres for small and large industries, adequate safeguards for the interests of labour and against the dehumanization of economic life, which the process has involved

elsewhere, is a natural corollary and essential condition of the reorganization of agriculture. Industrialization has been brought about on a national scale and by 'all parts of the country pooling their resources and pulling their weight in their national undertaking. In itself it is inevitable, but if its place and importance from the point of view of increasing the strength and wealth of the country is appreciated, it can and should be made as a measure for the introduction of diversified and well-balanced national economy.

More important than all the changes is the necessity of initiative and action on the part of the State. All the political power that has been or may be won has to be used to make the State the central organ for the inauguration and development of this scheme. The State should, as far as possible, stimulate and strengthen enterprise of the people and not bureaucratize their economic life. But its role is clear and cannot be performed by any other agency. It should plan, initiate, coordinate and control. It should assume responsibility for raising our teeming millions

from the present sub-human level to a level which may be compatible with the dignity beauty and real significance of life. It should provide social services for combating and overcoming ignorance, disease and misery. It should mobilize the material and moral resources of the people and provide the surplus necessary for cultured life for the people—life free from the fear of hunger and insecurity—and also for the adequate and efficient discharge of its own obvious and inescapable obligations. It is the belief that the State can play this role and to some purpose which is the inspiration of the effort involved in putting forward this scheme and of the hope that it will receive earnest consideration on the part of the thoughtful section of our people. It is hoped that this effort will bear some fruit and we shall do all that we can to go ahead in spite of our seemingly insurmountable difficulties. The difficulties will give way before a determined will to rise above them and we will be able to use our resources for making our country really free and truly great.

OPINIONS

**His Excellency Sir Maurice Hallett,
K.C.S.I., C.I.E., I.C.S., Governor of
Bihar :—**

* * * There are of course many
points on which I differ from you * * *

I feel it will serve a useful purpose; it has
been compiled with great care and I congratulate
you on this; it will make people think
about these important problems and will
facilitate the development of a practical
policy * * * ."

**The Hon'ble Mr. V. V. Giri, Minister for
Industries and Labour, Madras :—**

I very much appreciate the book entitled
"A Plan for Provincial Reconstruction"
and I agree with most of the suggestions
made and admirably presented. The most
important problem that faces us today is the
raising of the purchasing power of our people
so as to provide every man, woman and child

with the minimum requirements of life for a contented life.

In your admirable plan of Provincial reconstruction you have put forward a well thought out and comprehensive solution for the redemption of Agricultural indebtedness by the creation of Land Mortgage Banks and the public regulation and control of the village money-lender and the rationalisation of agriculture by co-operative farming and the compulsory acquisition of the melvarem interest of the permanently settled estate holder * * *

Your industrial plan contemplates the nationalisation of public utility undertakings and the ruralisation of all industries which will be developed on a cottage industry basis.

Your proposals regarding the financing of national reconstruction which will provide for the fullest utilisation of our vast material resources and enormous man-power deserve earnest attention of our leaders.

Your book will indeed be found useful by other Provincial Governments and I wish you

all success in your endeavour to state your views on many of the points affecting our country. I must congratulate you on your admirable industry and sincerity in producing a document of great value.

The Hon'ble Mr. Gopinath Bardoloi, Chief Minister, Assam :—

The whole of India has been fully set a-thinking as to how national India is to be reconstructed. Your book is not only topical but gives expression in a very full and adequate manner to the many ideas in regard to India's regeneration. In many ways it is anticipating the desire of the National Planning Committee for a full survey of the possibilities of improvement of our country so as to give at least a living wage to our half-starving population. Yours is a scientific treatment of the whole subject and should commend itself to all modern thinkers on the subject of national regeneration. The conditions of Bihar, as it seems to me, are not very much different from the rest of India, and although the various heads **dealt** With in the book have been illustrated with

special reference to the statistics and conditions of Bihar, I am sure it can be read with profit by the people of all provinces and by all who have the good of the country at heart.

The Hon'ble Mr. Biswanath Das, Prime, Minister, Orissa :—

I sincerely congratulate you on bringing out the book at a moment when it is bound to prove immensely useful. Your contribution through its chapters towards building India anew is very often original and the book provides ample thought-provoking material for those who are engaged at the present moment in the difficult task of reconstructing our dear mother-land on a thoroughly planned basis.

The Hon'ble Mr. Anugrah Narayan Sinha, Minister of Finance and Local Self-Government, Bihar :—

Through the courtesy of my colleague the Hon'ble Dr. S. Mahmud I was allowed to see the book at proof stage. I am glad to say that method of approach adopted for appreciation of the present condition of the country

specially of my province is commendable. In the earlier stages the economic condition of the country with special reference to the conditions prevailing in Bihar has been discussed and the low percentage of education both male and female has naturally been emphasised. The natural resources of the province which have so far been partially utilised have been fully enumerated and means have been suggested by which the material condition of the people may appreciably improve. On the whole this gives a vivid picture of what the country or the province has been and is, and by adopting the method suggested in the book, of what it is likely to be and so this production will be timely and is bound to be greatly appreciated.

Dr. H. K. Sen, Indian Lac Research Institute, Namkum, Ranchi :—

I read with very great pleasure and profit your ' A Plan of Provincial Reconstruction ' (as illustrated by Bihar). I agree so entirely in the essentials that I refrain from making any observations on minor details. In the section on industries, so well written and comprehensive, it strikes me if it would not

have been better if the sequence of developments were emphasised. In this connection a few points may be considered.

The cottage industries of India died out since machines came into competition and consequently large-scale out-put and lower cost of production were not developed. The reason for this again is the absence of combination of ' power ' to cottage industries. Hence provision of power is the first essential. When clear power, electrical or otherwise, is available, small-scale industries would gravitate towards suburban areas where particular raw materials are in abundance. This would entail a large demand for small-scale machines like disintegrators, hydraulic presses, roller mills, oil-mills, rice-mills, etc. In the absence of an engineering industry in the country, large quantities of such machinery will have to be imported. Even as it is, in so far as there is a development of industries without any plan or special aid from the Governments, import of small machinery is increasing.

Further, many of *the* existing industries depend for their successful operation on

workshops where spare parts could be fabricated or repairs carried out. The cement and sugar and other industries of Bihar would even now be making in their own small workshops or importing from abroad many parts which could be cheaply fabricated on a mass production scale in this country.

Thirdly, an electrification scheme of large dimensions would necessitate the outlay of capital on turbo-generators, transformers, switch-gear, poles, wires, wire-ropes, etc. etc. To a considerable extent, many of these could be manufactured in this country.

The point, therefore, is that immediately a central workshop and machine manufactory should be started near about Jamshedpur which will first concentrate on the manufacture of the requirements of the electrification scheme, as far as they could be manufactured in this country. It may be a Government workshop just as in the case of a few large industries, viz., Government Telegraph Workshops, "Mysore Government Electric Factory, Railway Workshops at Jamalpur etc. They should also concentrate on the

manufacture of small electric motors and pumps, corn-crushers, chaffcutters, oil-ganies, sugar centrifugals, etc., etc. The further developments in machine and machine-tool manufactures could be left to private enterprises in course of time.

The dye-stuff and fine chemical industry has got an assured market in India. Coal-tar is available in large amounts at Jamshedpur and certain coke-producing collieries. The necessary technical experts for the top may have to be recruited in the beginning, but a large number of junior technical men are already available in this country. The heavy chemical industry which should be started immediately, as acids, alkalis and salts are absolutely essential for all industries in general, and its special importance in agriculture by supplying fertilisers cannot be overestimated.

May I congratulate you on the work.

**Dr. M. N. Saha, Professor, University
College of Science, Calcutta :—**

The book deals with a topic which is extremely important for reconstruction of our

national life, and in its setting, every item has been put in the proper perspective.....

I gather, however, from a cursory glance that you set as the objective behind your views of national reconstruction, *a far better standard of living for the people than we have at present.* It is also admitted that the present pressure on the land is too much. At present, about 70 per cent of the people are actively engaged in cultivation of soil. According to the scheme proposed by you, not more than 50 per cent should be actively engaged in agriculture. If the ideal is to be given effect to, we have to find out work for the remaining 20 per cent of the population, i.e., nearly for 5 million people. This can be done only by creating more work of industrial type.

I take this opportunity of congratulating you again for such a very lucid presentation of the complicated subject, which is sure to serve as a pointer.

I would like to see your schemes translated into action as soon as possible and with as much vigour as possible under the present circumstances.

