

ELEMENTARY
INDIAN ECONOMICS
FOR INTERMEDIATE STUDENTS

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FOREWORD.

It has become rather conventional on one's part to offer an apology in presenting a new book to the public. There is so much paucity of suitable books on Indian Economics that no explanation is really needed for adding one to the existing literature. There are certain special features of the book. There is nothing technical in it and economic matter has been presented in an extremely popular form. Certain new chapters have been included in the book which have so far received scant attention from other authors, for instance, those on Power, Growth of Population, Buildings and Machinery, Mobility of Capital and Scope for Business Enterprise in India.

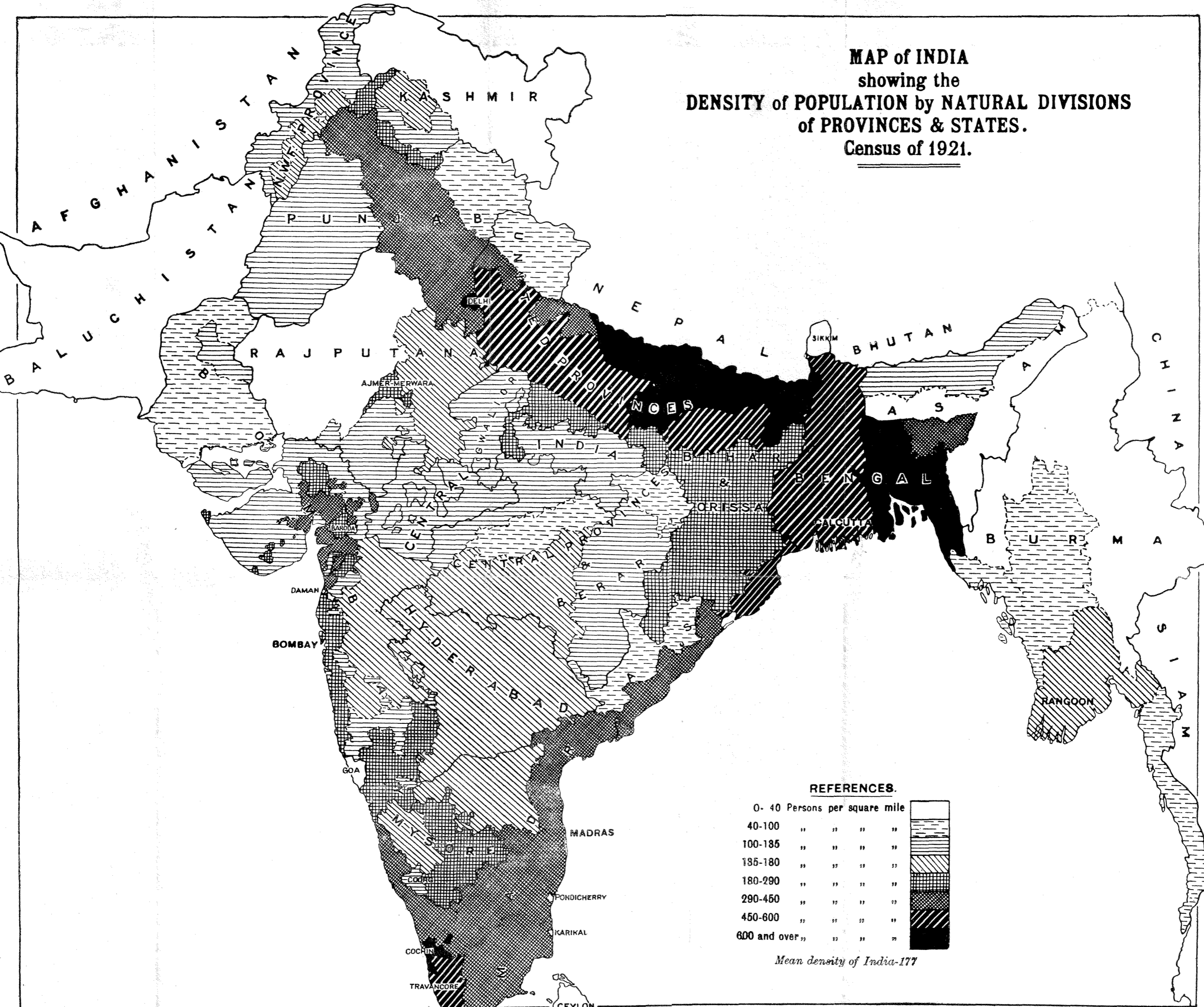
A number of maps representing various economic conditions in India have been incorporated in the book.

The book has been written at the repeated requests of my students. And if it succeeds in fulfilling a part of their requirements and in creating an interest in laymen in the study of Indian Economics, my labour will be amply repaid.

MEERUT COLLEGE :
February 15th, 1927.

DORI LALL DUBEY.

MAP of INDIA
 showing the
DENSITY of POPULATION by NATURAL DIVISIONS
 of PROVINCES & STATES.
Census of 1921.



REFERENCES.

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450-600 " " " "	[Solid black]
600 and over " " " "	[Dense diagonal lines /]

Mean density of India-177

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CHAPTER I.
INTRODUCTORY.

The aim of human life is the achievement of happiness. In obtaining that happiness, material well-being plays the most important part. Material well-being is the result of greater wealth-production and high standard of living. Wealth-production requires resources. Those resources are men and materials. The countries that are well-equipped in respect of these resources for wealth-production, enjoy material prosperity in an abundant measure. Man actively works upon materials, in order to satisfy his requirements. Those materials are partly the gifts of Nature and partly the result of human effort. The human factor has assumed greater importance in modern times on account of the mastery that man has obtained over Nature with the aid of Science. Man

not only performs the executive work in wealth-production, he, in fact, directs the whole forces of production. The various factors that assist us in the course of production have been divided by the economists into four: (i) The gifts of Nature or land; (ii) Artificial aids or capital; (iii) Executive work done by man or labour; (iv) Direction of the forces of production or organisation.

LAND.

One of the primary factors of production is land. A layman would understand land to mean surface of the earth, soil or cultivable land. But in Economics the connotation of the word "land" is wider. The word includes the whole of animate and inanimate Nature (exclusive of human beings only), which is of some help in the process of production. Thus, it not only includes the agricultural land, but also the whole of the materials and the forces which Nature provides for man's aid in land, water and air, including such things as wind or water power, mountains, rivers, falls, seasonal variations of temperature, rains, coastline, heat and light. Some people prefer to call this factor of production as Nature. But the use of the word land has become rather conventional in the above sense, in the study of Economics.

As soon as we get an idea as to the meaning and scope of the word land, the very first question that arises in our mind is, as to how land facilitates the

task of man in his effort for creating a livelihood. The discussion requires us to give a definite place to land in the process of production. Besides giving us free a number of such things as air, water, seasons, varying temperature, and many other things which are necessary for our very existence, which every one daily and abundantly uses, but which are the property or monopoly of no one individual or society, land has given us plenty of space for carrying on all our activities, economic activities being included. Some old and advanced countries in modern times experience much difficulty in finding the necessary room for fresh fields of enterprise. Land is not only required for residence and habitation, but also for starting factories, constructing railways and canals which help man so much in the production of wealth. Then, this Nature or land does not smile equally on all peoples. There are countries like Scandinavia which are mountainous and rocky, and cannot grow things only by tilling the soil. There are on the other hand countries like the United States of America, Canada, or India, whose soil is very fertile and contains the necessary ingredients for the purposes of carrying on agriculture. Some qualities of land are natural, and they thus render all those lands in which they are found suitable for cultivation. In addition to all these advantages to production from land, there are many things over and below the surface of the earth which a man can obtain by making a little effort, such for instance as fish and pearl in water; many drugs and herbs, stone and wood

on mountains; metals, coal, petroleum, etc., from below the surface of the earth. Last of all, the huge animal kingdom is also given by Nature for utilisation by the superior species.

CHARACTERISTICS OF LAND.

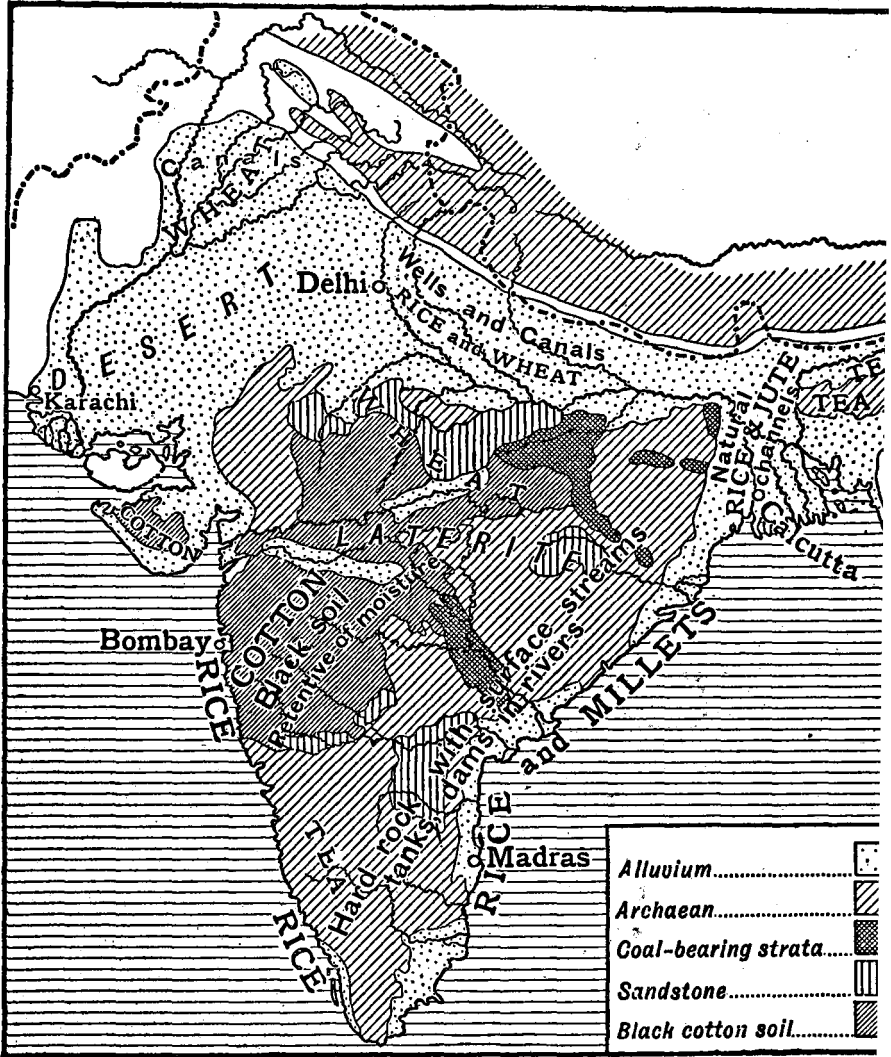
From what has been said above, it would be found that land is necessary for production in many ways, and yet it is impossible for man to increase the amount of available land, or the extent of natural resources available for man's use. He actively works upon those resources and turns them to the best account. Some of those resources are consequently exhausted, but land as a whole remains substantially the same. The fact is, that Science enables us to discover new hidden resources of Nature, which serve us as substitutes for the old ones. The second important feature of land is, that while personal transfers of land are a usual feature in human society, to the society as a whole land is given by Nature without any cost. There cannot be any additions to it, there cannot be any subtractions from it, even if the society is willing to spend some effort for it. It is this non-extensive or non-expansive character of land in which it essentially differs from capital or labour—those other factors of production, the supply of which can be increased according to the requirements of demand. This limiting character of land has led to the cropping up of important problems in connection with land between different

individuals in a country and between one country and another. Not only charges are made for the use of well-situated or fertile or mineral wealth-possessing lands in the shape of rent and royalties, but the shortage of land in well-populated countries has resulted in bringing to the front the question of high rents in the towns, extensive and intensive cultivation in the rural areas, and the problems of land tenures. In the international sphere, the seeming shortage of Nature's resources has led to the scramble among different nations for the possession of new lands and colonies and places containing rich mineral deposits. An attempt is made in that sphere to maintain control over high seas and big oceans.

EXTENSIVE AND INTENSIVE CULTIVATION.

When large tracts of cultivable land are available for cultivation, and they are cultivated very superficially with an expenditure of a very small amount of labour and capital, we regard such cultivation as Extensive Cultivation, just as we find it in Australia where the population is small and the land is plenty. On the other hand, when the supply of land is comparatively scarce, people have to devote a larger amount of time, money and energy to their small holdings, if they want to increase the yield from the land. This is called Intensive Cultivation. The result, so far as production is concerned, is in both cases the same, namely, a large yield; but while in the former case it is

obtained with a large plot of land and small amount of labour and capital, in the latter case it is obtained more with the help of labour and capital and less with the help of land.



CHAPTER II.

NATURAL RESOURCES OF INDIA.

In judging the material resources of a country, economists and industrialists take three things into consideration: (i) food products, (ii) raw materials for industries, and (iii) motive power. But this division not being very scientific, we shall examine the productive powers of natural agents in India in the light of the five kinds of services that Nature in any country of the world is capable of rendering.

According to the definition we have given to the word land in Economics, an account of the equipment of Indian land for production shall include a reference to the geographical position of the country, its physical structure and the consequent advantages accruing to the people from the above in the shape of rivers, mountains, climate, rainfall, seasons, water or wind power, soils, forest, marine and mineral wealth, habitable land and animal kingdom. The physical importance of each of these factors is a proper subject for discussion in a treatise on Geography. We shall discuss them here only according to their importance in relation to economic welfare of the inhabitants of this country.

India's nearness to the Equator and its situation just in the north of the big Indian Ocean, from which strong vapour-bearing winds periodically start, and the system of its mountain ranges are mainly responsible for many of the amenities of life that we get as gifts of Nature, such as rains, variety of climate, different seasons and a large supply of perennial rivers feeding our canal system. Other important natural sources of wealth in India are its fertile soil, forests, mines, sea, and water-power resources. Thus, the direct and indirect effects of the physical environment of the country on our agricultural, industrial and other productive activities are very great. Some of the above features only help in increasing the productive capacity of the working factors, while others directly give us a variety of products. The net result to the community as a whole is, that it gets a large, a very large supply of both directly consumable and producers' goods which are not only utilized in this country, but also leave a surplus for exporting purposes.

CLIMATE AND SEASONS.

The climate of a place, says Morrison, depends upon five things: (*i*) distance from the Equator, (*ii*) height above sea-level, (*iii*) nearness to the sea, (*iv*) direction of mountain ranges and consequently the direction of heavy winds; and (*v*) the nature of the soil. Judging from these tests, India would be found to be possessing all types of cold, hot and wet climates.

Broadly, however, the country may be divided into two areas for a study of its climatic features: (i) Northern India plains, and (ii) The Peninsular India. The former region is subject to great variations in climatic conditions in different parts of the year. It is extremely hot in summer and very cold in winter. It is not so in the case of the Peninsular region, where seasonal variations are comparatively little.

The bearing of climatic conditions on the economic welfare of a people is very great. The amount of wealth ordinarily sufficient for maintaining a man in a state of working efficiency, differs in different climates. In Northern India, for instance, in the summer months a scanty amount of clothing and a very plain type of food will suffice. The same amount of clothing or food cannot suffice for an English labourer in any part of the year. Climate thus has an important influence on consumption and the standard of living. Severe climates and a high standard of living stimulate productive effort, and persons living in countries like England have to make a great effort in order to maintain themselves in a state of efficiency. Temperate climate is very suitable for the development of industries. Extreme climates in this country are, therefore, sometimes pointed out as a check to the development of our industries on a very large scale. The effect of climate on the health and physique of the people is no less. Hard work and severe strain are very injurious under our climatic conditions, and there are certain tropical diseases which are very much

peculiar to India, which sometimes take a heavy toll from our population.

It would thus be found that climate affects all the three factors of production, *i.e.*, (i) the human factor, (ii) the productive capacity of agricultural land, and (iii) the productivity of at least some forms of capital. Climate, in fact, affects the whole production. The Indian climatic conditions comprising, as they do, different kinds of seasons, good sunshine and an abundant supply of rains, in many parts of the country enable a variety of agricultural and other tropical commodities to be obtained from the land.

RAINFALL.

Rains form a very important feature of the Indian climatic conditions. Their economic value to this country is very great. They are not only responsible for our large agricultural produce, but a major portion of our foreign trade, the income of the government, internal peace of the country, in fact, the general prosperity of the masses depends upon a favourable monsoon. The amount of average rainfall in India is 45 inches in a year. Rainwater is deposited in the Himalayas and the jungles and the *tarais* below, and thus our Northern India rivers are kept perennial. Lands in India are very dry, slightest blowing of the western winds during the rainy season dries up the fields and makes the agriculturists nervous. Rain, therefore, is needed to bring them moisture again and

again. The productivity of our soil in most cases depends upon the seasonal rains, for the atmosphere just above the surface of the earth is supposed to contain certain chemical substances, which are brought down to the surface of the earth with the help of the rains. Rains are thus an important source of irrigation, and decrease our dependence on the artificial means of irrigation. Apart from all these things, rains have another important economic feature about them. The delay in the breaking out of the monsoon, or total or partial failure of the seasonal rains, sometimes results in the wide prevalence of epidemics in the country.

Two Monsoons.—We get 90 per cent. of our rains during the months of June, July, August and September by the two systems of Monsoons which bring rainfall to the Northern and Southern regions of the Indian Peninsula. The Arabian Sea monsoon gives rains to the Western Ghats and the southern tableland. A part of the vapour-laden clouds not checked by any mountains on the way comes to the Himalayas. The Bay of Bengal monsoon gives rain to Burma, the Brahmaputra and the Indo-Gangetic valleys. Cold weather rains in parts of Northern and North-Western India are due to cold winds from the north-west. The distribution of rain in different parts of the country would appear from the annexed map.

SOIL.

Unless we have a good soil, mere climatic conditions and a good supply of rain water cannot do much. Cherapunji in Assam gets the highest amount of rainfall in the world, but is not at all known for its fertility or productivity. And this brings us to the importance of soil in India. The country is predominantly agricultural. From the point of view of its fertility for agriculture, the Indian soil has been divided into two essentially different sets:

(1) The Northern India plains are a level country formed for the most part of a very deep alluvial soil. The top-soil varies in texture from sand to clay, the greater part being light loam, porous in texture, easily worked and naturally fertile. The great depth of the alluvium keeps down the soil temperature. This soil is supposed to be naturally very rich in the plant-nourishing food, and is consequently very good for our *rabi* and *kharif* crops. Level plains, moreover, have enabled the easy construction of railways and a network of canals. Wells also can be easily sunk. But the most important advantage from the level character of the plains is, that they facilitate a more even distribution of rainfall in Northern India, having no barriers to check the flow of the monsoon currents.

(2) The Southern India peninsular earth surface is made up of hills and river valleys. Hilly tracts are naturally unsuitable for cultivation. Some highlands are very hot. Not quite so alluvial as in Northern India, the river valleys, however, possess important attributes which make them very suitable for agriculture. The black cotton areas are included in them. The soil in the valleys is deeper, cooler and moisture-retaining. In the rains, some of these tracts become sticky, in the dry weather hard and crumby, holding the moisture at lower levels. Millets and pulses are very well grown in slopes. Thicker, dark-coloured and more fertile valleys are rich in chemical properties favourable for plant life, and are very suitable for cotton, wheat, linseed and other *rabi* and *kharif* crops.

The rest of the Indian soils cannot be grouped under any one head. Lowlands are sufficiently fertile and grow products like rice. But some other places are very dry and need rain, and therefore lie fallow on account of their infertility.

AGRICULTURAL PRODUCTS.

The purpose that Indian soil serves is threefold. It gives us (i) a large quantity of food-stuffs, a major portion of which is consumed in the country; (ii) raw materials which form the basis for the starting of industries in the country; (iii) a large exportable surplus, in return for which we get other things for

our consumption. The following table shows the area, yield and export of important Indian agricultural crops (1919-20):—

Crop.	Million Acres.	Yield.	Exports.
Rice	... 79'4	32 million tons.	1'1 million tons.
Wheat	... 29'9	10'12 million tons.	'237 million tons.
Cotton	... 23'3	5'34 million bales.	Raw, '429 million tons. Yarn, 151 million lbs. Cloth, 196 million yds.
Jwar	... 22'4
Oil-seeds	... 14'8	2'84 million tons.	...
Bajra	... 14'5	' ...	7,716 tons, includes jwar.
Gram	... 12'6	...	5,190 tons.
Barley	... 7'4	...	1,656 tons.
Maize	... 6'6	...	829 tons.
Jute	... 2'8	5'9 million bales.	Raw, '591 million tons. Bags, 342 millions. Cloth, 1,275 million yds.
Sugarcane	... 2'7	3 million tons.	

The important points to be noted about the food-grains in India are, that in normal times a considerable export both of rice and wheat takes place, but not

more than 7 per cent. of the rice crop and not more than 10 per cent. of the wheat crop is usually exported. Barley is also exported in appreciable quantities for industrial purposes. Other cereal crops are mostly consumed in the country, pulses forming an important part of the dietary of all classes of persons, and the other food-grains being used by the lower strata of society.

Among the non-cereal food-crops the case of sugarcane is peculiarly important. India possesses nearly half the area, under cane, of the whole world. It not only consumes the whole quantity of raw and refined sugar produced in the country, but also imports a large quantity of foreign sugar. In the year 1919-20 the total imports of sugar amounted to $4\frac{3}{4}$ lakhs of tons, valuing at about 23 crores of rupees.

Among the non-food-crops, cotton, jute and oil-seeds occupy by far the most important position. Of our cotton, nearly half is exported in raw form to foreign countries, the most important of our customers being Japan. Although the cultivation of long-staple cotton is encouraged by Government, the short-staple cotton so far holds the field, and its surplus quantity is exported. The Indian cloth-supply is only half of our total requirements, and that even of a rough quality. The other half is supplied by the foreigners, mainly by Lancashire, from where finer qualities of piece-goods are imported into the country. The imports of cotton piece-goods into India in the year 1920-21 were 1,511.5 million yards, valuing at $88\frac{1}{2}$ crores of

rupees; and of twist and yarn in the same year 47.3 million lbs., valuing at 13.5 crores of rupees.

If our cotton is important to our consumers and clothes half of our population, jute is commercially the most important of our fibre crops. Its production is confined to Bengal, which holds a virtual monopoly of world's jute supply. About half the crop is manufactured in the country, enough to cover its internal needs many times over. The total value of the exports of jute, both raw and manufactured, in the year 1920-21 came to about 70 crores of rupees (53 crores manufactured and 16.5 crores raw). Of other fibre crops such as hemp, flax, and silk, there is no organised manufacture in India.

Another important crop of India from the point of view of export is oil-seeds. Oil-seeds cover a very large area under crops in India. A very large proportion of the produce is exported, much of the balance is crushed either by small power-plants or in country bullock-mills, the latter of which are very inefficient in oil extraction. In the year 1919-20, some 8.25 lakhs of tons of seeds were exported for the value of 26.25 crores of rupees.

Other items in the agricultural wealth of India are drugs and beverages, such as tea, tobacco, opium, coffee, indigo, and cinchona. India supplies some 40 per cent. of the tea to the world's markets. In 1919-20, tea exports amounted to $20\frac{1}{2}$ crores of rupees. Tobacco is largely grown, but still a large quantity of cigarettes is imported into the country (worth about

3 crores of rupees). Opium is largely grown for export, whose value comes to over 2 crores of rupees annually (11,250 cwts. annually). Indian coffee is also exported to the value of about $1\frac{1}{2}$ crores annually. Indian indigo crop has heavily suffered on account of the imports of cheap synthetic dyes from abroad. We are not self-sufficient so far as our supplies of quinine are concerned, and have to import quite large quantities of quinine from other places.

Besides the above important agricultural products, we get from our soil quite large quantities of fresh vegetables, fruits, spices and many such things as are very important from the view-point of our local consumption.

MINERALS.

Although agricultural products occupy the most pre-eminent position in the wealth of India, the importance of Indian minerals is also very great. The mineral deposits of the country are said to be sufficient for maintaining most of our key industries. Our metallic ores are very rich and of a very high quality. But they are not locally worked, and are largely exported. India's dependence upon foreign countries for her supplies of iron, steel and other metallic manufactures indeed is very great, considering the fact that mineral resources for the same are available in the country. The total value of minerals came to about £27.5 million in 1925. The

value of coal produced was £9.5 million, of petroleum £7.77 million, of manganese £2.6 million, of gold £1.67 million, of lead and lead ore £1.66 million, of mica about £8 lakhs, and of silver over £7 lakhs.

Important mineral products are distributed as follows:—

Coal.—The distribution of coal is very uneven in India. Total production of coal in 1923 came to about 20 million tons in India, out of which about 18 million tons was from the Bengal and Bihar collieries. The chief coal-fields of Bengal and Bihar are Raniganj, Jheria, and Giridih. The total value of coal mined amounted to $14\frac{1}{2}$ crores of rupees. In the same year we imported over 6 lakh tons of coal and coke, valuing at over $33\frac{1}{2}$ lakhs of rupees.

Salt.—The manufacture of salt is a monopoly of the Government in India. The total supply of salt in India from all sources, including evaporation from the sea, the Sambhar lake supplies, and the salt dug out of the salt-range mines in the Punjab, came to over $17\frac{3}{4}$ lakh tons in the year 1923. A quarter of it was got from all the sources in Northern India, another quarter from the Madras Presidency, less than a quarter from Bombay and Sind, and the remaining quantity was manufactured in other parts of the country. Bengal imported its salt. The total value of salt came to about 1.12 crores.

Gold.—The total amount of gold mined in India in the year 1923 was about $4\frac{1}{4}$ lakh ounces, valuing at

about 2.55 crores of rupees. 1,519 ounces came from Madras, 12½ from Hyderabad and the major portion of 420,669 ounces came from the Kolar goldfields in Mysore.

Petroleum.—The production of petroleum is mainly confined to Burma, Assam and the Punjab. In the year 1923 over 294 million gallons of petroleum was produced in India. Burma contributed over 271 million gallons. The rest came from the Punjab and Assam, each contributing over 11 million gallons. The chief oil wells in Burma are Yenangyang and Yennangyat. The quantity of imported mineral oil in the same year was 169 million gallons, valuing at 8.3 crores of rupees.

Saltpetre.—India at one time possessed a practical monopoly in the supply of saltpetre, which is found in the plains of Bihar, the United Provinces and the Punjab, and is extracted and refined by indigenous methods. The total production was about 1½ lakhs of cwts., in the year 1923 valuing at 21 lakhs of rupees.

India also takes the first place in the list of mica-producing countries of the world. The Bihar mica is of the highest grade so far, and is raised in large quantities. The total produce in the year 1923 came to over 33,000 cwts., valuing at over 15¼ lakhs of rupees. The total amount of iron ore mined in the year 1923 was over 8 lakh tons, valuing at about 20½ lakhs of rupees, Bengal and Bihar alone contributing 9/10ths of the whole production. Among other

mineral products are chromite, copper ore, diamond, graphite, iron ore, jadestone, lead, magnesite and manganese ore. The production of the last in the year 1923 was valued at a little less than $3\frac{1}{2}$ crores of rupees. It is exported in a raw state to foreign countries. Besides these, we have good qualities of both sand and lime existing in different parts of the country for the starting of the glass-blowing industry.

FORESTS.

Forests are another important form of natural wealth. The importance of forests in the economy of an agricultural country enjoying the benefits of monsoons is very great. It has been said that a certain percentage of forests is absolutely necessary in an agricultural country. Forests are advantageous to us in many ways. They retain moisture, prevent flooding of water, and erosion of the soil, and keep the average temperature moderate. The Indian forests are very useful inasmuch as they give us a number of forest products, such as timber and other building materials, grass, fuel, lac, caoutchouc, resin, wood pulp for paper manufacture, tanning materials and many other products. The total exports of forest produce amount to much over 10 crores of rupees annually. In the year 1923-24 lac of all sorts was exported to the extent of over 9 crores, raw rubber 1 crore $14\frac{1}{2}$ lakhs, and gums and resins to the extent

of over 12½ lakhs. Teak, sâl, deodar, pines, sandalwood, ebony, bamboo, palms and many other well-known trees grow in the Indian forests. In all, about 2,000 species of soft and hard trees are found in India. The total exports of wood and wood manufactures amounted to 1,27 lakhs of rupees in 1923-24.

Forests in India are the property of the state, and yield a considerable net revenue to the Government, after meeting the expenses of the forest department. It has been only recently, that the true importance of the forests in the economy of the nation has begun to be realised. For administrative purposes forests in India are divided into three classes—reserved, protected, and unclassified, according to the degree of control exercised by the Government on forests. The control exercised by the Government on the reserved forests is complete. They are maintained in an efficient condition in order to yield products and serve other functions. In the case of protected forests, however, private communities have also got the privilege of access for beneficial purposes on certain conditions. There are small restrictions, however, in the case of the unclassified forests. The total area under all kinds of forests in British India—reserved, protected and unclassified—is about a quarter of a million of square miles, two-fifths of which is reserved. Forests in Burma alone have more than half of the total area under forests in British India. Assam has a forest area of over 21,400, followed by C.P., which has a forest area of 19,600 square miles. The percentage of forests to

total area in British provinces came to 20.3 in 1923-24. Timber and fuel got from these forests amounted to about 354 million cubic feet, and the value of the minor products came to over 1,48 lakhs of rupees. The total amount of gross revenue yielded from the Indian forests was about $5\frac{1}{2}$ crores, the total expenditure came to about $3\frac{1}{2}$ crores, leaving a surplus of revenue of a little less than 2 crores of rupees annually.

SEA PRODUCTS.

The importance of sea and inland waters for trade routes has very much increased in modern times. But these waters also yield some important products, the most important of them being the fish. There are some countries of the world, where fish serves as the staple food of the population. In our own country, $1\frac{1}{2}$ million of the population depends upon fishing for its livelihood, according to the census of 1921. Fish provides a delicious and a very nutritious type of food. Salted or canned fish can be preserved or exported to long distances. Fish also gives us raw materials for such industries as oil and glue. Then, fish manure is one of the best forms of scientific manures. Many kinds of fisheries are found in India. Investigations conducted in Madras and Bengal about the possibilities of the development of fisheries in India have revealed the significant fact that a very large supply of food can be obtained from this source. Fishing can be practised in India in inland waters, estuaries of rivers,

and along the sea-coast. Indian coasts are said to be very suitable for certain types of fish-breeding, and fishing can be practised for the major portion of the year. The possibilities of the development of fisheries may be judged from the fact that the towns of Madras and Calcutta alone are annually supplied with fish to the extent of 4 million maunds, and over $4\frac{1}{2}$ lakh maunds, respectively. The fisheries can be made to yield large amounts of revenue to the provinces in which they are found. The Burma Government already draws a revenue of about 30 lakhs of rupees annually from its fisheries. In inland waters, various causes, such as the use of certain types of nets and traps, and emptying of irrigation channels, have had a most injurious effect on both the quality and quantity of the fish obtainable. Among other sea-products may be included such other things as pearl, coral, shell and other minor products, the quantity of which obtainable in India is small.

ANIMAL KINGDOM.

On account of the particular climatic conditions of this country, many kinds of animals belonging to the tropical and sub-tropical regions are found in this country. But the most important of them are domestic animals kept for (i) agricultural purposes, (ii) milk and its by-products, (iii) meat, and (iv) transport. Domestic animals also yield dung and farmyard manure, which are so necessary for fertilising the fields.

For agricultural purposes, bullock and buffalo are the most important. Cow, goat, sheep and buffalo are kept mainly for milching. Goat and sheep also yield wool. Horses, ponies, asses, mules, camels, sometimes also elephants, were old means of transport. On account of the possession of such large numbers of cattle, India is able to command a large export trade in hides and skins, the value of which came to 23½ crores of rupees in 1919-20. It has fallen to some 13 crores of rupees annually now. Our hides and skins mainly go in an unmanufactured state to many countries of Europe, particularly to the United Kingdom. From Madras, however, they are exported in a slightly tanned condition.

The present breeds of domestic animals in India are poor. Their capacity for heavy drafting and milching is also very small. Sheep and goat in India are kept for milk, meat and wool. Other important by-products of animals are horn, fat, and bones, which, also, are exported to foreign countries. The following is a summary of the cattle census of India taken in 1919-20:—

Classification of Livestock in India.

(000 omitted.)

Classes.	British Provinces.	Indian States.	All India.
<i>Oxen—</i>			
Bulls	... 5,618	1,467	7,085
Bullocks	... 43,318	9,081	52,399
Cows	... 37,083	9,280	46,363
Calves	... 30,717	6,423	37,140

Classes.	British Provinces.	Indian States.	All India.
<i>Buffaloes—</i>			
Bulls	... 5,437	1,038	6,475
Cows	... 13,312	3,826	17,238
Calves	... 9,618	2,184	11,810
<i>Others—</i>			
Sheep	... 22,075	12,499	34,574
Goats	... 24,294	6,276	30,570
Horses	... 1,696	5,012	2,008
Mules	... 75	6	81
Donkeys	... 1,371	33	1,404
Camels	... 409	118	527

The last cattle census of India was taken in 1924-25 and altered the figures regarding British India in the following respects:—

There were 151 million heads of bovine cattle (*i.e.*, oxen and buffaloes) in British India Proper. This figure represents an increase of 4 per cent. over the last census of 1919-20. Oxen accounted for an increase of 3 millions and buffaloes 2 millions. The number of bulls fell mainly in Madras, but bullocks increased chiefly in Madras and Bihar and Orissa. The number of cows increased almost in every province, except Madras and the Central Provinces, the largest increases occurring in Bengal and Bihar and Orissa. The number of male buffaloes also fell, but cow-buffaloes increased by a million, chiefly in the United Provinces. Sheep now total 23 millions, and goats have increased to 39 millions. The total number of horses and ponies was about 2 millions, of mules

70,000, of donkeys 1.4 millions and of camels over half a million.

Among other important things taken from the animal kingdom, may be included a number of fowls which provide food in the shape of meat and eggs.

CHAPTER III.

NATURAL RESOURCES OF INDIA

SOURCES OF POWER.

From a very early stage of our civilization, man has felt the necessity of requisitioning into service external aids, in order to help him in the course of his economic activities. Thus, from times immemorial we have been accustomed in this country to the use of cattle for many such agricultural purposes as the drawing of ploughs and carts, lifting of water from the wells, carrying of loads, crushing of cane and seed, threshing of grain, and to the performance of such other forms of productive activities which were found to be beyond the physical capacity of the man single-handed. As Science has made progress and civilization has advanced, man's control over Nature has been more and more supreme, and he has harnessed the forces of Nature into his service. Heavier, gigantic, and more complicated tasks, which no group of men or animals could undertake, have been satisfactorily done by the use of motive power or energy. Power really means any kind of force, but in modern times the word, however, is used to stand merely for such mechanical energy as is used for driving engines and machinery. In fact, mechanical energy is now so extensively used, that the use of cattle as a source of

power has completely dwindled into insignificance. The total H.P. used in various countries of the world for all purposes including railways, factories, shipping, light, etc., has been estimated to come to 12 crores of H.P. Of this, the total power supplied in India from all the sources is estimated at 12 lakhs H.P., about a fourth of which is electric H.P., including about 36 per cent. of water-power electrical energy.

Power is the fuel of the productive furnace. The supply of cheap fuel in a country is important for the rapid promotion of industries, development of transport facilities, for lighting cities and towns, for coal-mining, ore-refining and for several other sundry purposes. Cheap motive power is one of the secrets of successful industrial development, and it is worth our while to study, how far India is gifted by Nature in respect of power resources. The distribution of the natural resources of a country for generating energy mainly determines the establishment of industries in particular places. This is particularly true of those industries, in the case of which the cost of fuel for power and heat largely enters into the cost of production of the finished commodity. The countries of the world supply their power mainly from coal, wood-fuel, oil, alcohol, wind and water. The coal has occupied a pre-eminent position so far, and has determined the establishment of industries in coal-mining regions. "It is true that the coal-fields are the regions where manufacturing is most largely carried on, and consequently they are densely populated. Towards the end

of the 19th century, the application of electricity to industries became important. Electricity is not an additional source of power, it is a new means of making available already existing sources. By some power such as of falling water or an engine driven by coal, coal-gas, or oil, a machine called an electrical dynamo produces an electric current. This current can be utilised in many ways: it serves to transmit messages by telegraph or telephone, it is used for lighting purposes, it is employed to extract metals from their ores, or it causes a wheel to revolve an electric motor which can work any kind of machine. Since the current can be transmitted through a wire for many miles at very small cost, the power from water or from coal is used to work a dynamo at the place where it is obtained; the current thus produced is cheaply distributed to surrounding points, or transmitted to a distance, and so made to work machinery at places which may be far from the water or coal.

“Consequently the application of electricity has had two important effects upon the distribution of industries; it has tended to disperse manufacturing from the immediate vicinity of the coal-mines and to aid the establishment of works in regions well supplied with water-power, which could not previously compete with steam for quickly working machinery. Mountains well supplied with water and once glaciated regions, where the rivers have numerous rapids, are, therefore, tending to rival coal-fields as industrial centres.”

The above extract relating to conditions in advanced countries gives us an idea as to how electrical energy is produced by coal-gas or water, and how by wire it can be transmitted to distant places, and how the use of water-power energy has tended to shift the industries to water-power centres. The use of electrical energy in India is as yet undeveloped. Coal is still the most important source of power in our country. Let us now discuss the position of this source of power in this country.

Coal.—Coal is not only the most important source of power, but also the most important mineral product of this country. Its production has been steadily increasing. From 2 million tons in 1890 it has come to over 20 million tons to-day. Most of it is obtained from the Gondwana system, lying between the Deccan tableland and Bengal, including in it parts of Bengal, Bihar and Orissa, Central Provinces and Hyderabad. The principal mines of India, namely, Jheria, Raniganj, and Giridih are situated in this system, which produces about 95 per cent. of the total output. An estimate of the consumption of Indian coal prepared by the Industrial Commission enables us to know that over 6 million tons, or 33 per cent. of the Indian coal was consumed by the railways, 16 per cent. by bunkers, 5½ per cent. by the jute mills, an equal quantity by the cotton mills, 5 per cent. by iron and brass foundries and engineering workshops, 3½ per cent. by inland steamers, 20 per cent. by small industries and in domestic consumption, and the remaining amount of 12

per cent. was either spent at the collieries or wasted. Although the production of coal has been increasing, our present produce is only 1/100th of the whole world, 1/30th of the United States of America, and 1/11th of the United Kingdom. There are two drawbacks from which the Indian coal-mining industry suffers:

(i) Indian coal is very unevenly distributed. The deficiency of coal is specially noteworthy in the case of Madras and Bombay. On Bombay side it is cheaper to import coal from abroad than to use Raniganj coal. Imports of coal from South Africa recently, for the construction of the Lloyd Barrage in Sind, evoked a protest from the Indian coal industry which was suffering from over-production, and the Indian product did not easily find a market. Recently some special steps have been taken by the Government, in order to encourage the exports of Indian coal to foreign countries, and freight rates of railways on the traffic of coal have been reduced by 10 per cent. in order to encourage the local industry. India both exports and imports small quantities of coal.

(ii) Another drawback of the industry is that the Indian coal is poor in quality. High quality coal yields important bye-products such as gas, tar, oil, benzol, naphthalene, creosote, ammonia, carbolic acid, tolnol, dyes, fertilisers, disinfectants, explosives, and numerous valuable drugs as saccharine, aspirin, phenacetin, antipirin and a dozen others.

Water.—Water-power or hydro-electric energy is fast becoming a serious rival to coal in India. The possibilities of hydro-electric development in India have recently been revealed by the reports of some special officers appointed by the Government of India to enquire into the subject on the recommendation of the Indian Industrial Commission. So far as our potential water-power resources are concerned, we occupy the second position in the world. The United States of America easily heads the list, as she does in the case of most other resources.

Our potential hydro-electrical energy is estimated to amount to 27 lakhs of H.P. Much more than that, it is stated, can be developed. But the above figure excludes the probable sources. Out of all this, only about 150,000 has so far been developed. The most important water-power plants have been constructed in Bombay, Mysore, and Kashmir. The Cauvery works in Mysore, with a capacity of about 25,000 H.P. mainly used in the Kolar gold fields, and the Tata hydro-electric works in Bombay, which are at present supplying about 40,000 H.P. in Bombay (equal to the energy produced by the consumption of 600 tons of coal per day) out of a total of about 100,000 of mechanical energy that she requires for running her mills and factories, are the pioneer hydro-electric works in India. Both the schemes are capable of further development. Hydro-electric development is taking place in almost all parts of the country. But there are two main difficulties to be encountered:

(i) The initial cost of installation is very heavy. In some cases, even the cost of transmission also becomes very heavy owing to vast distances. (ii) The second difficulty is that of securing adequate consumption before many promising schemes can become successful. Still, water-power, its distribution in different parts of the country as shown in the annexed map and its transmission by electricity, offer immense possibilities, both as regards the quantity available and the cheapness at which the power can be rendered available in all parts of India. In Bihar and Orissa the Subarnarekha river offers the prospect of from 30,000 to 50,000 H.P. The Kalinadi with its tributaries in Bombay offers 150,000 H.P. Burma has best possibilities for water-power development, but great distances and difficult communications are a hindrance. The Pan Laung river can produce 40,000 H.P. In the case of the Central Provinces and the Madras Presidency, where promising schemes are found, the advantage is that of situation in close proximity to good markets for the sale of the energy. If a minimum consumption of 80,000 H.P. is assured, the Sutlej hydro-electric project must become successful. In the United Provinces also, promising sources of power are existing within easy distances of such important centres as Benares, Allahabad, Cawnpore, Aligarh, Mirzapur and Delhi. There are many falls in the Himalayas, from which electrical energy can easily be generated. One special feature of our hydro-electrical development can be the utilisation of

this energy for agriculture and small cottage industries, in the surrounding areas of the sources of water-power.

Other Sources.—It is fortunate that India possesses so large possibilities for the development of water-power resources, the generation of power by the consumption of wood-fuel, oil or alcohol being difficult to obtain. Wood-fuel is largely used for domestic consumption. Oil, being a costly mineral, can supplement, but not supplant coal or water, and can be used only in the case of some industries, that can bear heavy fuel charges. No reliable data at the present time exist to correctly estimate the prospects of oil production in India. This form of fuel, therefore, cannot be relied upon to make up the deficiency of our coal supplies. The three main Burma oil-fields of Yaung Yaung, Yaung Yat and Sigu are being rapidly exploited, and no others likely to replace them have so far been proved. The value of wind-power in India is very small, owing to the lightness of prevailing winds except along the sea-coast and on the Deccan uplands. The Indian forests are capable of yielding important supplies of wood-fuel, which can be most advantageously employed, after conversion into gas, for generating power. But the difficulty of transport in the hilly areas, where our forests are mostly situated, and the continuous necessity of replantation to insure a permanent supply of wood, are factors which must be reckoned with before we can place any reliance on the wood-fuel for power to any considerable extent.

CHAPTER IV.

RAW MATERIALS AND MANUFACTURES.

Many raw materials for manufacturing industries are available in India, but the number of modern industries is still very small. We have seen that our agriculture, forests, mines, fisheries and animal kingdom yield large quantities of raw materials for starting manufacturing industries in the country, and are capable of giving much larger quantities for the same purpose. Very small quantities of some of the important raw materials are at present converted into finished goods here in India, and the rest go out of the country in raw form, in certain cases to come again into the country in the form of manufactured goods. We shall here state the cases of a few typical industries in order to show how vast possibilities for industrial development exist in our country.

MODERN INDUSTRIES.

Cotton.—The production of cotton, hand-spinning and weaving have been practised in India from immemorial times. But the factory production of cotton goods dates from the middle of the last century.

The industry has made rapid progress since 1880, as would appear from the following figures relating to the number of mills, persons employed and the looms and spindles used at different periods:

Year.		Mills.	Persons.	Looms.	Spindles.
1880	...	58	39,537	13,307	14,70,830
1913	...	272	2,53,786	94,136	65,95,862
1923	...	333	3,47,380	1,44,798	7,92,79,938

Thus it would appear, that the cotton mill industry has made phenomenal progress in the period of 40 or 45 years since 1880. In the same period the industry made much more extraordinary progress in other cotton-manufacturing countries of the world, particularly in England. In the beginning yarn-spinning developed a great deal. There was an export trade in yarn with China. Now, however, both yarn and cloth are manufactured for home-consumption.

The quality of cloth manufactured in India is coarse and below 24 counts, although counts up to 40 have recently been attempted. Still India is one of the four important cotton-manufacturing countries of the world, the first three being Great Britain, the United States of America, and Germany. Although exports of yarn to China and Japan have been stopped, we have captured new markets in Mesopotamia, Arabia and East Africa. The industry has almost got localised at Bombay, where there are as many as 176 mills, 110 of which are entirely owned by the Indians. War was generally an epoch-making

period in the development of industries in India. But the difficulty of importing machinery during that period prevented further progress. The imports from England during that period received a set-back, and Japan increased her imports of piece-goods into this country. In the year 1913-14 the total imports of cotton manufactures amounted to 66 crores, in the year 1924-25 they amounted to 82.33 crores, or one-third of the total imports. The total amount of cloth produced by the Indian mills came to 1,731 million yards. India gets her supplies of cloth from four sources: (i) Indian weavers, (ii) Indian mills, (iii) Japanese imports, and (iv) British imports. The Indian weavers produce special kinds of cloth, such as *khaddar*, *saries*, *lungies*, and use special lower and higher counts which machines cannot use. The competition of these products with the machine-made cloth is very small. The competition between the second and the third groups of producers, however, is very great, both of whom produce coarser kinds of cloth. Indian mills also enter into keen competition with the British imports in the manufacture of finer counts of cloth. The Indian cotton mill industry is at present suffering from a serious depression and has, therefore, applied to the Government for protection against keen foreign competition.

The total area under cotton in 1923-24 was 230 lakh acres, and the production of cotton nearly 6 million bales. Nearly half the produce is manufactured in the country, and the other half goes out to

foreign countries in raw form. Short-staple cotton is mostly grown in the country, although the cultivation of long-staple cotton is being systematically encouraged. The total of exports of cotton in the year 1923-24 came to 98 crores of rupees, or 28 per cent. of the total exports, the principal consumers of Indian cotton being China and Japan, which took as much as 53 per cent. of the total exports. The United Kingdom took only 8 per cent. of these exports.

Jute.—Jute is our most important commercial product. Jute manufacture by factories also began in the middle of the last century, although hand-spinning of jute is still practised in Bengal. In the year 1923-24, the total area under jute was 2.32 million acres, and total production 8.4 million bales. We are a virtual monopolist in the supply of raw jute, although in manufacturing it, we find that Dundee is our serious rival. Still our jute manufactures are five times those of Dundee, and nearly two-thirds of the total world produce is manufactured in the country. During the war the demand for such jute manufactures as sand-bags, canvas, corn-sacks, hessian and gunnies considerably went up, with the result that they fetched fancy prices. The prices of raw jute on the other hand fell. This gave a special stimulus to jute-manufacturing in India. This industry has also made phenomenal progress. In 1870, the total export of jute amounted to only 5 crores of rupees, in 1918 it amounted to 50 crores. There are now 81 jute mills with 47,000 looms, employing 3.2 lakhs of men, work-

ing with a capital of about 22 crores of rupees. The trade is mostly in the hands of Scotsmen, but Indians have also got large shares in the capital of the joint-stock companies owning jute mills.

Iron and Steel.—The manufacture of steel is regarded as one of the key industries. It is a prerequisite for modern industrial development. Iron ores are found all over the country, but rarely in the vicinity of coal-mining regions. The demand for iron and steel goods and machinery has been steadily increasing. The imports of the same in 1921-22 amounted to 35½ crores of rupees. Pioneer attempts at steel-manufacturing were a failure. Two companies, namely, the Bengal Iron and Steel Company and the Tata Iron and Steel Company have, however, made good progress in the manufacture of steel owing to the war-time stimulus. The former has got its headquarters at Kulti, near Barakar, with mining concessions in the Manbhum and Singbhum districts. The latter was started in 1907, and has a nominal capital of 2.25 crores with rich deposits at Gurumahishani in the Raipur district. Its headquarters are situated at Jamshedpur. Protection was recently given to the steel industry in India, as there is a severe competition with the British, Belgian and German steel. Up to this time there is no chance for the steel industry in India to use by-products. The Jamshedpur firm produced 50,000 tons of steel for railways in India in 1916-17, 97,000 in 1917-18, in addition to considerable amounts of steel for engineering firms. In the year

1921, the total quantity of pig-iron produced was about 89,000 tons, and that of steel about 120,000 tons. The other company produced 90,000 tons of pig-iron, and 29,000 tons of cast-iron in 1918. Imports of steel and manufactures thereof from the United Kingdom fell during the war, which were made good by Japan and the United States of America, but England has recently recovered her position. In the year 1922-23, the imports of steel from the United Kingdom amounted to 281,000 tons, amounting in value to 10 crores and 66 lakhs of rupees.

Tanning and Leather.—We are very rich in our animal kingdom, and one very important result of that is, that we are one of the largest producers of hides and skins. Before the war, a large quantity of these hides and skins used to go to foreign countries, particularly to America and Germany. When these countries were engaged in the war, the prices of hides and skins fell. This gave a stimulus to the tanning industry in the country. Leather goods, such as boots, roller skins, bands, belting, etc., began to be manufactured in the country on a large scale by factories. With the help of the Indian Munitions Board—a war-time institution set up by the Government to promote the development of indigenous industries—which was able to find out tanning and other essential materials in India, the manufacture of the East India kips, or cow-hides, became threefold. It increased from 27 million feet to 80 million feet, and chrome process became popular for superior leather. Boots and shoes are manufac-

tured to-day to the extent of $2\frac{1}{2}$ million pairs, or 25 times the pre-war figure. The industry still suffers from lack of organisation and technical skill. The exports of hides and skins in 1923-24 amounted to 13 crores of rupees. England and not Germany is our principal customer now. We had some 30 up-to-date tanneries in India in 1922.

Paper.—Paper-making is an old industry of India, and is still practised as a cottage industry in certain parts of the country. First attempts at paper manufacture with the help of machinery, in the first quarter of the last century, were a failure. The position of the indigenous industry, the product of which was undersold before the war, has become much stronger now. There are some 9 paper mills in India to-day, the most important of them being the Titagarh Paper Mills, near Calcutta. The total annual production of paper now amounts to some 30,000 tons, which meets a third of the total demand in India. It is surprising why, in spite of our so many forests, we should be importing wood-pulp for paper manufacture from abroad. Other raw materials, such as grasses and bamboos, are found in India in plenty. War-time stimulus enabled the production of some specialised products, such as post cards, carbon-paper, railway tickets, card-boards, and such other goods. With pulp factories near the sources of wood and bamboo supply, with better organisation, and the development of subsidiary industries, the paper industry may be expected to make good progress, if only it

is given some protection against unfair competition with the foreign, imported goods. The industry has recently been given some protection.

Glass-blowing.—Glass-blowing as a cottage industry died long ago. Since 1892, when the first factory was started, the number of glass factories has risen to 20 to-day. Firozabad in the United Provinces specialises in the production of glass bangles, the annual value of which comes to some 20 lakhs of rupees. A third of the local demand for glass is met by Indian production. Like so many other industries, war-time encouragement enabled the production of articles like chimneys, bottles, beakers, test-tubes, dishes, flasks, etc., on a rather large scale. Competition with the foreign product is very keen to-day, and skilled labourers working as blowers are lacking. At places the climate is not suitable for glass-blowing. Coal and sand, the two important products needed for glass-blowing, are not found at or near places like Naini (Allahabad), Umballa or Firozabad, where glass factories are situated, the former coming from Bengal and the latter from the vicinity of Agra and Jubbulpore. The third requisite is Soda, which is imported from abroad. We have not been able to produce plate, sheet, or artistic glass so far. If the freights are reduced, the local industry may receive great encouragement. The imports of glass and glasswares amounted to 2,60 lakhs of rupees in the year 1923.

Soap.—Soap-manufacturing is also one of the important modern industries, although it is practised

at places on a small scale too. But our product is of inferior quality. There are some 50 or more large scale soap-manufacturing factories producing some 35,000 tons of soap. In the year 1917-18 the imports of soap amounted to £7 lakhs. The great difficulty in the case of soap-making is that cheap materials, such as melted fats, bone-fats, and waste greases from factories used for soap-making in other countries, are not available in India, caustic alkalis also being imported from abroad. The position of related industries is also very weak.

Match Manufacture.—The amount of match imports in 1919-20 came to 12 million gross, valued at 2 crores and 5 lakhs. British, Scandinavian, Indian and Japanese matches are consumed in India. The first two brands are superior in quality, but dear in price, and therefore do not command a wide market in India. That is the reason why some 93 per cent. of the imports in that year came from Japan. The number of big match-factories before the war was only 6. That has increased now, but our product is still inferior in quality. There are two big Chinese match factories at Rangoon, one European factory at Mandalay, and one at Shaḥdara near Lahore. There is no lack of raw material, but the transport charges from the forests are very heavy. There is the necessity of portable splint factories in the hills. Facilities for the transport of materials to the factories also require to be extended. That there is room for the expansion of the industry, may appear from the fact

that the imports of matches in the year 1923-24 amounted to 1,46 lakhs of rupees.

We have given above an account of some of the modern industries. There are, moreover, such other modern industries as tea, coffee, indigo, and rubber plantations, and coal and petroleum-mining. Besides these, other important raw materials for starting manufacturing industries are available in India in large quantities, some of them being the oil-seeds, sugar-cane, mineral ores, forest products, fishing products on the basis of which numerous important industries can be started. There are in addition hundreds of important cottage industries in the country, which utilise numerous kinds of raw products grown in the country.

CHAPTER V.

HUMAN FACTOR IN INDIA.

In the last four chapters we have given an account of the facilities that Nature has given us in India for the purposes of carrying on wealth-production. But land after all is only a passive agent of production, and in order to yield tangible results in the form of wealth, natural resources must be actively worked upon by the human agency. Thus the importance of materials provided to us by Nature for wealth-production is very great, but human exertions are still more necessary if anything is to be produced, or any utility is to be created. The next few chapters would be occupied in giving an account of the position of the human factor in India. The importance of this factor in wealth-production lies in supplying the labour, or the executive force needed for working the productive agents.

LABOUR.

Before we proceed further, it would be well for us to clearly understand the meaning and scope of the term "labour," for the use of the term in Economics differs from the meaning given to it by laymen in day-to-day life. Ordinarily, any physical

exertion of man may be regarded as labour, whatever its object may be. But all labour is not economic labour. Only that part of man's physical or mental exertion is labour, which is willingly or unwillingly undergone with the object of creating some utility or rendering some service. The results of such labour must be capable of being measured in terms of money. According to this definition, we shall have to exclude many kinds of labour from consideration, in order to find out only our economic labour. Thus the small services that we render to ourselves cannot be regarded as economic labour. Personal exertion, simply with a view to make an enjoyment, is not labour. Similarly, the labour of a thief, a gambler, a mendicant, or a gambling speculator in business cannot be economic, for all these classes of persons only transfer wealth from one person to another, without adding to utility. They render no service to the community by their acts, they do not increase the usefulness of that wealth by their transactions. All such labour therefore is only wasteful.

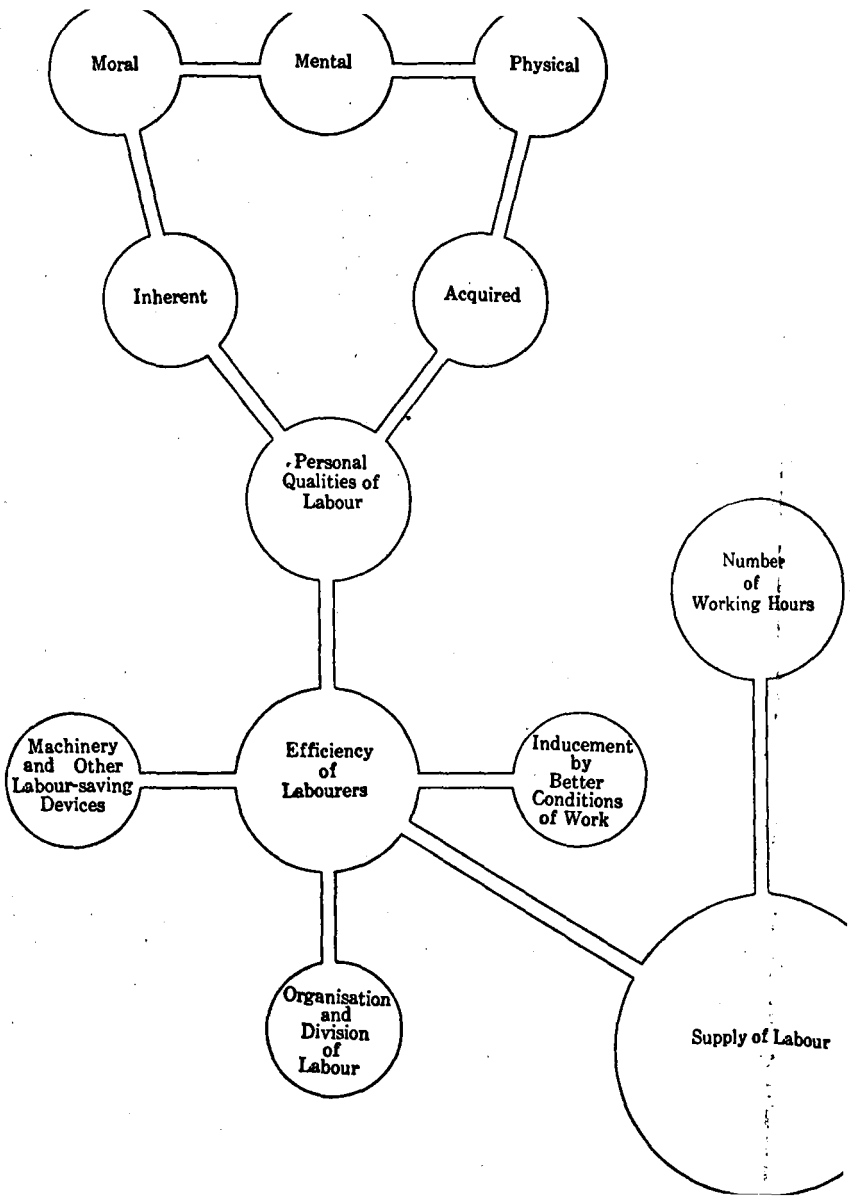
Productive and unproductive Labour.—And this brings us to a very important point in connection with economic labour, as to wherein consists its productivity. Speaking "broadly," says Chapman, "all is productive labour which yields or is intended to yield something of value." It embraces all services which we are prepared to pay for, irrespective of their being good or bad. Some labour is productive in intention, but ultimately results in nothing. During the course

of digging a well, it was found that the place was rocky and a well could not be sunk. The attempt was therefore given up. Judging from results, this labour may be regarded as unproductive.

Supply of Labour.—Having determined the place of labour in the economy of production, we now come to the question as to what factors determine the supply of labour in a country. The object of all economic effort is production or the creation of utilities. So far as the relation between production and the available supply of labour is concerned, we measure the supply of labour by the results of production, no matter how many labourers have achieved those results, or how much time those labourers have taken in obtaining them, so long as the latter have not overstrained themselves. For man, the satisfaction of his wants is, after all, the ultimate aim of all economic efforts. Labour, labour supply, or labour force of a country is the total productive power of the population of that country. Mere numbers alone do not constitute the total labour supply. Their efficiency or productive capacity also counts a great deal in measuring the labour supply. Even though smaller in numbers, if a people are *intellectually far advanced, physically strong and healthy, morally honest and dutiful, and materially better off*, their output of economic effort is bound to be much larger than the output of others who do not enjoy similar advantages. Being thus trained and equipped, given the use of power and machinery, and organised and divided in a

proper way, they are bound to beat their competitors in the race of production. That is why some countries with a small well-trained population are in a position to produce much larger amounts of wealth than countries with much greater populations can do. While the average annual yield of coal of American labourers per head in 1917 was 711 tons, and that of their British compeers, 257 tons, the Indian labourer could produce only 109 tons per head. Thus the output of an American coalminer was $6\frac{1}{2}$ and that of the United Kingdom miner $2\frac{1}{2}$ times the output of the Indian labourer. What is true of coal-mining, is also true of most other industries. Indian cotton mills, for instance, work for ten, and in some cases even for longer hours, yet their yield is only 65 per cent. of that of Lancashire mills, though the former employ a much larger number of persons than the latter, and the latter do not work for more than 8 hours a day on single shifts. Any number of illustrations can be multiplied to show that productivity is the essence of the supply of labour. The question of the supply of labour thus resolves itself into the following aspects: (i) number of available labourers, (ii) their productive efficiency, and (iii) the number of hours they work.

The diagram on the opposite page shows that the total supply of labour in a country depends upon the number of labourers in the country, their productive efficiency, and the number of hours for which they are put to work. The number of labourers depends upon the population of that country. If the number of births



exceeds the number of deaths in a certain period, the difference constitutes a natural increase in the population, and thus the available number of labourers may also be supposed to be increasing. But the available number of labourers is subject to another factor, namely, migration. The population of a country may be increasing by natural increase, but if there is a large exodus of the inhabitants of that country to foreign lands, the supply would naturally be diminished to that extent. On the other hand, if the number of immigrants into a country is large, they will add to the existing numbers and thus increase the supply of available labour. In the old countries, however, the main source of the supply of labour is its own inhabitants, although sometimes a part of their surplus population goes to colonies and plantations.

Procreation is in human nature. Population, therefore, goes on increasing automatically. If Nature had not been applying positive checks, that is to say, taking away large numbers of people by natural death, epidemics, wars, floods, famines, earthquakes, infanticide and accidents, the tendency for the population to increase is so great and irresistible that there would have been no standing room for the human race on the surface of the globe. Consequently, the civilized society, realizing the dangers of over-population and consequent misery and starvation therefrom, have widely adopted what are called the preventive checks—checks which result in lowering the birth-rate. Marriages have

been postponed or avoided, and moral restraints exercised, so that there may not be more children than can be well and easily brought up without a lowering of the standard of living. In these two ways the population of the world has been kept well within bounds. It was on the strength of this tendency on the part of the population of a country to increase, that Malthus enunciated his famous doctrine regarding the increase in numbers in a country. He said that the population of a country, if not checked, tends to increase in geometrical progression, (2, 4, 8, 16, 32), while the best that we can hope in the case of food resources, is that they may increase in arithmetical progression (2, 4, 6, 8, 10). Although the proposition that Malthus laid down is not mathematically exact and true, he certainly showed a tendency which is substantially true, and during the last one century peoples belonging to different countries have given their serious thought to, and have always prominently kept in view, the question of their over-population and adopted remedies therefor.

Efficiency is another important factor in the supply of labour. The importance of this feature of labour has already been touched upon. If ten labourers are well-organised and each of them is given the work for which he is best fitted, their output would be much larger than in the case when all of them take to their work haphazardly without organisation. Similarly, a shrewd, intelligent, honest and healthy labourer, or a labourer who has received the necessary

training for any particular kind of work, or yet another who makes large use of power, tools and implements or other labour-saving devices, would show better results than any other labourer not possessed of the former attributes or the latter qualifications. Thus organise the labourers, and their outturn of work will increase. Have good, honest and physically fit men, and their presence will be reflected in the amount of work done. Honesty, intelligence, and hard-working habits are no doubt inherent, but physical fitness depends upon race, training, a supply of nutritious food and pure water, sanitary conditions, environment, and other conditions. Training can be acquired by imparting them elementary and technical education. And thus if they become conversant with modern devices and use machinery on a large scale, the production of a country very largely increases.

The importance of the third factor, namely, the number of working hours, on the supply of labour is very small. The main principle is the other way. The shorter the number of hours the labourers work, the greater is the devotion and concentration with which they work, and consequently the greater is the output of wealth produced. In less advanced countries, however, the reverse holds true. The latter increase the productive capacity of their unskilled labourers by employing them for longer hours. Thus long hours of work also sometimes increase the available supply of labour. A movement for the reduc-

tion of hours of work can become successful, only when Science has made some progress and a reduction in the hours will not bring about a decrease in output. Henry Ford is now experimenting if he can declare a week of five working days in his motor works, without a diminution in the output of work. If the necessary conditions are not satisfied, a reduction in the number of working hours in factories decreases the output, and a small increase in the hours of work brings about a corresponding increase in the amount of wealth produced. A recent big order for ship-building was placed in Germany by a British shipping firm, because the German firm could supply the goods at much smaller rates than any British ship-building house. On enquiry it was found, that a lower quotation by the German firms was possible on account of, among other things, longer working hours in factories in Germany, less wages of labourers, and more economical methods of work. Thus longer working hours can, to a certain extent, increase the supply of labour, and therefore its productivity.

Now we shall give an account of the conditions of the growth of population in India.

CHAPTER VI.
HUMAN FACTOR IN INDIA.

GROWTH OF POPULATION.

Health and Vital Statistics.—In this chapter we shall deal with the conditions under which our population has been increasing.

The first regular census of India was taken in 1872, and since then decennial enumeration of population has been carried on in 1881, 1891, 1901, 1911, and 1921. The population of India was recorded to be 206 millions in 1872 and a little less than 319 millions at the time of the last census. There would thus appear to be an increase of over 50 per cent. in the population of the country in the last fifty years. After making allowance for the inclusion of new territory that has since the first census been added to the territories of the Indian Empire, the real increase of population has been estimated to be 20.1 per cent. in the last half a century. In the same or even in smaller periods the population of some European and non-European countries has increased by a much larger percentage. Thus the population of England and Wales increased by 39.1 per cent. from 1881 to 1921; in the same period the population of the United States of America increased by

82.1 per cent. The population of Japan rose by 83 per cent. in 24 years from 1896 to 1920, and that of Russia rose by about 50 per cent. from 1890 to 1914. These figures lead us to the inevitable conclusion that the growth of population in our country has been much slower than what it has been in the case of several other countries mentioned above. Whether we would have been in a position to sustain a heavier population than what we have with the existing rate of our wealth-production, is beside the present issue. The point under consideration is, under what conditions this growth of population has taken place in India.

The following are the averages of our birth and death rates for the last 3 decades. The averages of birth and death rates for the period 1901—11 for some other important countries are also given along with our figures:

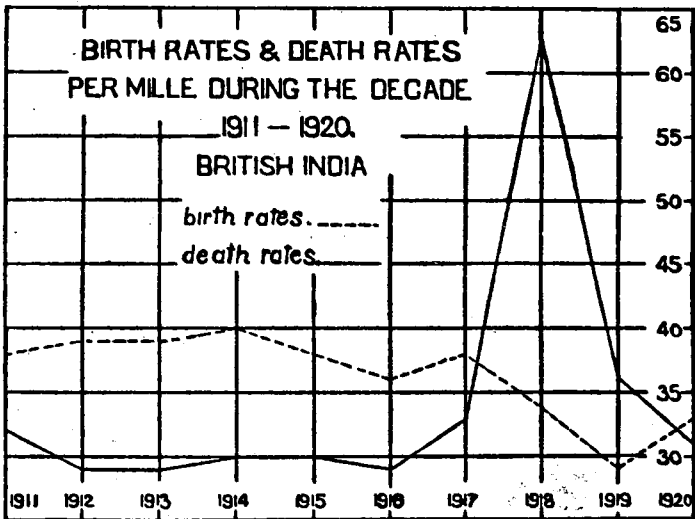
		Birth-rate.	Death-rate.	
India	}	1891—1900 ...	35.43	31.31
		1901—1910 ...	38.18	33.94
		1911—1920 ...	36.93	34.13
European Russia (1896—1905) ...		48.47	31.41	
Germany (1902—11) ...		32.31	18.39	
Japan (1900—1909) ...		32.85	20.86	
England and Wales ...		26.8	15.15	
France ...		20.25	17.32	

The above figures show that our average birth-rates during the three decades closed in 1921 have remained uniformly higher than the birth-rates of some other civilized countries, and in some cases the differ-

ence is very great, and still the increase in our population during the last 50 years has been very small. One special feature of our figures is that while our birth-rate is higher than the birth-rate of other countries, our death-rate like the death-rate of every other country having a high birth-rate is more than correspondingly higher than the death-rates of other countries, with the result that our survival-rate in this country has always been very small. The natural question that arises in our mind now is, why should our death-rate be so high? Why should we not be in a position to retain a larger number of people from among those that are ushered into the world?

An examination of the economic conditions of the five decades, and the conditions pertaining to the public health, reveals to us the true facts of the situation. Severe famines in Southern India between 1872—81 took away very large numbers from our population. The succeeding decade was a period of normal growth for our population, when it increased by about 9.6 per cent. for the whole of India. But the closing years of the 19th century (1897—1901) again witnessed famines of an unprecedented type, which resulted in enormous loss of human life due to pestilence, misery and starvation. In the decade from 1901 to 1911, the epidemic of plague wrought havoc and took away as many as 6½ million people from Northern and Western India. During the whole period from 1891 to 1911, the growth of population was very much affected by famines and plague. The former brought in their train cholera,

dysentery and fever, besides actual starvation which was small. These diseases played havoc with an already exhausted and enfeebled population. It has been estimated that during the two famines of 1896-97 and 1899-1900, the death-roll exceeded the normal mortality of non-famine years by 5 millions, of which the greater portion occurred in the Native States. Between 1896 and 1901 three-quarters of a million died of plague alone. The mortality from plague was even from 70 to 85 per mille, though at times it was considerably higher. By 1912 the Punjab alone lost $2\frac{1}{4}$ million persons from plague out of a total population of 20 million persons. The million limit in the plague mortality of India was not reached before 1904, when about $11\frac{1}{2}$ lakh deaths were recorded; and again in 1907 it was a little over 13 lakhs. It is, indeed, a remarkable thing that the statistics of population showed any increase at all between 1891 and 1911, when the period had witnessed two of the greatest of famines, and for three-quarters of the time plague had raged throughout the country in a more or less virulent form. And finally the influenza epidemic of 1918-19, which is still fresh in our mind, is estimated to have taken away as many as between 12 and 13 million people from the whole of India. The epidemic took a heavy toll, and its victims were mostly people between the ages of 20 and 40, particularly females. It attacked two-fifths of our population and took away one-tenth of those attacked. It is said that the whole of the increase in population of the first 7 years of



the recent decade was swept away by its onslaught. In some provinces the rate of mortality was exceptionally heavy. In the U. P., for instance, the population has actually decreased since 1911. As would appear from the annexed diagram, throughout these two years (1918-19, when the influenza epidemic remained) our birth-rate remained lower than our death-rate, and only in 1920 it could slightly recover from the heavy shocks of the disease. The decennial period was not free from plague, too, and as many as 3¼ million people died of plague during the decade. The fact is that the country, being a tropical country, suffers from all tropical diseases peculiar to our climatic conditions, such as malaria, small-pox, cholera and numerous kinds of fevers. Diseases of an exotic nature like plague and influenza have also found a congenial soil in this country for their growth and prevalence. The net result is, that large numbers of our population die of these diseases. To these unfavourable climatic conditions is added the further evil of our average low standard of living. Whenever these diseases, therefore, visit the country in the form of epidemics, they not only cause a heavy mortality among all those whom they find unprepared, but also considerably reduce the vitality of the people as a whole.

From the above discussion we have sought to draw the conclusion that, although our birth-rate is very high, our large numbers are periodically taken away by such great calamities as famines, and more

recently by epidemics like plague and influenza. There is a great deal of force in what Mr. Pell says, that India's population is still very largely controlled by disease. On the page opposite are drawn two curves representing birth and death rates of British India in different years during the last decade. It is stated that there were serious outbreaks of plague in Bombay, the Punjab and the United Provinces and the Central Provinces in the first two years of the decade, mortality was again high in 1915 and higher still in 1917 and 1918, when the disease was severe in practically every part of Northern and Central India. It would thus appear that during the whole of the decade, 1913 and 1916 were normal years in the sense that they were free from any exceptional calamity affecting the death-rate. Even in the best years the death-rate curve does not appear to have fallen below 28 or 27 per 1,000. Admitting that in years of exceptional calamities our surplus population is taken away by disasters more or less of an exceptional and uncontrollable character, why should the death-rate be so much higher than the death-rates of other civilized countries, even in our best years of mortality? Our death-rates in years of a normal character also remain unduly high. The death-rates of other civilized countries are usually found to range between 15 and 20 per 1,000, while in our case in normal years it is found to be as high as just below 30. We have therefore to find an explanation for the slow growth of our population, not so much in the high

death-rates of extraordinary years, but in the high death-rate as it normally stands in the uneventful years.

It is a matter of general observation that a very high birth-rate in any country is usually accompanied by a very high death-rate. Both these high rates are a sign of uncivilized condition of society. One important thing regarding the growth of our population is, that it has been very slow during the last 50 years, and a still more important thing about it is, that even that small increase has been obtained at an immense trouble to the parental humanity of India. Our average birth-rate during the period of last census was 37 per 1,000 and the death-rate a little over 34. What counts in the growth of population of a country, is the net survival-rate. What, after all, is the advantage of ushering forth so many lives into this world, for whom you cannot make a decent provision after birth? We have, therefore, necessarily to pay a heavy penalty for a high birth-rate in the shape of a heavy death-rate. Two special features stand out above all others as a result of the study of our vital statistics. They are: (i) a high infantile mortality, and (ii) a very high death-rate among females at reproductive ages. The conclusions are borne out by the following figures that tell their own tale:—

Average of deaths of children under one year per 1,000 births, for the period 1902—1911:

European Russia ...	260.5	Bombay	... 320
France ...	132.4	Burma	... 332

Germany	...	186.6	Bihar and Orissa	...	304
Japan	...	159.8	Punjab	...	306
England and Wales		127.3	Bengal	...	270
U. P.	...	352	Madras	...	199

When compared with other countries, our infantile mortality is very high. What are the reasons for these high infantile mortality figures? The new-born are either so weak that they cannot survive, or the conditions of midwifery are not satisfactory, or they cannot be properly cared for, or the children are kept under insanitary conditions. Unfortunately, all the facts are true in the case of our high infantile mortality. In towns of industrial labour like Bombay, female labourers have sometimes to work in the mills even up to the very day of delivery. The results of births taking place under such conditions can easily be imagined. It is stated that, in the year 1921, to every 1,000 births, while 146 children died in Vienna, 135 in Berlin, 140 in Cologne, 95 each in Paris and Hamburg, 80 in London, 54 in Christiana, in our own city of Bombay as many as 666 died below the age of one year in the same period, 402 in the following year, 410 in 1923 and 411 in 1924. All this shows what an enormous wastage of human life takes place in our country. If midwifery conditions improve, sanitary conditions are made better, and a greater care of the children is taken both before and after birth, some of this preventable wastage of human life could be avoided. But what to do with the weaklings, born of immature parents that cannot survive under the best possible

circumstances owing to their natural debility? While, therefore, there is considerable room for the improvement of external conditions required for the upbringing of the new babes born, the real remedy of our high infantile mortality has to be sought in raising the age-limit for all marriages taking place in India, so that healthy children may be born with a reasonable prospect of survival.

Marriage is a universally popular institution among all the important religions of this country. "Everyone marries whether fit or unfit, and becomes a parent at the earliest possible age permitted by nature." Marriages take place in India irrespective of economic considerations, and so does child-begetting. Early marriages not only thwart the progress of our young men, they entail an enormous amount of trouble to young mothers who are in most cases found to be incapable of bearing the burden of child-bearing, with the result that female mortality at reproductive ages is very heavy. The average number of female deaths per 1,000 male deaths between the ages of 15 and 30 for the period 1901—1911 is given below. Female percentage in India being smaller than male percentage, female mortality is much higher than is indicated by the figures.

Bihar and Orissa	... 951	C. P. and Berar	... 1,100
Bombay	... 1,043	Punjab	... 1,010
Burma	... 862	United Provinces	... 1,080
Madras	... 1,232		

Many marriages that now take place should not take place at all, and the time of marriages should be postponed in the case of almost all marriages in India. Voluntary birth-control is absolutely unknown in India, and there is the necessity of a great deal of propaganda in favour of such control of births. In the opinion of Carr Saunders, India in the matter of the growth of population is in the intermediate stage when she has abandoned her old methods of limiting population, such as periodic abstention from intercourse, abortion and infanticide, and has not adopted the advanced methods of restricting population, such as the postponement of marriage and voluntary birth-control. One unfortunate feature of our high birth-rate is, that we are increasing at the wrong end. Birth-rate is higher in India among the aborigines and the backward classes than among the upper classes, on whom the sterilizing influence of a luxurious life appears to have made its effect, and the former heavily pay for it during the epidemics. Thus, the whole increase of the aboriginal population of C. P. in the first 7 years of the recent decade was taken away by the influenza epidemic. The dictum of Herbert Spencer that "Organisms multiply in inverse proportion to the dignity and worth of living," appears to be true. The greater the instinct of self-preservation, the smaller is the increase in population. Owing to the more economic use of widows among the Muslims, the birth-rate is higher among them than among the Hindus. Thus, while in the period from 1881 to 1911

the Muslims increased by about 37 per cent., Hindus increased only by 15 per cent. That shows that Muslims are more prolific than certain other important communities.

Thus we find that our high birth-rate is a great evil; it causes high infant and maternal mortality. The penalty for a heavy birth-rate is paid in the shape of a very heavy death-rate. The influence of these high mortality figures on the average expectation of life in India is very serious. While the average expectation of life in England is 46, in our own country it is only half of that, and shows a downward tendency. We now summarise the causes of our high birth and death rates:

Birth-rate.—Our high birth-rate is the result of the universal popularity of marriages, which take place owing to religious injunctions, irrespective of economic considerations. Unrestrained marital relations are indulged in by married couples, and what is known as voluntary birth-control is absolutely unknown to us. The standard of living of the people is very low. Fertility is very high among the Muslims, aboriginal tribes and the low castes. Reproduction in this country begins at a very early age.

High Death-rate.—Large numbers die owing to such preventable diseases as are peculiar to our climatic conditions. Many weaklings are born that cannot survive even if they are put under the best conditions of growth. Added to these are the further evils of low standard of living, insanitary conditions, bad mid-

wifery, and very low regard for infant and maternal life. Repeated shocks of diseases and pangs of child-bearing make lives shorter in India. This is particularly true of females, for after all every new product is a deduction from the parents.

Remedies.—The foregoing discussion has made the task of suggesting remedies for the two evils easier. Owing to railways and famine-relief operations the nature of famines has considerably changed, and death due to starvation has become a rare phenomenon. Diseases, however, still take a heavy toll and enfeeble our population, and for that better sanitary conditions and extended facilities for medical relief are necessary. The age for marriage should be increased, and voluntary birth control should be extensively practised. But nothing will so much improve the condition of affairs as an inculcation in the mind of the mass of the people of the importance of a higher standard of living which automatically works as a deterrent to heavy increases in population, restricts the numbers, and thus tends to keep high the efficiency and equipment of our existing population.

CHAPTER VII.
HUMAN FACTOR IN INDIA.

DENSITY OF POPULATION.

In spite of a heavy death-rate, the population is very dense in certain parts of the country. The phrase *density of population* means the average number of persons living per square mile of area. The expansion of population in a country very much depends upon the available means of subsistence in that country. The greater, therefore, the wealth-production in a country, the greater is likely to be the increase in population. Prosperity brings about rapid multiplicity in numbers, and under conditions of increasing wealth, the fear of a fall in the standard of living is not imminent. During the last 100 years or so, the wealth of some European countries has increased hundredfold. Their numbers have also made rapid strides, with a decided improvement in their standard of living. Thus we find that England has a density of 649, and Belgium that of 654; Germany has a density of 332, while Japan of 215. French population is more or less stationary owing to the over-practice by that nation of preventive checks. Her density is only 184, while the United States of America is only a new country, and the

density there does not exceed 32 per square mile. In our own country, as would appear from a glance at the map on opposite page, while the British Provinces appear to be very darkly coloured, the Indian states tell a different tale. The density of population in the former section is 226 per square mile, and in the latter 101, while the mean density for the whole of India works out at 177 per square mile. The average density of some of the important provinces and Indian states is as follows: Bengal 608, United Provinces 427, Bihar and Orissa 409, Madras 297, Baroda state 262, Punjab 207, Mysore state 203, Bombay 157, Hyderabad state 151, Assam 143, Central Provinces and Berar 139, and Burma 57.

These figures and the map opposite regarding the density of population enable us to draw the conclusion that about one-third of the population occupies rather more than two-thirds of the area at a density below the mean of the country, while one-sixth of the area is occupied by nearly half the population at a density of over 350.

What then stands at the root of these variations in the density of population in different parts of the country? Speaking generally, in order to increase and multiply, man must have certain essential conditions—food, water, clothing, shelter, a tolerable climate, and a reasonable security of life and property. On an examination of the particular causes that account for the varying density of population prevailing in different parts of India, we find that the facilities for

earning a livelihood play in India, as elsewhere, the most important part in the expansion of population. And the subsistence of as many as 72 per cent. of the whole population being bound up with agriculture, causes affecting agricultural prosperity have a direct bearing on the density of population in India. Important requisites of successful and continuous agriculture are fertile soil, plain country, and an abundant supply of water for irrigation. Speaking generally, density would be found to be closely following these three essentials of agricultural prosperity in India, except at those places where the influence of these factors is counteracted by some particular factor still more seriously operating in the opposite direction in any particular region. Thus the level plains of Northern India are one of the most congested areas, and rainfall being the most important source of the supply of water in this region, density varies directly in proportion to the amount of rainfall, subject to the modifications caused by other factors. Thus, for instance, in Eastern Bengal, where the density of population rises as high as over 1,000 persons per square mile in certain tracts, every factor favourable to the growth of an agricultural population reinforces the dominant influence of an abundant and stable supply of water from the heavens. Surplus water is taken away by a network of rivers. Whereas in Western Bengal, the effects of equally good soil and abundant rainfall are marred by the malarial climate due to water-logging in the rivers. Physical configuration of the soil is

also not favourable there. Comparatively low density in parts of the Indus valley and Rajputana is accounted for by the deficiency in rainfall. Where this deficiency of Nature has been made good by man by artificial means of irrigation, cultivation is possible and population has well aggregated. The Punjab canal colonies afford the best illustration of such phenomenon. There are other parts of the country like the Ganges and Jumna valleys, and the plains of Gujrat where level country and ordinarily sufficient rainfall enable continuous cultivation. Population, therefore, in these parts also is dense. But where rainfall lacks stability in respect of its periodic, seasonal and local incidence, suspensions and break-downs of the economic machinery sometimes occur owing to their partial or total failure. In Central India, below the Ganges valley, the soil is not well fitted for agriculture, and consequently the population is not very dense. Thus hilly or mountainous parts of the country, or parts of the country covered by forests like those of Central and Peninsular India, neither allow continuous stretches of cultivation, nor enable means of communications and transport to be developed. Failure of rain in these parts retards the growth of population even where it can expand. The coasts and Gujrat in the south have high density owing to favourable physical features and stable rainfall. Gujrat has a density of nearly 300, Malabar district and West Coast of 585, Cochin state of 662, and Godavari district on the East Coast a density of 578 persons to the square mile.

Thus, physical factors like the fertility of soil, level nature of the country, stability and amount of rainfall, climatic conditions—all these have a very great influence on the density of population in India. But there are historical and other causes too, that explain, to a certain extent, variations in density in certain parts of the country. Thus, the Gangetic valley has always been the principal habitat of the chief civilising dynasties of India. Absence of law and order until recent times interfered with the settled life of the people in Burma and Assam. The Central Provinces were mostly inaccessible owing to the absence of transport facilities. Bad climatic conditions have their influence in Bengal and the Central parts of the continent, and hills and forests affect population in central and southern areas. Effects of the presence of the artificial means of irrigation are reflected in the densities of the canal colonies in the Punjab, parts of the United Provinces and the East Coast of Madras.

A new factor of increasing importance affecting the density of population is the development of modern industries. Thus, docks and jute mills of Calcutta, tea industry of Assam, the minerals of Bengal and Chota Nagpur, the cotton industry of Bombay, and the coffee and rubber plantations of Southern India—all these attract labour from congested rural areas. To this movement of labour from rural to urban areas we shall again revert when we discuss the mobility of labour in India.

THE QUESTION OF OVER-POPULATION IN INDIA.

There is no gainsaying the fact that there is a close relation between the food resources, the total amount of wealth produced in a country, and the population subsisting thereon. Our food resources are sufficiently great, we have usually a surplus of food-grains to export. What is then the relation between the amount of wealth produced in India and the population subsisting on it? Is the population too large for our resources to support? Let us make one observation at the very outset of this discussion, that there is a great difference between the existing means of subsistence and the potential resources of a country for wealth-production. The growth of population and the development of the means of subsistence are not static, but dynamic phenomena. If the latter develop, the position of the former becomes decidedly improved. For our immediate purposes, however, the former alone is of practical importance. An important section of our economists is agreed that, judged by the existing pressure of population on land in certain provinces and states, we are suffering from over-population. A highly industrialised country can support a dense population, not so an agricultural country, much less an agricultural country like India, where the yield from agriculture is perhaps the lowest of all the civilized countries of the world. And what is our present position as to population? When we compare the figures of density of population of our

provinces with the density figures of some European countries, we find that in the most fertile and agriculturally developed provinces, like Bengal (678), U. P. (414), Bihar and Orissa (340), the density is as great as, in certain cases higher than, the densities of some industrialised countries like Belgium (654), England and Wales (649), France (184), Germany (332), and Japan (215). With such great pressure on the land and low yields from the cultivation of the soil, people, perhaps, could not but eke out a bare hand-to-mouth subsistence with a low standard of living. Healthy growth of population under such circumstances is out of the question. This is mainly the reason why the Indian population is so poor, devitalised, half-famished, and incapable of resisting the inroads of epidemics. High birth and death-rates are also accounted for by the same conditions of poverty. In an earlier part of this chapter, it has been pointed out that nearly half the population is concentrated in one-sixth of the area of the country. Let it be added here, that that area alone has the greatest natural facilities for development. The rest of the country is incapable of making great progress in wealth-production owing to its being infertile, rocky, desert, or forest-covered. Thus, on the face of it, the population is heavily congested in those regions where there are facilities for wealth-production, and only sparsely in other regions which are not so much favoured by Nature. The two groups of areas respectively cannot afford to maintain heavier numbers. "Some parts of the country are already

supporting more persons per square mile than are supported by the agricultural areas of England, Germany and other European countries where the art of agriculture is highly advanced. In the agricultural and pastoral counties of England, the density of population is hardly 200 per square mile. On the other hand, in India there are some agricultural tracts of the country, where agriculture supports three or even four times the number supported in England." The conclusion, therefore, is irresistible that we are at present suffering from over-population.

Let us now look at the other side of the picture, and examine the contention of those who say that there is large room for the expansion of population, and that as a result of further industrial development, improvement in artificial irrigation facilities, the introduction of the scientific methods of cultivation in agriculture, further exploitation of the undeveloped resources of provinces like Assam and Burma, and extension of the area under cultivation, we can afford to increase our numbers. There is no doubt that in some of the above directions there is room for improvement. Assam and Burma can increase their population. But then there is the question of raising the standard of living of the community as a whole, and it is of utmost importance that any increase in the wealth-production of the country should be utilised for that end.

CHAPTER VIII.

HUMAN FACTOR IN INDIA.

VOCATIONAL DISTRIBUTION OF THE POPULATION.

In the last chapter we discussed the distribution of population in India on the basis of area. In this chapter we shall discuss the distribution of population according to professions.

The whole population of India is over 319 millions. The following percentages represent the functional distribution of the population of India:—

	Per cent.
Production of raw materials	... 73.2
Industries (mainly cottage)	... 10.5
Trade (largely of agricultural products)	... 5.7
Transport (largely of agricultural products)	... 1.4
Public administration and defence	... 1.5
Professions and liberal arts	... 1.6
Miscellaneous (mainly unclassified labourers and clerks, etc.)	... 6.1

The functional distribution of the population of a country gives an idea of the stage of economic progress of that country. A country with a very heavy percentage of agricultural population is regarded as far from advanced in respect of modern civilization. Thus, all the highly industrialised countries of modern

times had at one time or another, in the course of their development, been preponderantly agricultural countries, and when by the progress of Science they have secured greater control over Nature, they have taken to industries, which require greater skill, enterprise, and large amounts of capital. Our figures show that the pressure on the land is very great in our country. Land supports a much larger number of persons per acre than is supported by acreage in other advanced countries like England and Germany. It was stated by the Industrial Commission that every cultivator of land in India, according to the census of 1911, has 2.6 acres of cultivated land, whereas his compeer in Great Britain and Germany had 17.3 and 5.4 acres, respectively, before the war. The pressure of population on the land becomes all the heavier in our country, when we take into consideration the fact that our average yield per acre is much lower than what it is in some other agriculturally advanced countries. Then our agricultural industry is, in spite of all the progress that has in the last generation been made in the construction of artificial means of irrigation, still so very much dependent for its prosperity on seasonal rainfall. There lies the true weakness of the functional distribution of our population. One single failure of rains throws the whole economic machinery of agricultural production, distribution, and consumption out of gear, and large numbers of persons are thrown out of employment. In other countries, much smaller percentages of population are absorbed in the production

of raw materials and food-stuffs. Thus, in France the percentage is 42, in U. S. A. it is 44, and in England 10, of the active population. That shows how rich and many-sided their life is. There is not so much danger of the break-down of the productive machinery, as it is here in the case of India. "A due co-ordination of the threefold forms of industrial activity," said the late Justice Ranade, "even if it be not most immediately advantageous to individuals in any one period, is a permanent national insurance against recurrent dangers, and as such is economically the most beneficial course in the interests of the community." Thus, a systematic policy for mitigating the effects of the present state of affairs would involve three-sided activities: (a) The employment of population in manufacturing and other non-agricultural industries to a much larger extent than is at the present time the case; (b) decreasing dependence of agriculture on the smiles of Nature, and a greater control over the machinery of agricultural production—in short, the efficiency of agricultural production by the employment and substitution of better agents of production than the existing ones, and by superior organisation in every detail of agriculture; (c) introduction or re-introduction of suitable cottage or subsidiary industries to keep the agricultural population absorbed in their spare intervals of time, or during the dry or famine years. It is not suggested that agriculture in itself is an inferior type of industry. But the present unscientific and unmethodical ways of carrying on agriculture

require a great deal of improvement. There are however certain defects attaching to our remaining a preponderantly agricultural country: (1) An agricultural country is a loser in international exchange. It has to give large quantities of food-stuffs and raw materials in order to get manufactured commodities in exchange. (2) The industry is severely subject to the Law of Diminishing Returns, more particularly so in the case of an old country like India, where the cultivation of the soil has been practised from immemorial times and modern methods are slow to be introduced. (3) Crops are after all crops, and agricultural production cannot be so certain as production in the case of manufacturing industries. (4) Fluctuations in prices of agricultural products as a result of bumper or deficient crops are heavier and more uneven than in the case of manufactured commodities, where the cost of production tends to be steady. Overproduction of cotton in America and Egypt recently created a slump in the cotton prices. (5) That exports of certain raw materials as jute, cotton, seed, or hides, are made to foreign countries not because there is a surplus of them in our country, but because we are unable to turn them into manufactured commodities, is indicative of an inferior type of industrial activity.

Thus, the most significant fact regarding the vocational distribution of our population, namely, that our agricultural industry is overmanned, has been explained. The number of those supported by modern industries in India is very small. They form 1.5 per

cent. of the total population. The percentage of workers supported by modern industries in the United Kingdom is 27.6 and in Switzerland 25. It is a weakness of our economic system that, in spite of our being so rich in resources for the development of modern industries, only a small fraction of the population should be engaged in modern industries, and the materials exported to foreign countries to be exploited by the foreigners, sometimes to come back to this country in a manufactured state.

CHAPTER IX.
HUMAN FACTOR IN INDIA.

MOBILITY OF LABOUR.

Labour of a country, in order to serve its purpose effectively, ought to be fluid like water. Much as water seeks its own level, labour should also do so. Thus, if the United Provinces men find better prospects of wages at Calcutta, they would in all likelihood move on to the latter place, or, again, if a cattle-breeder finds that agriculture is more profitable than his own profession, he will give up the former in favour of the latter. Or, if an overseer has slowly and gradually acquired the knowledge and experience of an engineer, he ought to be shifted on to the upper grade, in order to make room for those less qualified, who can do his old work equally efficiently. *This quality in labour to move, when required, from place to place, profession to profession, and from one grade to another grade, is known as mobility of labour.*

Flow of labour from one place to another by the prospects of better wages is called *geographical* or *place mobility*, while that between trade and trade of an almost equally paying nature is called *horizontal* or *professional mobility*. Capacity for horizontal mobility can be very much developed at the early stages of

the training of labour. This kind of mobility helps labourers a great deal when they are thrown out of work from any particular industry. They can exercise option, and can join any profession from among several ones that they have learnt. The third kind of mobility is called *vertical mobility*. When a man of talents and qualifications gets into the higher grade, and gets work according to his superior capacity and talents, his output of work is greater than formerly, and the society as a whole stands to gain thereby.

Importance of the Mobility of Labour.—Mobility is one of those factors that go to promote the efficiency of labour in a country. Labour should have the capacity of readily adjusting or shifting itself in accordance with the requirements of each case. Labour gains in personal prospects by mobility. In a country like India, where economic transition is going on, there is great friction, and the forces of competition are not fully at work, mobility of labour brings about equalisation of wages as between place and place, and class and class. Besides the gain in adaptability that the moving labourer acquires, there is gain in utility under conditions of full competition.

FACTORS GOVERNING MOBILITY OF LABOUR IN INDIA.

Geographical Mobility.—Agricultural classes almost all over the world are conservative and home-sick, more so in India, where other circumstances have also helped to perpetuate that state of affairs. Things

have however changed in recent times. A keener struggle for existence, facilities of communications and transportation, throwing open of avenues for better employment in the towns, resulting from the increasing development of modern industries and transport, have, however, to a certain extent, made our rural classes stir out of home. But the greatest difficulty in the way of place mobility is the low standard of living of the people. They would stick to their small holdings, and would not leave their homes to secure better conditions of life elsewhere. There is no doubt that sometimes unfavourable geographical and climatic conditions, language difficulties and the absence of information bureaux have retarded that consummation. Some of the above obstacles, however, are not insurmountable. Labour is everywhere scarce, and industrial centres always cry for more and more labour. Surplus or out of work population can easily be absorbed in industrial centres.

Horizontal Mobility.—As regards mobility from profession to profession, conditions for its development too are very unfavourable in India. There are many caste restrictions and social and religious customs, on account of which professions cannot be changed. Decay of old industries has, however, compelled large classes of artisans and labourers to give up their old pursuits and take to new ones that are available.

Vertical Mobility.—So far as grade mobility in India is concerned, there cannot be much of it here,

because the vast majority of our labourers is unskilled. The number of technical institutions in the country is very small, as compared to the size, magnitude and the requirements of its population.

The larger diffusion of general education has, however, considerably changed the conditions for the better. English education has moreover produced its levelling effects. Many prejudices have been removed and restrictions relaxed. Large development of commercial and industrial traffic shows that labour is now much more fluid and mobile than it was a generation or two ago. There are now a few regular currents of the movement of labour in India:—

(a) The most important movement of labour is from rural to urban areas. Better prospects of wages take labour to towns from the surrounding rural areas generally.

(b) The average Bengalee being averse to manual labour, the jute and other mills and docks of Calcutta attract labour from the United Provinces and Bihar and Orissa, where many among the rural classes, owing to very great pressure on the land, find it difficult to make the two ends meet.

(c) Labour also freely migrates into the provinces of Assam and Burma, in order to find work in the tea plantations in the former province, and to exploit and develop the natural resources in the latter.

(d) Bombay also gets its supply of labour from the surrounding districts.

(e) An important movement of labour from India to the colonies and foreign countries has quite recently very much come into public notice. There are over a million Indian labourers in South and East Africa, Australia, Fiji, Trinidad, New Guinea, Malay, the Straits and Ceylon. But most of them are comparatively unskilled. Their low standard of living generally, and acceptance of low wages, have brought them trouble, and made the problem of "Indians outside India" a thorny one to all the parties concerned.

CHAPTER X.

HUMAN FACTOR IN INDIA.

SOCIAL INSTITUTIONS AND USAGES.

Social institutions all the world over influence the course of economic activities a great deal. In the case of the Western countries, the influence of economic requirements on the social institutions is so great that the latter are fast being moulded in accordance with the requirements of the former. In India, however, some of the social institutions are of very long standing, and have consequently become very rigid in their operation. Their influence is very much reflected on the economic life of the people. There are several social institutions in India, such as the joint-family system, the caste system, the laws of succession, inheritance and property, that appear to be unsuited to the economic conditions of a modern community, and only prevent the full action of the economic forces. There are many social customs, usages and practices too, that are a cause of friction in the working of the forces of competition.

The Joint-family System.—A typical European family consists of a husband, a wife, a couple of children, and a parent either of the wife or of the husband.

The number of dependents living under the roof of the joint family in India is much larger. Those living with a joint family may include, in addition to the above, married brothers, sisters, wives of sons, grandsons, granddaughters, other dependents and relatives. The production under the joint-family system is joint, inasmuch as every earning member of the family contributes the whole of his income towards the common family purse. Their consumption is also joint, because all the members of the family enjoy the family property on terms of absolute equality. Thus, common bond of unity and affection in this case is very great. All equally share in the prosperity and adversity of the family. The basic principle of this system is very good that it insures a minimum of subsistence to all the members of the family. The joint-family system lays down a responsibility on the head of the family, who trains the young men for different occupations, marries them, gives them a start in life, and takes care of the infirm and the old. The laws of succession and property based on the joint-family system, giving a right to the heir in the ancestral property, are applicable to Hindus in all parts of the country. In the case of the Muslims, however, the property-holder for the time being having greater rights of disposition in his life-time, the bonds of joint family are not so strict. Economic effects of the family living together are not less, even in the case of Muslims. The system worked all right when there was group production and the life was based on the village community system. In

modern times, however, in the world economy, when the competition is very hard and the struggle for existence has become much keener, the joint-family system fosters indolence and stifles all energy. A young man often requires freedom to develop his capacities, and it is only when he is living as a separate unit, with or without a small family of his own, and not as a parasite on the family, that he can be expected to make a display of his enterprising nature. There is no adequate scope in the joint-family system for the development of individuality and the exercise of initiative. The heavy load of the cares and responsibilities of a family sometimes severely acts as a hindrance in the way of a young man, when he wants to take up risky ventures from which he expects large gains in the end. Whatever merits, therefore, the joint-family system has got as a social institution, from the economic stand-point the balance weighs heavily on the side of its disadvantages.

The Caste System.—Of greater bearing on the economic activities at the present time than the joint-family system is the institution of caste. The origin of caste is explainable by the functional distribution of population, or the professional division of labour. Particular families and groups took to particular occupations, till the division between different sections of the community became rigidly water-tight and stereotyped. In former times, this system, on account of the specialisation that it allowed, promoted professional skill and dexterity, and helped to maintain the

various arts and industries of the country, and distributed the whole work in such a way that even the least qualified in the profession did not suffer from the want of subsistence. But in modern times, when the whole economics of production has changed, there is no room for a rigid system which makes no allowance for adaptability under changing conditions of industries, and which restricts a member of the community to remain in that particular profession which is his hereditary or ancestral one, whether there is the pecuniary incentive for him to remain there in the industry or not. The system is bound to create a spirit of fatal resignation among the people. It prevents the free flow of labour from profession to profession in accordance with the economic requirements, and thus tends to keep wages unequal in different professions. And since the system is based on the growth of a class of independent workers, with each one self-reliant and to himself, it makes the introduction of the system of large scale production difficult in the country. Caste prejudices are so manifold that they have got a ruinous and deadening effect on the economic activities of the people in many directions. The caste sentiment plays such an important part that a Brahman could never persuade himself to agree to the trade of shoe-making, nor could a low-caste man expect to be viewed with favour in the pursuit of what we call the learned professions. A blacksmith would not take to tailoring, even if he were assured of a better lot in the latter trade than in his

own. The fact is, that the supply of labour in particular industries is rigid owing to caste restrictions, and therefore the supply cannot always be adjusted to the conditions of demand in spite of surplus numbers in other professions. These conditions work as a deterrent to the free working of the economic forces of competition. A person born in low-caste conditions, cannot, under the present circumstances of things, expect to rise to his full economic height by sheer dint of merit. There is a general aversion among what we call the higher castes to the work of manual labourers, and the dignity of manual labour has yet to be brought home to the minds of certain classes of persons. On account of the westernising influence of English education and propaganda on behalf of that civilization by different agencies, however, caste-restrictions have relaxed to some extent, but religious prejudices die hard, and it will yet take a long time for the levelling tendency to obtain terms of absolute equality for all in the matter of earning a livelihood.

Laws regarding Property.—Rights of private individuals in landed and other forms of property have long become established. Thus, private individuals enjoy rights of accumulation, enjoyment and disposition of property, earned or inherited by themselves in almost all the civilized countries of the world. In the countries of the West, according to the law of primogeniture, the property rights on the death of the owner devolve on the eldest heir, leaving others to carve out their destinies as best as they could. The

system has tended to encourage the accumulation and growth of large amounts of wealth in the hands of single individuals. This has been very helpful to the development of large-scale production in the West. In our own country, however, the law of primogeniture is not applicable, except in the case of ruling princes and some other estates chosen to be declared impartible by custom or law. By the various Hindu and Muslim laws of the country, the property becomes divided among a number of family members, and large accumulations in the hands of individuals become impossible to obtain. Thus, many persons get a share in the property and not one, as is the case in the West. Our system has a very great merit in so far as it leads to an equitable personal distribution of wealth among different sections of the community, and promotes the growth of a middle class, an ideal for the achievement of which occidentals to-day are found using different kinds of devices such as the nationalisation of private property in certain forms and heavy taxation of the rich classes. There is no doubt that an enlightened opulent class, with the large savings that it is in a position to make, is a source of national strength. This also goes without saying, that the promotion of large-scale production, facilitated by the law of primogeniture in the West and difficult under our present conditions, is also a laudable object to achieve. But judging as a whole, the merits and demerits of our system would be found to be equally weighed. In the West, there are many landless labourers who

cannot but take to factory work. In our own country, our laws regarding succession and inheritance of property have encouraged the growth of independent workers and small peasant proprietors and cultivating tenure-holders. There is no doubt, that under our system there is loss of a certain additional amount of wealth that would have been earned under the other system, but the same is compensated to a certain extent by the fact that a more even distribution of wealth has tended to keep high the total welfare of the society as a whole.

Custom.—Custom and tradition mould to a certain extent almost all aspects of life everywhere. To an enlightened community the barriers of custom and tradition are easily breakable. But in a community like our own, though well on its way to the assimilation of a new and foreign type of civilization, however, most things go by custom and tradition. If there is early marriage and heavy birth-rate resulting from early and breathless multiplication, religious custom condones it; if indigenous sugar sells at a better rate in the same market than the imported sugar, even though the former might be less refined than the latter, religious sentiment allows it; if a cultivator takes 20 seers of seed on a promise to give 25 seers at harvest time even though he might be in a position to borrow money at the rate of 12 per cent. interest, he does so because custom binds him; if a Brahman on the point of starvation does not take to the job of a Kahar even though he might have the most handsome prospects in it, it is

because there is a prejudice among the higher castes against the menial's work; if certain cultivators would go on giving half the yield of their crops to their landlords, whether the price of the produce prevailing in the market is high or low, it is because it has become customary on their part to give that amount of the produce as rent; we would not agree to pay higher wages to certain classes of labourers because we have grown accustomed to pay them only at a particular rate. Thus, in the determination of rent, wages, interest and prices, in the choice of professions, on the increase or mobility of population and in so many other respects, as the above illustrations would tend to show, custom has got a great hold on the people of India in their economic activities. In certain matters custom is the primary regulator of economic forces, more so in the rural areas than in the towns, where the healthy influence of competition does not take long to make itself felt.

CHAPTER XI.

CAPITALISTIC WEALTH OF INDIA.

In the last few chapters we have discussed the two important resources of wealth-production in India, namely, the gifts of Nature and the man-power of India. We have also shown the volume of production from certain important industries, and the distribution of population among different industries. The essential relation between the population of a country, and the amount of wealth produced in it, is that of welfare obtained by the former through the consumption of the latter. But all the wealth that is produced by us, is not used for the direct satisfaction of our wants. A part of the wealth that we produce, we keep aside in order to help us in further production. All such intermediate products that we produce, but do not use for the direct satisfaction of our wants and that assist us in the process of further production, are called instrumental wealth or capital. Different industries use different kinds of capital. The capital of an agriculturist, for instance, consists of his cattle, tools and implements, farm-houses, wells, water-lifting arrangements, seed and manure. The capital of a manufacturer, on the other hand, consists of his buildings, plant and machinery, his raw materials,

his stocks of commodities and many fittings and fixtures. The capital of a small artisan includes his small quantity of raw materials, his small tools and implements with which he works, and substances that he uses for his industrial operations, and any open or closed space or yard that he has for carrying on his art or craft. There are such other more organised forms of capitalistic wealth as the means of communication and transportation, any artificial means of irrigation, and such other forms of public wealth as bridges, yards, ferries, and public buildings. All the above forms of wealth, and numerous others that it is impossible to mention, are extensively used in the production of further wealth. It is a matter of common knowledge in Economics that the use of artificial aids in the form of capital immensely increases the productive capacity of land and labour. How the necessary amounts of money are furnished in order to purchase all the above more important forms of capital that have been mentioned, and further in order to provide working capital to run industries, agriculture and other businesses, we shall discuss elsewhere at a later stage. Suffice it to say here, that the use of capital has made goods more abundant at a low cost, and in different varieties. Many things that could formerly be used only by the rajahs and big landlords, owing to their scarcity and prohibitive cost, can now be freely used by the general public, owing to their abundance made possible by the increased use of capital in various forms.

Let us now see, how far India is actually equipped in the more important forms of capitalistic wealth. We shall discuss them under three heads: (i) Buildings and machinery. (ii) Means of communication and transportation. (iii) Sources of irrigation.

BUILDINGS AND MACHINERY.

Buildings and machinery used for productive purposes, form a very important class of instrumental wealth in every country, including India. Our cultivator has no farm-buildings worth the name, and practically possesses no agricultural machinery. His farm implements are comparatively few in number, simple in kind, small in size, obsolete in character, and very insignificant in value. The fact is that, owing to the smallness of holdings, cheap labour, primitive character of our agricultural industry, and lack of any training on the part of those who are absorbed in agriculture, the idea of the use of large amounts of capital for purchasing more advanced types of labour-saving implements and machinery worked by motive power is absolutely foreign to our cultivators. Thus the plough, the old, old-fashioned plough, that has been in use since the time of Manu, is the principal implement, supplemented by scarifier and seed-drills in the Deccan. The other implements are bullock hoes, harrows, levellers and cold-crushers. Hand-tools include crow-bars, *kodali*, pricks, sickles, and sieves. Owing to the very small value of all these forms

of agricultural tools and implements, no record of their existence has ever been kept. The two most important forms of agricultural capital, for which records are available, are ploughs numbering over 27½ million and carts numbering about 6.94 million in 1920-21. Agricultural buildings fare no better. If at all, farm-houses to-day may include small manure-pits, cattle-sheds, granaries, fodder stores, cane-pressing houses, and houses for chopping fodder and keeping other agricultural tools and implements. All these are mostly kutcha houses, and some of them even may not be possessed by all the agriculturists. The value of this kind of agricultural capital is also very small. Only a part of the cow-dung and farmyard manure available is used as manure, the rest is used as fuel. There are no fencing arrangements, no farm roads, no farm-houses of a good character, no pumping or other installations, no use of machinery or motive power. The number of agricultural wells in the country is small, and even many of them are kutcha wells that serve only for very small periods. The water-yielding capacity of these wells is also very small, and water-lifting arrangements are very crude, inefficient, inadequate, and unsatisfactory. The cattle used for agricultural purposes are also poor in quality and inadequate in number for the purposes of serving the agricultural population well. With such unsatisfactory forms of capital as our cultivator now uses, it is no wonder that the agricultural yield per acre in India is perhaps the lowest of all the civilized countries.

The number of modern large-scale farms in the country, capable of making use of more advanced types of tools and implements, power-worked machinery, selected seeds, scientific fertilisers and all the up-to-date scientific methods of cultivation is very small. It was computed in 1908, that farmers in Great Britain used 35,000 engines for various purposes and developed 200,000 H.P. for agriculture. The use of motor and power-driven tractors, it is further stated, has since then very much increased. With a better organisation of the Indian agricultural industry, the cultivators here should be in a position to extensively use labour-saving devices of an improved type, and power-driven machinery for ploughing, reaping, threshing, water-lifting, and for such other purposes as fibre and oil-extraction, wheat-grinding, paddy-husking, coffee-pulping, tea-manufacture, sugarcane-crushing, preparation of bone manure and chopping of cattle-food. Within a few years, 1,000 pumping stations were built in Southern India alone, and their number could be enormously increased. If 5 per cent. of the existing wells have pumping installations—numbering 300,000 sets—constructed at a cost of 50 crores of rupees, 16 million acres of area will be irrigated, and the consequent gain in agricultural production would be enormous. Similarly, if power plant for cane-crushing is universally adopted,—the cost of which for the whole of India has been estimated at 30 crores of rupees—the yield would be increased at least by 10 per cent. besides a reduction in the cost of extraction.

Machinery, in a similar way, can be introduced in several other directions, such as oil-extraction, with considerable profit to all parties concerned. The fact is, that the agricultural and subsidiary industries to-day are run practically without any modern forms of capital, and there is vast scope for the sinking of capital in numerous most advantageous forms. The yield per acre can be considerably increased, if larger and larger capital is used for agricultural requirements.

In the few paragraphs above, we have shown the existing position with regard to agricultural capital, and the vast scope that there is for the improvement and development of Indian agriculture by the investment of new forms of capital. The capital of our artisan classes is equally poor. They use very low-priced tools and implements. Weaving is the most important cottage industry. The total number of hand-loom was counted in some provinces at the time of the last census, with the following results in the case of important ones: Assam over 4 lakhs, Bengal over 2 lakhs, Bihar and Orissa over $1\frac{1}{2}$ lakhs, Burma over $4\frac{3}{4}$ lakhs, Madras over $3\frac{1}{2}$ lakhs, Punjab a little less than $2\frac{3}{4}$ lakhs, Hyderabad over 1 lakh.

The capitalistic wealth of our modern industries, however, is very important, and forms an appreciable part of the industrial capitalistic wealth of the country. The number is too small in proportion to the size, population and resources of the country, but the part played by it in the economy of the nation is by no

means small. The total number of factories using power-driven machinery, and employing not less than 20 labourers, was 3,957 in 1921, employing 12,63,000 labourers of all kinds, skilled and unskilled, male, female and children. The number would be larger if factories using power of steam, oil, gas, water, electricity, but employing a smaller number of labourers, were also included. It came to 8,015, distributed as follows: Steam, 5,293; Oil, 1,335; Water, 85; Gas, 165; Electrical energy brought from a distance, 717; Electrical energy generated at premises, 420. Total number of all establishments using mechanical energy 8,015. As already mentioned, the above number is incommensurate with the resources of the country, when we find that Japan had 24,000 factories and the United States of America 290,000 in 1919. Thus we find that there is enormous scope for the sinking of capital in such fixed forms as buildings and machinery, in order to develop the industrial production of the country. The necessary amounts of money, in order to start and promote industrial development, should be found by means of starting new joint-stock companies, industrial banks and syndicates, investment corporations and such other institutions, the sole object of which may be the underwriting and promotion of the shares of new industrial concerns and the extension and financing of the old ones, for the limitations of our ordinary joint-stock or commercial or deposit banks should be clearly recognised. They cannot from the very nature of their operations provide industrial

finance. With short-term deposits it would be bad banking on their part to grant long-term loans for sinking in plant and machinery. Most of the above forms of instrumental wealth, an account of which we have given above, are classed as fixed capital, money sunk in the case of which is not easily realizable and is locked up for ever, and you cannot have it back unless somebody else may be willing to make a similar investment in your place. Therefore, there is the special necessity of having special institutions providing facilities for permanent or long-term industrial finance.

CHAPTER XII.

CAPITALISTIC WEALTH OF INDIA.

SOURCES OF IRRIGATION.

India is predominantly an agricultural country with a population, over two-thirds of which is engaged in agriculture. Her agriculture is a gamble in rains. What power is to manufacturing production, water is to agricultural production. Artificial irrigation facilities, therefore, constitute one of our most important forms of capital goods. Irrigation increases agricultural efficiency as also the yield from land. The productive value of this form of instrumental wealth cannot be over-emphasised. In countries with a temperate climate, such as England, irrigation is a rare luxury, the farmer drains the surface water off his fields; but in a hot country like India with dry and porous soil, incapable of retaining moisture for a long time, water is specially necessary to fertilise the fields.

Artificial irrigation is a costly affair but the advantages derived from it are correspondingly great. They are chiefly as follows: (i) The supply of water by irrigation is more certain and regular than that by rain, even in regions where the rainfall is generally plentiful, and that of itself increases the productiveness of

irrigated crops. (ii) Irrigation water is generally more or less rich in fertilising ingredients according to circumstances. Flood irrigation by "red water" of the Nile in Egypt makes manuring unnecessary there. In India, it is found that as a general rule irrigation doubles the yield of crops off the same land. (iii) Irrigation by flooding is sometimes of service in washing away noxious constituents from the soil. (iv) Irrigation often enables valuable crops to be grown in place of inferior ones. In India, there has been a special stimulus to the growth of commercial crops as a result of irrigation works. (v) It renders cultivation possible in some cases during the whole period of the year, for which the temperature is suitable in the irrigated region. Double cropping is thus made possible in many cases, by artificial irrigation facilities.

Let us now see in what parts of the country artificial irrigation facilities are specially necessary. Although the average rainfall for the whole of India is 45 inches, its local and periodic incidence is very uncertain. India may be divided into four great regions in respect of the distribution of her rainfall: (i) The Ganges valley from the delta up to the Jhelum and Assam, and Eastern Bengal, is a well-watered area; the rainfall is heavier as we go eastwards or northwards, and gets smaller westwards and southwards. (ii) Burma and the West Coast are also splendidly supplied with rain; the East Coast is also fairly well-supplied with rain. (iii) In the Tableland region of the Deccan and Central India the rainfall is scanty and

precarious. (iv) Rain is practically unknown in certain parts of the Indus valley, including places like Sind and West Rajputana.

Famine conditions do not exist in those parts of the country which are well-watered by rain. Cultivation is assumed to be safe in those parts of the country, *e.g.*, Lower Burma, Assam, Eastern Bengal, and the Ghats, where the annual rainfall is in excess of 70 inches. But cultivation is exceedingly precarious where the rainfall is small, uncertain or irregular. And famine conditions in such areas can be prevented only with the aid of artificial means of irrigation. For raising, therefore, particular crops like rice and sugarcane, which require watering at short intervals, the aid of artificial irrigation is certainly needed, except in a few favoured districts. Rain-weather crops do not in some places generally require irrigation, but the cold-weather crop is very largely dependent on irrigation. Summing up the whole position with regard to the necessity of artificial irrigation, we might say that artificial irrigation facilities in India are needed in the inverse proportion to the existence of rainfall in different parts of the country. There are parts of the country where no crops can be grown without making the existence of irrigation facilities possible.

The Indian Irrigation Commission of 1901—03 recorded that between the area in which the rainfall is invariably sufficient and that in which it is so scanty that no agriculture at all is possible without an irrigation system, there lies a tract of nearly a million square

miles which, in the absence of irrigation, cannot be deemed to be secure against the uncertainties of the seasons and the scourges of famine. Let us now see how far we are supplied with artificial means of irrigation.

Artificial irrigation in India has existed from very ancient times. Our old rulers, both Hindus and Muslims, undertook the construction of irrigation works on a small and simple scale. The most important irrigation works in India, have, however, been built by the British Government. The irrigation system of India may be divided into three kinds of irrigation works: (i) wells or lift works; (ii) tanks, storage, or reservoirs; and (iii) canals. Various classes of irrigation works watered the following area in British India in 1921-22:

Government canals	...	20½	million	acres
Private canals	...	2.67	"	"
Tanks	...	7	"	"
Wells	...	12.12	"	"
Other sources	...	5.5	"	"

The above figures represent a total of over 48 million acres of irrigated area in British India, exclusive of Indian States whose irrigated area is estimated to come to over 8 million acres. The net area sown in 1920-21 in British India and the Indian States came to 261½ million acres out of which thus a little over 57 million acres or 21 per cent. was irrigated from all the sources including the Government irrigation works,

wells and tanks. The British Provinces had the following shares in the irrigated areas in 1920-21: The Punjab 27 per cent., the United Provinces 23 per cent., Madras 19 per cent., Bihar and Orissa 12 per cent., Sind 6 per cent., and the remaining provinces 13 per cent. Let us now examine the existing position of each of the three important kinds of works of irrigation:

Wells.—A very large area is irrigated by the cultivators themselves, without assistance from Government, by the use of such measures as wells, tanks and temporary obstructions to divert water from the streams on to the fields. Well-irrigation is mostly found in the Punjab and the United Provinces. Wells in the former province are well-built, while in the latter require constant repairs. Wells are responsible for one-fourth the area under irrigation. Their number in the Punjab alone was 267,000, irrigating an area of 3.5 million acres in 1920. There appears to be a very bright future before well-irrigation in India. With pumping installations made widely popular, well-irrigation can extensively increase the yield from the soil. It has been estimated by the Industrial Commission that 300,000 pumping sets can irrigate a further area of 16 million acres, the result of which can be easily imagined on the produce, when we take into consideration the fact that while the average value of dry crops is estimated only at Rs. 15 per acre, the average value of irrigated crops comes to Rs. 50 per acre. All this shows, to what a great extent agricultural efficiency is

increased on account of the artificial irrigation facilities.

Tanks.—Tank irrigation is also an old form of irrigation in India. It is extensively practised in the Deccan. In Madras alone, there are about 50,000 such tanks, irrigating about 3 million acres of area. This number includes from ponds of ordinary size to very big lakes of several miles' length. These works are differently owned and controlled by private individuals, village communities, local bodies and the Government.

Canals.—By far the most important modern artificial means of irrigation in India are the canals. They are mainly the product of the British rule in India, although our Muslim rulers are also known to have undertaken the construction of some canals. They are divided into two classes—those drawing their supplies from perennial rivers, and those which depend upon water stored in artificial reservoirs. The former are mainly found in connection with rivers which rise in the Himalayas, the snow upon which acts as an inexhaustible reservoir during the dry months of the year; the latter are naturally associated with rivers rising in the Peninsula Proper, where no such natural storage is available. These storage works are mainly situated in the Deccan, the Central Provinces and in Bundelkhand, some of them are so big as to be capable of impounding 20,000 million cubic feet of water. Perennial river canals also include a number of inundation canals. Perennial canals are provided with head

works, where some obstruction is placed in the bed of the river, and the water reaches the height required to secure admission to the canal. Within this class fall the great perennial systems of the Punjab and the United Provinces. There being no such means of controlling water in the case of inundation canals, water can reach them only when it rises in level in the bed of the river. The most important inundation canals in India are those of Sind. Indeed, the whole of Sind irrigation is of this nature. They also exist in the Punjab, drawing their supplies from the Indus and its tributaries.

Before we pass on to irrigation finance, it would be well to mention briefly the Punjab Canal Colony system, an experiment which has immensely added to the wealth, prosperity and the population of the Punjab. When some new canals were constructed in the nineties of the last century, the idea was conceived of colonising the fresh tracts of the country brought under cultivation and irrigation by agricultural tribes, by offering the latter special concessions and requiring them to do certain things. Sir Denzil Ibbetson, a shrewd civilian of the Punjab, who later became the Lieutenant-Governor of that province, first had this idea in his mind. The object of the new colonisation scheme of Sir Denzil was (*i*) to relieve the pressure on land in congested districts, and (*ii*) to colonise the new area with well-to-do farmers cultivating their own holdings with the aid of their families and the usual village menials. Grants of lands were

made to agricultural classes on different terms: (i) yeoman grants to attract the middle-class landed gentry, (ii) peasant grants, and (iii) capitalist grants. Thus the lower Chenab colony, which was established on the above lines, is now a very populous colony. The Jhelum colony was later established to facilitate horse-breeding conditions. The Lower Bari Doab colony and certain other colonies were established in order to promote the growth of a peasant proprietor class in the Punjab. The system has worked wonders in agricultural production in the Punjab. It has reduced pressure on land in congested areas, increased agricultural production and thus the wealth and prosperity of the agricultural classes, tended to the increase of population in the new colonised areas, and established a network of railways in the agricultural tracts, and has led to the establishment of many central markets for the handling of the increasing agricultural wealth of the province.

Irrigation Finance.—For the purposes of allotment of funds, the Government irrigation works were classified into productive, protective and minor works before the introduction of the Montagu-Chelmsford Reforms. Under the old rules, the productive works alone could be financed from the loan funds, and they were regarded as such, when they promised sufficient revenue, within ten years of their construction, to cover the working expenses and the interest charges on their capital cost. They irrigated $18\frac{1}{4}$ million acres, 8 million acres in the Punjab, $3\frac{1}{2}$ million in the Madras

Presidency, 3 million acres in the United Provinces and over 1 million acres in Sind. The return on their capital outlay was 9 per cent. Protective works were those which were constructed primarily with a view to the protection of precarious tracts and to prevent expenditure on famine relief. They were generally constructed out of revenue grants for famine-relief and insurance, and were not usually directly remunerative. Protective works irrigated about 8 lakhs of acres. Capital outlay on them amounted to 12 crores of rupees and return about 1 per cent. Minor works included those which were neither classed as productive nor protective. They included a few small works built, taken over, improved and maintained by the British Government. Inundation canals of the Indus and its tributaries in the Punjab and Sind, a number of old irrigation works and flood protection embankments in Burma and minor tanks and works of the Madras Presidency were included in them. They irrigated 8 million acres and the return on their capital outlay was 5 per cent.

Since the Reforms, however, irrigation has become a provincial reserved subject, and all works are classed either as productive or unproductive. All works can now be financed from loan funds. Provinces now possess the powers of borrowing money. Schemes costing 50 lakhs or over require the sanction of the Secretary of State.

India is said to be possessing the biggest and the most wonderful canal irrigation system in the world.

The extent of the progress already made in the construction of irrigation works may be judged from the following figures:

PRODUCTIVE.

Total mileage of main canals	...	15,171	
" " " distributaries	...	32,615	
Capital outlay on productive works	Rs.	56	crores.
Gross receipts	... "	9.58	"
Working expenses	... "	3.01	"
Net revenue	... "	6.56	"
Percentage on working capital	...	11.7	
Area irrigated	...	18½	million acres.

UNPRODUCTIVE.

Main Canals	... "	5,797	miles.
Distributaries	... "	8,343	"
Working capital	... Rs.	33½	crores.
Gross receipts	... "	1.06	"
Working expenses	... "	¾	"
Net revenue about	... "	31	lakhs.
Percentage on working capital93	
Area irrigated	...	2½	million acres.

The results of the Indian irrigation works up to 1923-24 have been summarised by the "India in 1924-25" in the following words: "During the year 1923-24 the total area under irrigation, excluding Indian states, amounted to some 26.5 million acres. This represents 11.9 per cent. of the entire cropped area of the country, but was 1.8 million acres less than the record area of 28½ million acres irrigated in 1922-23. The total length of main and branch canals and distributaries in operation amounted to some 67,000

miles; while the estimated value of the crops supplied with water from Government irrigation works was 147½ crores. The area irrigated was the largest in the Punjab, where about 10.2 million acres were irrigated during the year. In addition, 573,000 acres were irrigated from channels which, although drawing their supplies from the British canals, lie wholly in the Indian states. Next among the Indian provinces came the Madras Presidency, with an area of nearly 7 million acres; followed by Sind with 3.4 million acres. The total outlay on irrigation and navigation works, including works under construction, amounted at the end of the year 1923-24 to Rs. 89.34 crores. The gross revenue was Rs. 10.65 crores and the working expenses Rs. 3.77 crores, the net return on capital is therefore 7.7 per cent."

It now remains for us to briefly describe the new projects that are under construction. The Sarda Kutcha Feeder and the Sarda Oudh canals providing irrigation to the North-Western districts of Oudh and some parts of Rohilkhand, consisting of 478 miles of main canals and branches, 3,370 miles of distributaries, and 100 miles of escapes, will irrigate nearly 1.4 million acres and produce a return of 7½ per cent. on the estimated capital cost of £5 million. Rs. 2,18 lakhs have, up to 1923-24, been already spent on the two parts of the Oudh canal system. The next important project under construction is that of the Sutlej Valley canals, consisting of four weirs, three on the Sutlej and one on the combined Sutlej and Chenab, with 12 canals

taking off from above them, intended to irrigate over 5 million acres of land in the Punjab, and the Indian states of Bahawalpore and Bikaner, including as much as $3\frac{3}{4}$ million acres of desert land, which would come under cultivation for the first time. Rs. 4,30 lakhs were spent on it up to 1923-24. The revised estimate for the scheme amounts to £13.2 million. The third important project is the Lloyd (Sukkur) Barrage project in Sind, consisting of a barrage about a mile long, from above which 7 canals will take off, irrigating over 5 million acres of area, over 3 million acres of which at present is entirely uncultivated. The scheme is likely to cost £12 million. The Nira Valley Development project in Bombay is intended to irrigate an additional area of 35,500 acres of a very precarious nature. Another important project is that of the Cauvery (Metur) Reservoir in Madras, irrigating a third of a million acres, constructed at an estimated cost of £4 million with the prospect of yielding a revenue of 7.6 per cent. on the estimated capital cost. When all the projects that are now under construction, and investigation are ultimately completed, they are likely to irrigate an area of 40 million acres. The total area irrigated by canals may even come to 50 million acres ultimately.

CHAPTER XIII.

CAPITALISTIC WEALTH OF INDIA.

MEANS OF COMMUNICATION AND TRANSPORTATION.

The means of communication and transportation are an indispensable concomitant of modern civilization. They form a very important class of instrumental wealth. This class of wealth is mostly owned by corporate bodies and the state, and rarely by single individuals. They help in the creation of what we call place utilities in production. They have an important bearing on the development of exchange and markets. They increase land values, make labour more mobile, enable a greater division of labour among different industries and countries, determine the geographical distribution of industries, break economic circles, and thus tend to equalise prices, and in a country like India play a very important part in relieving distress in the famine-stricken areas by rapid distribution of food-stuffs. The fact is, hardly anything can be produced on a large scale without the participation of some transportation agent. Efficient means of transport are a necessary accompaniment of the modern economic organisation, in which production takes place on a large scale, raw materials, coal, etc., come

from distant places, and the commodities produced are sometimes required to be distributed not only in different parts of the same country, but over the whole surface of the globe. Cheap carriage widens market for the sale of commodities. But transport would not develop, unless there is a demand for an agency for the transit of goods. Thus, industrial and transport developments have to go side by side. The dependence is mutual and not one-sided. It is with the help of these modern rapid means of communication and transportation, that our big cities have been growing in size, for they make the inflow of the requirements of life sure. To what extent huge congregation of population at particular places has been made possible by the modern means of transport, may be judged from one single illustration. Railways, it is stated, bring into London everyday 500,000 tons of meat, the same quantity of fish and 13 million tons of farm produce. Facile transportation is the key to modern industrial organisation, and enables the development of the resources of a country. We have now to see what the more modern means of communication and transportation in a country are, and how far we are provided with them. The most important means of transportation in a country are roads, railways, tramways, and waterways. To these must also be added such other means of communication as post, telegraph, telephone, radiograph, and the aeroplane.

The old means of communication in India were slow, few and far between. For transport purposes

pack-animals, such as horses and camels, bullock-carts, village pathways, rivers, and such of roads and canals, as were then available, were ordinarily used. The advent of British rule in India has completely revolutionized our transport system, both external and internal. The steamer has largely replaced the sailing ship, and railways, boats, carts and pack-animals.

Roads.—Although railways are by far the most important means of transportation in India, they are very largely supplemented by a network of trunk-roads, both metalled and unmetalled, whose mileage comes to 216,000, including 55,000 miles of the metalled roads. This small mileage is much too inadequate for the requirements of the country. On the country side, the means of communication remain substantially the same as of old. With the extension of the railway system, it has become more and more necessary to construct roads to feed the railways. Before the advent of railways, roads were the only means of communication for the exportation of surplus produce. At present, the economic loss caused by the inaccessibility of many agricultural districts in the rainy season is very great. In sandy, hilly and forest-covered tracts and in other parts of the country, where railways have not penetrated, pack-transport still holds an important share of long-distance traffic. The opening of railways has created a demand for road-construction, which must be met by the local and provincial bodies. The difficulty is that the finances of the local bodies are very meagre in India. These bodies, therefore, cannot

undertake any bold programme of road-construction. The recent Taxation Enquiry Committee has, however, recommended the establishment of Provincial Road Funds in order to encourage and stimulate road-construction. Motor transport made its appearance in India during the life-time of the present generation, but it has not developed in this country to any very considerable extent. Of late, however, "in the districts surrounding many large towns, light motor lorries are coming into high favour with those villages which lie upon practicable roads. The establishment of omnibus-services by private enterprise for rapid communication between outlying hamlets and the nearest market centre, has already proved commercially profitable." Motor transport has still not made much headway in India. It has developed so much in some states of the United States of America, that most farmers use motor-cars, and there is said to be an average of one car for every 5 persons.

Railways.—Railways, however, as has been already remarked above, are the most important means of transportation in India at the present time. The improvement in railway communications in recent times has played a most important part in the internal development of the country. They have brought the different parts of the country closer. "Before railways were constructed," observes Mr. K. L. Datta in the Prices Enquiry Committee Report, "the cultivator derived little benefit from an abundant harvest. His markets were confined to a small area,

and if the supply was greater than the demand, as it would be in a good year, prices fell and he lost the profits from larger yield, and sometimes found it more economical to leave part of his crop uncut. Railways have altered these conditions. They have rendered possible the transfer of supplies from areas of plenty to areas of scarcity. The smallness of the variations in prices in recent years all over India, even in years of famines, and the feasibility of alleviating distress at a comparatively small cost, are perhaps the best justification of railway extension. When one area is suffering from famine, another area is likely to have an abundant harvest, and it is possible for the surplus produce of one part to supply the deficits of another. In fact, famine no longer means scarcity of food-supplies but mere scarcity of money to buy food, which is always less difficult to meet." "The advent of the railway," further observes the Report, "has been of special advantage to the peasantry. In all the large productive tracts, the introduction of railways is usually followed by the substitution of central markets, where the producers are brought face to face with dealers and brokers, and prices are no longer determined by the village shop-keeper who would take over the crop from the cultivators at his own valuation, which is not often that of the market at which he himself disposes of it. The villager is thus brought into touch with the outer world, he learns the ways of trade and reaps the profits of the bountiful harvests." Social and political influences from railway construc-

tion have been no less. Travelling has become cheaper, defence of the country is less difficult and more secure owing to the construction of strategic lines on the N.-W. Frontier, greater peace and order is maintained in the country, and the spirit of nationalism has very greatly developed. We shall now see how this railway development has taken place in India.

Railway construction began in India in the middle of the last century. In a minute that Lord Dalhousie addressed to the Court of Directors at Home, he pointed out how a vigorous programme of railway construction would result in consolidating the Indian Empire and in attracting British capital and enterprise to India on a large scale. The experiment of guaranteed company system was first tried for some time, whereby the Government guaranteed to pay interest at the rate of 5 per cent., irrespective of profits, to all companies who stipulated to undertake the construction of railways in India, in consultation with the Government of India, subject to certain powers of control and right of re-purchase of the line. In spite of the many facilities and concessions that the Government offered to the promoters of railway construction, the offer did not evoke much enthusiasm and railway construction was very slow. In March, 1869, it was decided to push railway construction by the direct agency of the State itself. For ten years, railways continued to be built by funds raised by the Secretary of State for India in England, on the security of the Indian revenues. A recognition of the services that railways could render

in times of famine and war, was brought home in the famines of the seventies and the Afghan War. State construction was then sought to be supplemented by private enterprise. To-day railway construction is undertaken both by public and private enterprise. This in a nutshell is the history of railway construction in India. From 5,369 miles in 1872, they have increased to over 38,000 miles in 1924-25, over 27,000 miles of which are State-owned. Although in the last decades of the 19th century railways were a burden on the tax-payer in India, and caused a loss of about 50 crores of rupees, in the first two decades of the present century, however, in spite of the income from railways being fluctuating yet steady, they have contributed no less than 100 crores of rupees to the relief of the Indian tax-payer. During the war, they yielded on an average an income of about 10 crores of rupees per annum. The total capital invested in railways up to the year 1923-24 came to over 717.9 crores of rupees, bringing a return of 5.48 per cent. on the capital outlay. About half of the total mileage is broad or standard gauge, and the rest of the mileage includes meter and narrow gauge lines and light railways. Gross earnings of State-owned railways came to Rs. 94.89 crores in 1923-24, and the working expenses in the same period came to 88.42 crores of rupees, leaving a net gain to Government of 6.47 crores of rupees. Some 480 million passengers travelled on the State railways in a year and 85 million tons of goods were carried. Every one travelled twice, and

on an average 34 miles. During the course of the address that Col. Watson, Agent of the N.-W. Railway, delivered at Simla as President of the Indian Railway Conference Association, on October 7, 1926, he stated, "besides a programme of extension of 6,000 miles of new railways in five years, India to-day has a mileage of 38,589 miles built at a cost of 754 crores, handling 600 million passengers and 80 million tons of goods per year. The railways in India last year (1925-26) earned 113 crores and expended 91 crores, while the staff employed numbered 7,50,000." On the same occasion it was stated by Sir Charles Innes, Member for Railways in the Council of the Governor-General of India, that railways to the extent of 3,000 miles are under construction, and by 1932 a further mileage of 9,000 is expected to be added. Sir Charles further stated that the Indian railways are the cheapest in the whole world, the average rate per passenger being 3.7 pies per mile.

The above figures relating to our railways show the huge character of our capital outlay on, and the importance of, our railways as a source of income in the finances of the country. Some other railway problems have, during the last half a dozen years or so, received a great deal of attention from the Government and the non-official public in India. During the recent great war, all regular programme of railway renewal and construction was held up owing to the exigencies of the war. This necessitated expenditure on railways with a vengeance in the normal times following the

war. A programme of railway rehabilitation and construction has been drawn up for a period of five years, involving an expenditure of 150 crores of rupees. This has been sanctioned. Then, the railway finance has been recently separated from the general finance, in order to give a freer hand to the railway administration in the working of the railways, while assuring a definitely ascertainable contribution to general revenues year after year from the railway undertakings. The Government has also undertaken the direct management of the East Indian and the Great Indian Peninsula Railways, State-owned lines that had so far been managed by companies of British domicile. Certain very important and very far-reaching results are expected to follow from the direct assumption by the State of the management of her great railway concerns. Besides the economies and greater convenience that may result from the overhauling and the regrouping of all the State-owned railways, the railways, under State-management, will, it is hoped, be more amenable to public opinion and criticism, give concessions in freight rates to infant industries, provide better facilities for the third-class passengers from whom the major portion of the Indian railway earnings are now made, make a greater use of the local sources of supply in the purchase of railway stores, carry out the policy of Indianisation of the higher services in railways to a greater extent, and, finally, stimulate the development of Indian nascent industries by a judicious system of freight rates, and not give

preferential treatment to imports prejudicing their growth, to hear appeals in which connection a Rates Tribunal has also been recently set up.

Tramways.—Although the water-power resources in India are unlimited, electric motors, railways or tramways have not made any progress in India. An experiment of electrification of railways was recently made on the G. I. P. system in the neighbourhood of Bombay. Its success may be judged from the fact that it will be possible to travel more than 11 miles at a cost of one anna. If electrification of railways is carried on in the congested towns, it will considerably reduce the pressure of population, and conduce to greater efficiency and better health. Tramways in India are found only in the case of very big commercial centres like Delhi, Cawnpore, Bombay and Calcutta.

Waterways.—Prof. Shah of Bombay observed recently, that water transport is ten times cheaper than any other form of inland transport. His statement is substantially borne out by the fact, that while the freight for the carriage of a ton of steel from the continent of Europe to an Indian harbour—a distance of 6 or 7 thousand miles—is £1, or a little over it, it costs Rs. 50 or so to take the same goods from an Indian harbour to an upcountry station—a distance of as many hundred miles. The fact is, that water transport is still the cheapest and one of the most important external and internal means of transport in all the civilized countries of the world. In India, we have many great rivers. But they are unevenly

distributed, some of them are fully utilized for irrigation purposes, and some others are naturally unfit for navigation. In North-eastern India, however, waterways are still extensively used for navigation purposes. In the nineties of the last century, the value of trade carried on the Ganges in the single province of Bengal amounted to Rs. 40 crores annually. A greater portion of that has died out now, owing to the competition of railways. The number of navigation canals in India is small. In 1920-21 there were open 4,471 miles of canals, on which plied about $2\frac{1}{2}$ lakhs vessels carrying $2\frac{1}{2}$ million passengers and about $14\frac{1}{2}$ million tons of cargo. All irrigation canals in India are not navigable. While the former have to pass through the agricultural tracts, the latter have to connect industrial centres. The Godavari and Kistna canals in the Madras Presidency with a total mileage of 878, the Orissa canals 280 miles, the Upper and the Lower Ganges canals, and the Kurnool-Kuddapah canal in Madras are both irrigation and navigation canals. Buckingham canals near the Coromandal coast, 262 miles in length, the Godavari works, 168 miles, and the Calcutta and the Nadia river canals, 288 miles, are purely navigation canals. The fact is that if navigable rivers and canals were made, and if a systematic policy for the development of the inland water transport had been pursued, we would not have been left entirely at the mercy of the railways.

Our deficiency in the case of coastal and foreign shipping is no less. Practically all the shipping of

Indian harbours is foreign, not indigenous. If for our inland trade we are almost entirely dependent upon railways, we are absolutely dependent on foreign shipping for the carriage of our entire foreign sea-borne trade, amounting to about 600 crores of rupees annually. In the middle of the last century, there were 34,000 Indian-owned vessels, with an aggregate tonnage of $15\frac{1}{2}$ lakhs. On account of a peculiar system of freight rebates and other like devices used by the foreign shipping companies, and the advantages enjoyed by them, all the foreign traffic has been attracted to them, with the result that by the year 1900 the Indian tonnage had been reduced to the low figure of one lakh. Then again, India has a very big coast-line about 4,500 miles long, with about 236 ports, but there are only half a dozen developed harbours in the country. The coastal trade of the country, therefore, does not develop to the fullest extent. The relative position of India in the merchant-shipping of the world is shown by the fact, that she has only .3 per cent. of the total shipping of the world, as against 29 per cent. of England and 25 per cent. of U. S. A. The total tonnage of India, including Ceylon, was .23 million in 1922-23. Of the total volume of shipping in India in 1920-21, amounting to $15\frac{1}{2}$ million tons, only 1.2 per cent. was in the hands of Indians, 78 per cent. in the hands of British or British Indian interests, and the remaining 20 per cent. in the hands of other foreigners.

Other means of Communications.—Modern commercial intercourse would be impossible without an

agency for the rapid transmission of news. Among the other means of communications, posts and telegraphs are the most important, telephones have also made some progress in the big towns, but radiography and air-service have so far only made an appearance on the scene. There are nearly 20,000 post offices in India, with about 155,000 miles of mail lines, carrying over 1,375 million articles. The total number of inland and foreign telegrams came to 19 million in 1920-21. The telephone development in India is still in the infant stage. The telephone system is owned largely by the Government, but partly by private companies. In 1921-22 there were 255 exchanges with nearly 12,000 connections established by the Government, and 10 telephone exchanges with about 24,000 connections established by private companies.

CRITICISM OF OUR TRANSPORT SYSTEM.

Now it remains for us to see, how far the system of communications and transportation in India is efficient. Efficiency is judged in three ways: (i) whether it is adequate, (ii) whether it is speedy, and (iii) whether it is cheap.

(i) The transport system of a country should be so devised and managed that it may promote the harmonious development of a country. There is no doubt that our railways are spread over the most fertile and most densely populated parts of the country and connect all the large and important towns, particularly

the sea-ports, with inland centres of trade, but extensive areas where there are no modern means of transport still await development. The railways in India sometimes find it a bit too difficult to handle the growing volume of business in the harvesting seasons, much more so in times of emergency. When our railways were overtaxed for military exigencies, during the recent war, there occurred inordinate delays in goods traffic, and even passenger traffic had to be discouraged. Another illustration of the inadequacy of our means of transport is to be found in the fact, that at one time during the year 1920 more than one half of our railway goods waggons were engaged in the transport of one single commodity, namely, coal, and the general goods traffic thus suffered heavily for a long time. The overcrowding of third-class passengers on railways is so notorious that it needs no special mention. All these facts would tend to show, that our present system, although sufficiently good and workable, is inadequate for all the requirements of a big country like India. England, a much smaller country than India, has 50,000 miles of railways, and the United States of America a quarter of a million miles.

(ii) Railways no doubt have provided us with a speedy means of transportation, but " the distances to be traversed are enormous, the natural obstacles to be overcome in passing from one region to another are formidable, while even within a restricted area internal communications often break down altogether in the

rainy season. It is no uncommon occurrence in India for trunk-roads and railways to be cut off by floods, and for important market towns to find themselves entirely isolated from the neighbouring districts." However, the promptness with which railways have transported supplies from one part of the country to another, during famines and other emergencies, shows that they have vastly changed the conditions of affairs in the country for the better.

(iii) As compared to older means of transport, railways in India are indeed cheaper, but cheapness is a relative term. Our absolute dependence on our railways for almost all the important portions of our internal traffic, tends to make our railway system of a monopolistic nature. A monopolistic system has its grave inherent disadvantages. The monopolist sometimes dictates terms and disregards all considerations of efficient service. Indeed, varied forms of mechanical transport are a modern necessity, and the consumer of the service always stands to gain thereby. When there is competition among different forms of transport, greater facilities for all classes of traffic are provided in order to attract greater custom. In England, nearly all important centres of commerce and industry can be reached either by rail, boat or by motor. America also possesses a very highly developed motor transport system along with her railways. When after the war the railway workers in England threatened to bring all traffic to a standstill by means of a general strike, the motor transport men saved the nation from

the impending crisis. Monopolies in such trades are bad. They have a much more bending effect on enterprise than a healthy measure of competition. Cheapness can come through competition. If both motor and water transport develop in India, our transport system would become more perfect and much cheaper at the same time.

CHAPTER XIV.

TRANSPORTATION AND RURAL DEVELOPMENT.

An industrial revolution occurred in England during the last quarter of the 18th century. It was accelerated by a combination of many favourable circumstances. Oversea markets were obtained, and an effort to meet the external demand led to industrial improvements. Coal was used for smelting iron, which made machinery available. By several inventions of the time, *e.g.*, the fly shuttle, spinning jenny, and the power-loom, the output per man was considerably increased. The whole aspect of industry changed from small scale to large scale, which meant aggregation of large amounts of capital, and work done by large number of hired labourers under the guidance and control of the capitalist, with the tools and implements of the latter.

While the change from the artisan stage to the factory stage, with all its accompanying evils, was inevitable, and ultimately proved good for the society as a whole, a similar change in agriculture went on side by side with it. Agriculture now began to be carried on for the market, and not for the production of the necessaries of life that were needed by the producers.

More paying crops were grown, holdings were consolidated, and intensive cultivation was resorted to. All this meant much larger produce. The yeoman class that could not run abreast with the more progressive farmers, was squeezed out. Thus in the sphere of agriculture too, large-scale farming began and capitalism was introduced. The rural classes that lost their occupations owing to these changes in agriculture and industry, migrated to towns to seek employment in the newly started factories as best as they could. One important result of the revolution was the great cleavage between the two partners, in the industry, namely, the capitalist and the labouring classes.

Thus, it would be found that industrial progress in England was an all-sided growth: On the one hand there were the expansion of markets, development of communications, iron-smelting and the use of coal and inventions, and on the other the consolidation of holdings and the appearance of the large-scale producer in industry and agriculture—all, so to say, a kind of harmonious development.

But what is the position in India? The last three-quarters of a century have witnessed many economic changes, but the transition has been on altogether different lines. There is no doubt that factory production has been introduced in the country and agriculture has extensively increased, but the changes have been brought about by a different set of circumstances. In the pre-railway era, the village was the unit of production, as it still substantially is, and agriculture was

carried on mostly to satisfy the needs of the producing community. The country was divided into a number of economic circles, each independent of the other in respect of production and the satisfaction of requirements. Communications were few and far between. Intercircle exchange was small. Labour was immobile and production was carried on by the small-scale cultivator and the artisan. The country was extremely and indispensably dependent upon Nature for the production of its food-supplies. Famines frequently visited different part of the country and meant severe starvation and loss of life to large numbers of people. "In earlier times," says the Indian Industrial Commission Report, "every village not only grew most of its food, but either provided from its own resources or obtained from close at hand its few simple wants. Its cloth, and often the raw material for it, its sugar, its dyes, its oil for food or lighting, or its household vessels, and agricultural implements, were manufactured or produced either by the cultivator himself, or by the village craftsmen, who were members of the village community and were remunerated by a share of the produce. Money for the payment of the Government dues and for the purchase of metals or of luxuries was found by the sale of surplus food-grains or of agricultural and forest products required by neighbouring villages. These exchanges were effected and financed by the country traders, who were found mostly at the large villages or small towns that formed the centres of a series of economic circles, the radius of each of which

was measured by the distance to which the few local imports and exports could be profitably carried."

The above is a fair description of the country as a whole in the pre-railway era. The introduction of railways in India about the fifties of the last century brought about a considerable change in the situation. Let it be remarked here that railway development was not necessitated in India by industrial and agricultural development as in other countries, except in a few cases where it was the result of the development of agriculture, resulting from the construction of canals. Railways were originally constructed for the purpose of finding a market in India for the absorption of British goods. But their construction had important economic effects on the agricultural and industrial development in India. In India, the change from small-scale production to large-scale production in the sphere of industry has not been as absolute as it has been in the West, and large-scale farming, as developed in England as a result of the consolidation of holdings, has got no counterpart in India. Population has increased, means of communications have developed, factories have been established in some big towns like Bombay, Calcutta, Ahmedabad and Cawnpore, and the yield from agriculture has been increased by bringing fresh areas under cultivation and the construction of the artificial means of irrigation.

How railways have promoted modern industrial development in India, and how they have affected agriculture and other rural industries, we shall now

try to see. Factory development in the West led to similar attempts being made in India, where the demand for goods already existed, and raw materials for the development of modern industries on a large scale were available in large quantities at a cheap cost. The success of the cotton industry first started in Bombay, which later on expanded in other parts of the country, encouraged industrial enterprise in other directions too, and jute and other mills were started at Calcutta. The vast rural areas of the country, however, remained unaffected by this new tide of industrial development. The progress in industrial development was slow, confined to big industrial centres, and was quite incommensurate with the vast requirements and resources of the country. As mentioned above, the railways were originally constructed for the purposes of finding a market for the consumption of British goods and they tended not so much to the starting and development of industries on modern lines, as to the encouragement of imports of machine-made goods from abroad and the export, and the consequent production in larger and larger quantities, of food-stuffs and raw materials for industries. When communications developed and trade expanded, demand for such food-stuffs as wheat and rice and raw materials for industries as cotton and jute considerably went up. Specialisation in these particular crops began, specially for export, and a certain amount of care was also taken to improve the quality of the material, in order to enable the product to command a better price

in the foreign markets. In many cases, the cultivation of such non-food-crops as cotton, jute and seed developed at the expense of food-crops. Both external and internal demand immensely increased markets for agricultural produce. Larger areas came under cultivation, and greater produce was obtained by the construction of artificial means of irrigation. If, side by side with these changes, there had been the consolidation of scattered holdings, intensive cultivation according to scientific methods, and large-scale farming, the progress of agricultural development would have been complete. But that was not to be. Railways broke economic circles, and the external demand for agricultural produce and the demand from distant parts of the country raised prices. Agriculture became a very paying profession, but the pressure on the land became very great, partly owing to the rise in prices of agricultural commodities, and partly to the crowding of those to agriculture who lost their industries owing to cheap imported commodities. All these factors brought about enormous increase in rents and land values, and village capital became insufficient to handle all the work of trade and industry that is now there. Thus, railways no doubt tended to encourage agricultural production, but it remained on small scale, and is still carried on on unscientific lines.

The consequences of the introduction of railways on the rural industries were, however, very serious. The machine-made commodities, produced under a system of most perfect organisation, sold much cheaper

than the commodities produced by the artisans and small industrialists. The former hit the latter very hard. The competition between the two was unequal, with great disadvantage to the latter, and many of the latter gave up their old avocations and took to agriculture, which they thought to be the only mainstay of their lives. Many important cottage industries, such as those of indigo and colours, metals, printing, etc., almost completely died out, and others kept on struggling with considerable difficulty. The tendency of ruralisation of our population went on throughout the whole of the second half of the 19th century, till it was partly arrested by the modern industrial development.

As regards the influence of communications on labour, it distinctly became much more fluid and sought better avenues for employment. Its efficiency was not increased, but owing to scarcity its price increased. Higher purchasing power on the part of the agricultural classes, and cheap goods, meant a rise in the rural standard of living. Imported goods became popular, and import trade in them freely developed.

One more very important influence of railways on the economic life of the people must now be carefully noted. Famines were frequent in India and people died, in spite of the possession of money, simply because food-supplies were not available. Things have absolutely changed now in that respect, owing to the advent of railways. An individual or a section of the community should have purchasing power, and the

supplies can always be made available in any part of the country, either from other distant parts of the country or even from abroad, if need arises. Thus, Australian wheat and American cotton have been observed to be coming in the Indian market, on certain occasions. The fact is, that the intensity of famines has been very much modified, and no one can die of starvation if he has the wherewithal to purchase the food-stuffs.

CHAPTER XV.

FOREIGN TRADE OF INDIA.

The greatest achievement of our railways is that they have not only brought about the free flow of commodities in different parts of India, but have also facilitated the development of trade between India and other countries of the world. In the pre-railway era very few commodities crossed long distances in the country, much fewer the borders of India. Internal and external exchange has enormously developed as a result of the introduction of railways and—the still cheaper means of transport—the steamship. Different parts of the country have been knitted together, and the volume of trade, both internal and external, has extensively risen. India occupies the fifth position in the foreign trade of the world, the first four countries being the United Kingdom, the United States of America, France and Germany. The total foreign trade of India now amounts to some 650 crores of rupees annually, and the internal trade of the country is cautiously estimated at at least 4 or 5 times the foreign trade of the country. Specialisation has also been introduced to a certain extent in our agricultural production in different parts of the country, and the products of one part can be easily distributed in distant

parts of the country, leaving a surplus which is available for carrying on international trade. As agriculture is the main industry of the country, and the country is still far from advanced, India mainly produces food-stuffs and many raw materials for industries, both of which require small technical skill.

But if our internal trade is important because it ministers to most of our food and other requirements, its importance has now been overshadowed by our foreign trade, which has gradually been increasing in value and volume. Trade relations with foreign countries have been a very old feature of our economic activities. But trade in ancient times was small, few commodities were exported and imported, and it was carried on with a few countries. During the last hundred years, however, the volume of our foreign trade, the share taken in it by Indians, the variety and number of goods dealt with, our customers and methods of trade and commerce have all undergone a vast transformation.

Before we enter into any details regarding our foreign trade, it would be well to make at the very outset a few observations on the general features of our exports and imports. Our exports are mainly food-stuffs and raw materials, the most important items being cotton, both raw and in the shape of yarn and piece-goods; jute, both raw and manufactured; food-grains, including rice and wheat; tea; oil-seeds; hides and skins; and lac. Our imports are mainly manufactured commodities, the more important items

being cotton manufactures, machinery, iron and steel, sugar, railway plant, mineral oils, silk, hardware, motor-cars, and other miscellaneous goods, such as instruments and apparatus, liquors, paper, etc. As our exports are mostly agricultural products, they are dependent upon agriculture, which in its turn depends upon the South-western Monsoon. Thus, *our monsoon determines our agricultural produce, agricultural production determines our exports, our exports determine our purchasing power and the purchasing power determines our imports.* It is a frequent phenomenon that unfavourable monsoons in India are followed by a depression in our foreign trade. A famine in India brings about unemployment conditions in Lancashire. Another important feature of our foreign trade is, that our exports are in normal times heavier than our imports, and the difference between the exports and the imports, technically called the balance of trade, is partly adjusted by what are called the Home Charges, and partly by the imports of treasure in the form of gold and silver. Another important feature of our foreign trade is, that most of it is sea-borne, the more important countries with which we have trade relations being the United Kingdom and dominions, Japan, the United States of America, Germany, and other countries including Java, France, Netherlands, South America, China, and Belgium. The largest part of our foreign trade is with the United Kingdom, which gives us over 60 per cent. of our total imports and receives about 25

per cent. of our total exports. Although the number of our ports is very large, good harbours are few, the more important being Calcutta, Bombay, Karachi, and Madras, through which nine-tenths of our sea-borne trade passes. The last century has witnessed the gradual elimination of the Indian from this profitable branch of trade, most of it being carried on through the agency of the foreign shipping companies, banking houses, insurance and commission agents.

But while the more important section of our foreign trade is sea-borne, the land frontier trade is not inconsiderable. In 1923-24, it amounted to 36 crores of rupees, and represented the equivalent of 6 per cent. of the sea-borne trade, the more important countries with which land frontier trade is carried on being Afghanistan, Persia, Nepal, and Tibet. A part of our foreign trade includes re-exports that came to 13½ crores in 1924-25, and the principal items dealt with were raw and manufactured cotton, raw and manufactured wool, raw and dressed hides and skins, spices, sugar, and Persian carpets. Three-fourths of these exports are made from the port of Bombay, mostly to the United Kingdom, Japan, and Persia.

Effects of the recent War.—The recent war left a very serious mark on our international trade. It affected our volume and changed the direction of our foreign trade to a certain extent. It brought a small change in our customers and suppliers. The cost of production of commodities increased everywhere, prices rose all round, currencies were depreciated, and

exchanges were fluctuating. Productive capacity of nations decreased, and consequently the purchasing power of most of our customers also decreased a great deal. Imports were discouraged and this gave impetus to industrial development in India. But the period of boom was soon followed by a spell of depression all round. In our own country, the end of the second decade of the 20th century was marked by a great depression in trade and industry, on account of a variety of causes both natural and economic. With better currencies and more stable conditions in Europe, and as a result of a series of good monsoon years in India, we have, however, been gradually recovering our position. During the last few years, despite all the effects of widespread trade depression, India's exports expanded to Rs. 349 crores in 1923-24 and to 400 crores in 1924-25, as compared with Rs. 219 crores, the pre-war average. The volume of our export trade has now attained the pre-war level. It is a well-known fact that conditions in the European countries are still unsettled, they are far from stable at any rate. The rise in the prices of commodities of the last decade was much heavier in the case of the manufactured commodities than in the case of agricultural products. The production of the latter in India is mainly dependent upon good monsoons. And although we have been enjoying good monsoons during the last 3 or 4 years, we are not in a position to reap as much profit from our foreign trade as we should otherwise have done, had the recent fall in prices affected all kinds of

products in the same manner. Throughout 1923-24 India paid for her imports 90 per cent. in excess of what they would have cost in 1913-14, while she received for her exports an enhancement of only 45 per cent. In consequence, *the increased purchasing power resulting from expanded exports has produced a less than proportionate effect in the way of stimulating imports.* A striking example of this tendency is to be found in the case of Manchester piece-goods. The Indian cultivator, who is receiving for his agricultural products only some 30 to 40 per cent. above the price which they commanded before the war, has to pay an enhancement of about 170 per cent. for his piece-goods. Factors like these have prevented the imports from attaining their pre-war volume. They came to 250 crores of rupees in 1923-24.

Now we shall discuss the important details of our exports and imports, on the basis of the trade returns for 1924-25. Let us first take up the case of each of the important articles of export and import.

EXPORTS (1924-25).

Raw and Manufactured Cotton.—Raw cotton was the most valued article during the year under reference. The total quantity of raw cotton exported came to 594,000 tons valuing at 91.22 crores of rupees. Japan took half of our cotton, Italy about 15 per cent., China 8.5 per cent., Belgium 6 per cent., the United Kingdom and Germany, each, 5 per cent. Cotton manufactures

were also exported during the year to the extent of over 11 crores of rupees.

Raw Jute.—Raw jute was exported to the extent of 696,000 tons, valued at 29 crores of rupees. Germany and England each took over one-fourth of the total exports, the former a little more and the latter a little less than that quantity, France took 11.7, the United States of America 8.5 and Italy 7.2 per cent.

Jute Manufactures.—The exports of jute manufactures include, among other things, hessian and sacking, gunny bags and cloth. The former numbered 425 millions and the latter came to over 1,500 million yards, valuing at 51 crores of rupees. The United States of America took over a third quantity, Australia and Argentine took one-tenth, each, the United Kingdom 6.6 per cent., Java 3.1 per cent and Japan 2 per cent.

Tea.—Some 340 million lbs. of tea were exported, valued at some 33.39 crores of rupees. Nine-tenths of the exports were to the United Kingdom. Canada took $2\frac{1}{2}$ per cent. of our tea exports.

Food-grains.—The more important food-grains exported are rice, wheat, pulses, and barley. The total quantity of food-grains exported amounted to 4.26 million tons, valuing at 65 crores of rupees. The United Kingdom took one-fourth of the total exports, Germany 12.9 per cent., Ceylon 11.8 per cent., Straits Settlements 5.4 per cent. The total quantity of rice exported was 2.273 million tons, of wheat 1.112 million tons, of pulses 289,000 tons, and of barley 449,000 tons.

Oil-seeds.—The more important of the seeds exported are linseed, groundnut, rapeseed, cotton, castor and sesamum. The total amount of oil-seeds exported during the year under review amounted to some 1,328 million tons, valued at 33 crores of rupees. France took 27.8 per cent., the United Kingdom 24.1 per cent., Italy 14.7 per cent., Netherlands 7.8 per cent., Belgium 6.8 per cent., and Germany 7.4 per cent.

Hides and Skins.—Of the cow and buffalo hides, the former are more important from the point of view of exports. Among the skins, those of goats are more important. The total amount of hides and skins exported in raw form came to 48,000 tons, valued at 6.77 crores of rupees. The United Kingdom took 47.5 per cent., U. S. A. 18.2 per cent., Germany 12.6 per cent., Italy 5.3 per cent., Netherlands 3.3 per cent. The value of dressed hides came to a little more than that of raw ones.

IMPORTS.

Cotton Manufactures.—The more important cotton manufactures imported into India are grey, white, and coloured piece-goods, and twist and yarn. The yardage of the group of piece-goods came to 1,800 million. The value of the total imports of cotton manufactures was 86.57 crores of rupees, the share of the United Kingdom being 80.5 per cent., and that of Japan 13.8 per cent.

Iron and Steel.—The total imports of iron and steel of all kinds amounted to 869,000 tons, valuing at 19

crores of rupees, the United Kingdom supplying 63 per cent., and the shares of Belgium, Germany and U. S. A. being 19.6 per cent., 7.7 per cent., and 3.6 per cent., respectively. The demand for iron and steel is so great that, in spite of an increase in our own production of iron and steel, we are importing larger and larger quantities of steel from abroad.

Machinery.—The more important items under this head are cotton and jute machinery, prime movers, electrical plant, sewing machines, boilers and mining machinery. The total value of imports came to 14.74 crores, United Kingdom's share being 84 per cent., U. S. A.'s share 9.5 per cent., and that of Germany 3.5 per cent.

Hardware.—The total value of the imports of hardware came to 5 crores of rupees. United Kingdom gave us 40 per cent., Germany about 27 per cent., U. S. A. 15½ per cent., and Japan 5½ per cent.

Motor-cars and Motor-cycles.—The total number of motor-cars, motor-cycles and busses came to 12,000 in the year, valued at 4.41 crores of rupees. U. S. A. was responsible for 35.5 per cent. of the trade, U. K. for 29.3 per cent., and Canada for 27.1 per cent.

Railway Plant.—The imports of railway plant were valued at 6 crores of rupees. U. K. was responsible for nine-tenths of the trade. Other suppliers included Belgium, U. S. A. and Germany.

Instruments.—Instruments valued at 3 crores of rupees came mostly from the United Kingdom, which

gave us two-thirds of the total quantity. Other suppliers were Germany, U. S. A. and Japan.

Silk Manufactures.—The imports of silk manufactures were valued at 5 crores of rupees. The principal suppliers are Japan, China, Italy and also U. K. to a certain extent.

Sugar.—The total imports of sugar came to 729,000 tons, valued at about 21 crores of rupees. Java was responsible for three-fourths of the trade. Other suppliers included Mauritius and Germany, which gave us 17.4 per cent. and 2.9 per cent., respectively, of the total imports.

Liquors.—5.3 million gallons of liquors were imported during the year, valued at 3.28 crores of rupees. The United Kingdom gave us nearly 60 per cent., France 18 per cent., and Germany 11 per cent.

Mineral Oil.—We imported 188.18 million gallons of oil valued at 6.69 crores of rupees. U. S. A. gave us nearly 60 per cent. of the imports, Persia 16 per cent., and Borneo over 11 per cent.

Paper.—Some 1.69 million cwts. of paper was imported during the year, valued at 3 crores of rupees. United Kingdom gave about 43 per cent., Germany 21 per cent., Sweden and Norway $8\frac{1}{2}$ per cent., and $4\frac{1}{2}$ per cent., respectively.

DIRECTION OF TRADE.

The diagrams on the opposite page show the direction of our trade. The most important countries with which we trade are the United Kingdom and other

parts of the British Empire, Japan, U. S. A., Germany, Java, and Belgium. The United Kingdom gave us 54 per cent. of our imports and took $25\frac{1}{2}$ per cent. of exports, British dominions and other possessions of the Empire gave us 8 per cent. of our imports and took over 13 per cent. of our exports. The whole British Empire enjoyed 47.7 per cent. of our total foreign trade. Imports from U. S. A. amounted to 5.9 per cent. and exports to 8.8 per cent. Imports from Japan came to 6.9 per cent. and exports to the same country to 14 per cent. of the total exports. Germany gave us 6.3 per cent. of our imports and took 7.1 per cent. of our exports, while Belgium gave us 2.7 per cent. of our imports and took 3.9 per cent. of our exports. From Java and Mauritius we got sugar, and they were responsible for 6.3 per cent. and 1.5 per cent. of our import trade. Kenya cotton imports from East Africa were responsible for 2 per cent. of our imports. Thus, we have a favourable balance of trade against all other countries, except the United Kingdom. The exports and imports to and from the whole British Empire balanced during the year. The United Kingdom is absorbing a larger and larger share of our exports. The pre-war average of the balance of trade was 78 crores. In the year under review, the balance of trade against all the countries with which we have trade relations amounted to 155 crores of rupees. It was liquidated by heavy imports of bullion, gold amounting to 74 crores of rupees and silver to 20 crores of rupees.

Advantages of International Trade to India.—Let us now discuss the advantages of international trade to India. The advantages of international trade are the same as those of exchange in general, namely, stimulus to conditions of highest productivity, ability to dispose of surpluses, and the gain in utility. Suppose, England produces 28 units of woollen goods with a certain amount of productive effort, and 25 units of cotton goods with an equal amount of productive effort. On the other hand, Germany produces 30 units of woollen goods and 20 units of cotton goods. If both these countries produce both these things, they produce 58 units of woollen goods and 45 units of cotton goods. If England were to specialise in woollen goods and Germany in cotton, the result would be that 56 woollen units would be produced and 40 cotton units. But if England produces cotton with both her productive units, and Germany produces woollen goods, then 50 cotton units are produced and 60 woollen units. That is to say, according to this international division of labour, each is producing that in which it has greater comparative advantages over his contemporary. The community according to this division, technically known as the doctrine of comparative cost, gets additional 5 units of cotton goods and 2 units of woollen goods, which can be divided as a profit between the two countries.

Theoretically it looks very sound that India should produce such things as cotton, jute, rice, seeds or hides and skins, and receive other things in return,

in the production of which others are comparatively more efficient. But the weakness of our system lies in the fact that we export mainly raw materials and food-stuffs and import mainly manufactured commodities. True economic progress and advancing civilization are known not only by increasing wants, but also by the ability of the community to produce them, which we do not possess. The application of the laws of international trade would be equitable in the case of countries which are more or less in the same stage of economic progress. Our country is still predominantly agricultural. Quite a large amount of food-stuffs and raw materials is required to be given for a much smaller amount of manufactured commodities. We have shown above, by means of an illustration, how in the adjustment of the war-time and after-war prices the Indian producer has been a great sufferer. The rise in the price of his produce has not been proportionate to the rise in the price of the goods of the foreign manufacturer.

India has, however, been benefited a great deal by the development in our foreign trade. Her growers have found it possible to dispose of their surplus at good prices, and obtain cheap manufactured commodities from foreign countries. These conditions have tended to develop rural prosperity and the standard of living to a certain extent. A revolution has occurred in the consumption of the community since the development of her foreign trade. Last but not the least of the important advantages to India from her foreign

trade is the convenient way in which the Government derives revenue from the Customs tariffs of India, which amounts to about 40 crores of rupees annually. Foreign trade and commerce, moreover, are a means for the promotion of civilization, and the contact of India with other countries through her foreign trade has brought her much social benefit.

CHAPTER XVI.

INDIAN CURRENCY.

The two most important requisites for the development of exchange are transport and the machinery of exchange. We have already given an account of the transport system of the country. The latter is studied under two heads, namely, the currency system and the organisation of credit. In this chapter we propose to deal with the Indian currency system, while the next would be devoted to a discussion on the organisation of credit in India. The currency of a country includes money of two kinds: (i) the medium of general circulation, and (ii) the medium of restricted circulation. The former includes (a) metallic money, (b) inconvertible paper money, (c) certificates of deposit, and (d) convertible notes; while the latter includes credit paper which does not circulate so generally, such as cheques, drafts representing bank deposits, and bills of exchange representing goods. Let us now trace the development of the Indian currency system during the last 100 years or so.

Rupee Coinage up to 1893.—Gold and silver coins of various denominations had been in use in India from very early times. The existence of many coins created many difficulties in the way of the development of

internal and external trade of the country. The necessity of a standard money was thus realized—a money to the value of which the values of all other kinds of money can be adjusted, whose face and intrinsic values be equal, whose coinage be free, and which be unlimited legal tender. The present rupee (containing 165 grains of silver and 15 grains of alloy) was ultimately adopted as the standard coin of India in 1835, when all other coins of gold and silver ceased to be legal tender. At the request of the public, however, gold coins were accepted at treasuries at different ratios on different occasions. Our currency difficulties began from 1871 onwards. Many European countries gave up the use of silver for coinage purposes, and the production of the baser metal increased from 2.4 million kilos to 4.8 million kilos. The rupee before this period was equal to 2*s.*, but when the price of silver fell from 52*d.* per ounce to 37*d.* per ounce by the year 1892, the value of the rupee fell to 1*s.* 3*d.* As we had to make payment of Home Charges, large amounts of money had to be found by the Indian Government. Fall of exchange by every penny meant a loss of approximately a crore of rupees to the Indian Government. Economy was effected in expenditure and heavy taxation was resorted to. The Herschell Currency Committee was then appointed in 1892, to find a solution for these various currency problems.

1893 to 1899.—The position then was: The price of the metal (silver) of our standard money (rupee)

had heavily fallen, owing to a glut in the market. European countries would not again take to the use of silver for coinage. Uncertainties regarding the value of the rupee in terms of gold brought about heavy losses to the Indian Government, which imposed additional taxation to the extent of several crores of rupees, retarded the development of foreign trade and checked the free flow of foreign capital into India for industrial development. According to the recommendations of the Herschell Committee: (i) The mints were closed to the public to the free coinage of silver. The rupee, however, continued to be the unlimited legal tender. (ii) Rupees were to be issued in return for gold tendered at mints at the rate of 15 rupees to a sovereign (1s. 4d. per rupee). The Government was willing to accept gold at that rate in payment of dues. (iii) The rupee was thus reduced to a token coin. The silver standard was thus abolished, without establishing a gold standard, and gold coins were not declared as legal tender. The object of controlling the rupee coinage and restricting its issue was to artificially raise its value, in terms of gold at least to 1s. 4d. When the amount of trade increased, currency became insufficient, bank rate rose to 12 per cent., the rate of exchange gradually rose from 1s. 1d. in 1894 to 1s. 4d. in 1898. This was a rise owing to the artificial stringency of rupees, and not on account of a rise in the price of silver. Thus the rupee divorced its real value in terms of gold, and attained a higher price level than its intrinsic value warranted.

Fowler Committee.—This committee was appointed in 1898 to supplement, modify and complete the recommendations of the Herschell Committee. The objective of the recommendations of the first committee was to attain a higher exchange value for the rupee, and it was achieved. Now it remained for the Fowler Committee to legalise that ratio, and recommend steps for its stabilisation. The Fowler Committee declared itself in favour of a gold standard with a free gold mint, and with sovereigns and half sovereigns as current coins having unlimited legal tender. The rupee was to remain a token and subsidiary coin, and was to continue as unlimited legal tender during the transition period. Coinage of fresh rupees was to be discouraged. In order to accumulate gold for declaring a gold standard with a gold currency, a gold fund was to be created out of the profits of the rupee coinage. Thus the Fowler Committee recommended a system of gold standard with an effective gold currency, and a free gold mint with facilities for the convertibility of bullion into coins. Sovereigns became legal tender in India in 1899 at the rate of 15 rupees per sovereign.

Currency between 1899 and 1914.—A gold standard with an effective gold currency, as recommended by the Fowler Committee, could not be adopted in India owing to the opposition of the British Treasury. But a cheaper substitute, called the Gold Exchange Standard, almost equally good, was evolved to suit our currency requirements. According to this system,

if gold is available for the purposes of making international payments at an approximately constant rate in terms of national currency, it is a matter of comparative indifference, whether or not it actually forms part of your internal currency. The conditions for the successful working of a Gold Exchange Standard are said to exist (i) when actual circulation of gold currency in the country is not necessarily large, (ii) when the local currency is not necessarily redeemable in gold for internal purposes, (iii) when there is machinery for making remittances abroad in gold, which can be had for that purpose at a fixed maximum rate, and (iv) when reserves are available abroad for making gold available for those payments. The advantages of a system like the above are, that it economises the use of gold. A poor country like India could ill-afford to use large amounts of gold for internal currency purposes. Moreover, most of our day-to-day transactions being very small, a cheaper currency than one in gold had a greater adaptability to our economic conditions. Under a Gold Exchange Standard system, gold was required only for maintaining reserves abroad used for foreign remittances, and not necessarily for internal circulation. For internal requirements a cheaper currency could be used. The reserves abroad are intended to help in maintaining the foreign exchange at a particular rate, at which the internal currency of the country is convertible into gold for the purposes of foreign payments. So long as the stability of the rate of exchange is maintained,

the Gold Exchange Standard works as efficiently as, perhaps more economically than, the actual Gold Standard. It releases gold that can be used for the development of industries and trade. The gold reserves abroad maintain the stability of exchange, and thus encourage foreign trade and facilitate the import of foreign capital into the country. The essential features of the Gold Exchange Standard, as it satisfactorily worked in India from 1899 to the outbreak of war, were as follows: (i) The rupee was unlimited legal tender in India. It was a token coin, but there was no legal obligation on the part of the Government to convert it into gold for internal purposes. (ii) Sovereigns and half-sovereigns were unlimited legal tender at the rate of Rs. 15 and Rs. 7-8, respectively, but formed a small part of the internal currency of the country. (iii) As a matter of practice, not as a matter of legal obligation, the Government of India sold sterling bills on London in return for rupees tendered here in India which were encashed in gold from the reserves held by the Secretary of State for India in England. Rupees were given in India in return for gold or Council Bills. (iv) The Secretary of State sold Council Bills for gold payable in rupees in India. (v) The Gold Standard Reserve was kept in London to be used in times of an adverse balance of trade, and further to maintain the exchange rate at 1s. 4d. per rupee. Thus our internal currency included the unlimited legal tender token rupees and convertible notes, and for foreign payments there was

machinery both ways, in India as well as in London. Even before 1893, the Secretary of State sold Council Bills payable in India in order to receive payment of Home charges in gold. From 1899 onwards, he began to sell Council Bills even for trade requirements, and exporters, anxious to remit gold to India, readily purchased them and sent them to their creditors in this country. The Secretary of State sold Bills of Exchange on India without any limit of amount at the rate of 1s. $4\frac{1}{8}d.$ per rupee as a maximum rate, $\frac{1}{8}d.$ was the cost of transportation of gold from England to India. At a higher rate than 1s. $4\frac{1}{8}d.$ it would have been profitable to ship gold. The Government in India sold bills, called the Reverse Councils, on the Secretary of State, at a rate not below 1s. $3\frac{29}{32}d.$ per rupee. $\frac{3}{32}d.$ was the cost of return transport from India to England, and nobody would have purchased bills at a dearer rate than 1s. $3\frac{29}{32}d.$, for it would have been more profitable to ship gold rather than purchase it at any price below 1s. $3\frac{29}{32}d.$ The system thus evolved gave us a cheap currency in which gold was not required for internal currency, but was generally available for the purposes of foreign payments at a fixed maximum rate. Under this system, the necessity of first importing gold in payment of our exports, and then exporting it for the purposes of purchasing silver for our currency requirements was avoided. The Secretary of State sold Council Bills not only for the purpose of putting himself in possession of funds, but also for the purchase of treasure, for

general trade requirements, and for the purpose of adjusting the trade balance in favour of India. The ratio was maintained in times of adverse balance of trade with the help of the Reserves held with the Secretary of State.

Currency during the War.—The system worked well till 1916, except on one occasion in 1907, when owing to a variety of circumstances, the balance of trade went against India, and the rate of exchange fell below the normal rate. The Chamberlain Commission appointed in 1913 also blessed the system as it had worked till then, and made certain recommendations for the increased use and popularisation of notes. The currency difficulties of the Government during and after the war form a period by themselves. As soon as the war broke out, there was a feeling of insecurity all round. Heavy withdrawals were made from the Post Office Savings Bank, currency notes were presented at treasuries for encashment, foreign capital began to be exported, our exports after first declining temporarily gradually multiplied and imports fell, but our balance of trade would not come to India in the shape of gold, owing to a general embargo on the export of gold in the belligerent countries. Heavy disbursements, moreover, were made by the Government of India on behalf of the Imperial Government in connection with expenditure on the eastern theatres of the war, so much so that some £240 million were paid out by the Government on that account by 1919. Intense demand for exports

raised prices. All the above circumstances meant a demand for a much larger volume of currency than was hitherto available. And all kinds of currency—gold, silver and notes—was issued in large quantities. The Secretary of State could not send out gold to India, but sold Council Bills in large amounts. Their presentation at treasuries for payment also meant a great demand for currency. Some idea of the extent to which currency was demanded during the war, may be gathered from the fact that no less than 132 crores of new silver rupees were put into circulation in four years from 1916 to 1919, and the amount of total note-circulation increased from 69 crores of rupees in 1913 to 172 crores of rupees by 1919. The whole of gold that was issued by the Government to meet the demand for additional currency in the early stages of the war, was soon absorbed by the public. The Government of India did all that it could, to meet the abnormal demand for additional currency by all the means that were open to it. Additional paper currency was issued in India, against gold securities held by the Secretary of State in London. The Secretary of State invested all the gold that he got in return for our exports, in Sterling Securities. The fiduciary portion of the Paper Currency Reserve was thus increased from 14 crores of rupees in 1914 to 120 crores by 1919, and the metallic reserve fell from 78 per cent. of the total circulation in 1914 to 44.6 per cent. in 1919. Notes of smaller denominations—2½ and 1 rupee notes—and 8, 4, 2, and 1 anna nickel

pieces were issued in order to provide change and economise the use of silver when the price of the latter had gone up very high and it could not be available for coinage purposes. When the price of silver is 43*d.* per ounce, it is just profitable to coin the rupee. From 27*d.* per ounce in 1915 the price of silver went up to 58*d.* per ounce in May, 1919, and to 78*d.* per ounce by December, 1919. Rupee coinage was thus carried on at a heavy loss. When the price of silver purchased by the Secretary of State for coinage purposes rose, he could not continue to sell Council Bills at the old rate of 1*s.* 4*d.*, and thus from 1916 onwards he gradually raised the price of his bills in sympathy with the rise in the price of silver, so that by 1919 the rate of exchange at which the Council Bills were sold rose to 2*s.* 4*d.* per rupee. This was well done so far as it could go. But wherefrom to bring additional currency in India in order to pay those bills? The amount of those bills sold by the Secretary of State was then restricted to war purposes. Still the demand for currency in India remained insatiable, and at one time the amount of paper currency in circulation in India was so large that there was danger of the suspension of specie payment in return for convertible notes.

The Babington-Smith Committee and After.—It was in the midst of such dire currency difficulties, that the Government of India was in search of expert advice in the solution of her currency and exchange problems. The Babington-Smith Committee was then appointed

in 1919. The main difficulties at the time were, that the price of silver was very high, its demand in India was intense, the rupee was coined at a loss, there was danger of the stoppage of specie payment for notes, and finally the exchange rate had left its original moorings. There was a great element of speculation in trade. The object of the Babington-Smith Committee was to make the Gold Exchange Standard stable, restore stability to exchange, and make recommendations for the automatic working of the Indian currency system. They also blessed the Gold Exchange Standard system. In their opinion, it provided suitable media for internal circulation, was a good means for the settlement of the balance of trade and, finally, secured stability between the rupee and the sterling. The gold standard in England had been shaken from the stress of war, and the value of sterling (paper) had fallen in terms of gold. The Babington-Smith Committee, therefore, recommended the linking of the rupee to gold at 2s. per rupee. High exchange, it was pointed out, brought about a fall in prices, could not hinder industrial development or hamper Indian trade permanently, and there would be gain in the payment of the Home Charges. The 2s. gold ratio was adopted early in 1920, but the market rate of silver was higher than 2s. gold. Heroic efforts were made to maintain the ratio at 2s. gold by large sales of Reverse Councils. But under adverse circumstances, when the imports considerably increased and the price of silver fell, it became impossible to check

a fall in the exchange rate. Many persons purchased Reverse Councils at the handsome rate at which they were being sold by the Government, sent their money abroad, only to bring back the same when the rate had fallen to 1s. 4d. or 3d., and thus made large profits. Reverse Councils to the extent of about £55 million were sold in 9 months at different rates, and a loss of about 40 crores of rupees was thus suffered. Our money that had accumulated in England during the war at the rate of 1s. 4d. per rupee, was liquidated to us at a higher rate than 2s. When goods worth Rs. 15 were given, ten or less than ten rupees were realized. The effort at regulating exchange miserably failed, and the exchange was left to find its own level. The exchange once fell to 1s. 3d. per rupee. During the last two years or so, the rate has oscillated at about 1s. 6d. The rate prevailing is neither the legal rate (2s. gold), nor the one warranted by the gold price of silver, which should be a little over 1s. per rupee.

The Government has taken steps from time to time to maintain the rate at 1s. 6d. A fluctuating exchange is bad. It creates an element of speculation in business and disturbs the budget estimates of the Government of India. Therefore, another Royal Commission on Currency and Exchange was recently appointed to investigate the problem.

The Hilton-Young Currency Commission.—This Currency Commission began work towards the end of 1925, and its report was published in the middle of

1926. The recommendations made by the said Commission are very important and of a far-reaching character. The Commissioners would abolish the existing divorce between currency and credit, and would give the powers of note-issue to a new Reserve Bank of India. They recommend the adoption of Gold Bullion Standard, whereby the Government would be bound to give gold (not less than 400 ounces in quantity) or gold exchange for internal as well as external purposes in return for rupees or notes. They would take away the legal tender character of our sovereigns. Rupees and notes would remain unlimited legal tender as hitherto. They recommend the stabilisation of the rupee at the rate of 1s. 6d. Their recommendations are yet in a melting pot, and have not yet received the sanction of the Indian Legislature.

Paper Currency.—In the foregoing paragraphs we have given an account of the rupee coinage in India, how the rupee became the standard coin of India in 1835, was dethroned from the position in 1893, and how, in spite of its being a token coin since that year, it has remained the principal coin of India and the most important medium of exchange in the internal currency of the country. Our metallic currency has been supplemented by paper currency. The possibilities of the latter have developed beyond all proportions during and since the war. It was in 1861, that the Government withdrew the privilege of note-issue from the Presidency banks, and entrusted the same to a

Government department under the management of the Controller of Currency. Notes of the denominations of 10, 20, 50, 100, and 1,000 rupees were first put into circulation. In the seventies of the last century it was realized that notes of Rs. 5 and Rs. 10,000 were also necessary. The whole country was divided into a number of circles, and the notes of each circle were made legal tender in that circle alone. This step was taken to avoid the difficulties of the movement of large funds from one centre of trade or province to another for the encashment of notes, but this step prevented notes from becoming very popular or from being largely used. The process of universalisation, however, began in 1905, when the 5-rupee note was made legal tender all over India. In 1910, ten and fifty-rupee notes and, in 1911, hundred-rupee notes were also universalised, and the process would have been brought to its logical conclusion when the war broke out. There is no doubt that since the assumption by the Government of the privilege of note-issue, the note has gradually grown more and more popular. Before the war, the total note-circulation was some 69 crores of rupees, and after the war it has remained higher than that figure by well over a hundred crores of rupees.

The Paper Currency Reserve.—It must be clearly pointed out that there is no system of inconvertible paper currency in India. All paper currency that is issued, is backed either by gold or gold coin, silver or silver coin, or by securities, Indian or Sterling.

The bullion, coins and securities thus kept to insure the convertibility of notes into hard cash constitute what is called the Paper Currency Reserve. Notes issued against metallic backing are thus representative paper money, and there need hardly be any limit for such an issue of paper currency. Notes issued against securities, on the other hand, are called the fiduciary issue. As there is no metallic backing against the issue of such notes to insure ready convertibility into specie, the limit of their issue has been raised from time to time with a great amount of caution. In the beginning the fiduciary issue was limited to Rs. 4 crores, and gradually it came to Rs. 14 crores by 1914. The system of holding a part of the invested portion of the Reserve in Sterling Securities began in 1905. Before the war, out of a total fiduciary issue of 14 crores, 10 crores was held in Indian Government Securities and the remaining 4 crores was held in Sterling Securities. The latter portion is naturally kept in England. When funds could not be remitted to India by the Secretary of State during the war, the sterling portion of the invested reserve was gradually raised to 100 crores of rupees. Sterling Securities were purchased by the Secretary of State with gold, and notes were issued against those securities in India. The total note circulation in the country, according to the present law, cannot be more than double the amount of the metallic reserve. Gold in excess of 5 crores is kept in India, and securities in excess of 20 crores are to be kept in London. The position of the

paper currency reserve, as it stood on the 31st January, 1925, was as follows:

Gross circulation.	Metallic Reserve.		Fiduciary Reserve.		Notes against Commercial bills.
	(In India) Silver coin.	(In England) Gold coin and bullion.	(In India.)	(England.)	
181 crores	78 crores	22 crores	57	20.1	4 crores

The percentage of metallic reserve to total note circulation was 56. There are a few more points regarding the paper currency that require elucidation. Why are the notes issued against securities? Why is a part of the reserve kept in England? How is the automatic working of the note-issue insured? Securities represent loans contracted by the Government. The issue of notes against securities is a kind of check to the Government against over-issue. Government Securities, moreover, are readily saleable, and thus help the ready conversion of notes into cash. As the Secretary of State is required to purchase silver on our behalf in London, he is allowed the possession of necessary funds by means of the Paper Currency Reserve. The part of the Paper Currency Reserve held in London has also been used as a second line of defence to secure the stability of the rate of exchange. This is the justification for its being retained in England. With regard to the third point, it has been accepted by the Government that a central bank is the best institution to govern the note-issue, but under the hitherto prevailing conditions in India, the retention of the note-issue in the hands of the Government was perhaps

justified in the interests of maintaining confidence in the public mind regarding the security of note-issue. Power has recently been taken by the Government to issue emergency currency, up to 12 crores of rupees, against commercial bills, in times of brisk trade when more money is needed for *bona fide* trade purposes, and the bank rate rises. The note-issue power is now proposed to be given to the newly proposed Reserve Bank of India.

Gold Standard Reserve.—Before we close the account of the Indian Currency system, let us explain the composition, location and functions of an important Indian reserve, called the Gold Standard Reserve. The creation of the gold reserve fund out of the profits of the rupee coinage was recommended by the Fowler Committee in order to facilitate the adoption of a system of gold standard with gold currency in India. When the original intention was given up, and the system of gold exchange standard came in vogue, the fund was gradually transferred from India to England, in order to maintain the rate of exchange. The fund now amounts to some £40 million, and is entirely held in London in short-term sterling securities. Thus it earns some interest there. It is required to be utilised only on those occasions when the balance of trade happens to go against India. It helps in maintaining the rate of exchange, and in adjusting the balance of trade. Creditors in London feel secure for their capital in India by its presence in their midst.

CHAPTER XVII.

THE BANKING ORGANISATION OF INDIA.

The banking organisation of a country constitutes a very important part of the machinery of exchange. On account of the production of goods on a large scale and the expansion of world-wide markets, the interval of time between the first growing of materials and their manufacture into finished commodities, and further between the manufacture of commodities and their final delivery into the hands of the consumers, has become very great; and the big concerns, running these big industries and businesses, do not always find themselves in a position to finance all the industrial and commercial operations with their own capital, and are consequently required to fall back upon the services of banks for the purposes of getting accommodation. Thus, under modern economic conditions, banks are an absolute necessity for the purposes of facilitating production, promoting exchange and enabling consumption of goods produced on a large scale and distributed over a wide area.

A bank is a firm or joint-stock company formed for the purpose of dealing in the money of the country and its representatives. Thus a banker provides a safe place for the deposit of the spare cash of his cus-

tomers, advances money, issues notes, facilitates payments by book-entries, and in various other ways diminishes the need for actual coin to perform business transactions. The origin of banking dates back from those times when big money-lenders joined together to lend money to their governments. Goldsmiths later on developed the system of inviting deposits from private individuals. When the character of exchange became international, there came an opportunity for the money-changers to increase the scope of their activities and facilitate foreign exchange. The functions of modern banks have developed from these rudiments. Briefly summarised, they are as follows:—

(i) They mobilise the savings of a community and put them into the most productive channels.

(ii) They discount bills of exchange and thus help in the development of trade and industry of the country.

(iii) They enable the transfer of large amounts of money from one place to another, however distant, through the use of bills, drafts, cheques and letters of credit on occasions when the movement of precious metals may be difficult to obtain, and thus provide facilities for the promotion of all kinds of commerce.

(iv) They economise the use of precious metals by enabling the public to make use of such credit instruments as cheques, drafts and bills of exchange.

(v) They are sometimes allowed to issue bank notes which ease the metallic currency of the country,

and form the most elastic form of currency, easily capable of expansion and contraction in times of brisk or slack trade activity, as the case might be.

(vi) They sometimes act as agent to their clients for safe custody of their valuables, and collect interest and dividends on their behalf.

(vii) They manage foreign exchanges. Some Dutch banks are also said to have regulated coinage and supplied good money. But a few banks in modern times also work as government treasurers and manage the Public Debt.

(viii) They provide references for the establishment of trade connections between merchants living in different countries.

(ix) But the general economic function of banks is to organise credit, to stimulate and concentrate savings for national purposes, to direct capital into the most profitable channels and to form connecting links between the different money markets. In India, the exchange banks carry on foreign exchange business, and connect the Indian money market with the foreign money markets. The Central Banks of Co-operative Credit Societies connect the village money-market with the city money-market.

BANKING IN INDIA.

Banking has been practised in India from very old times, but the development of joint-stock banks is only a modern phenomenon. The movement is making rather very slow progress in the country, as would

appear from the fact that large and extensive tracts of the country are still without any modern banks. People have not generally recognized and appreciated the value of banks in the economy of a modern nation. They do not appreciate the good that the banks are capable of doing. Banks, moreover, have not been found to come to the high expectations that the people have of them in the matter of the rate of interest on their deposits. Banking is also slow in India on account of the lack of trained employees. Still, the banking system of the country, as it is, has many special characteristic features. For purposes of study, it may be divided into the following groups: (i) Indigenous bankers, (ii) Joint-stock Banks, (iii) Exchange Banks, and (iv) the Imperial Bank of India.

Indigenous Bankers.—The indigenous banker, known as sahuakar, bania, mahajan, shroff or chetty in different parts of the country, has been doing the business of money-lending and hundie-discounting from very old times. Such business is usually carried on in India by single individuals or families, and not by partnership or joint-stock companies. The indigenous banker does it with his own capital, of which he sometimes has very large amounts. The principal business of the indigenous banker is to lend money. The bigger ones also discount hundies. As he lends money for all kinds of good, bad and indifferent purposes, he not only accepts personal security, but also takes care to receive collateral security to balance the amount of his loan. He usually charges a very

high rate of interest, which is moderated only in those areas where he has to compete with the modern banks. An explanation for the high rate of interest that he charges is, that he sometimes takes very great risks, and has to advance money to his customers, usually ryots, artisans, small traders and shop-keepers, on absolutely worthless securities, and experiences a lot of difficulty in realizing the amount. He is almost the only agency so far in the vast rural areas to give big and small advances to the cultivators when they require it for the payment of rent or wages, purchase of bullock or seed, or some social purpose as the celebration of a marriage, etc. A money-lender is an institution in the rural areas. It is unfortunate that the indigenous banker attracts very little money in the shape of deposits, and thus banking habits of the people do not develop. He only gives and does not take. He is a money-lender, a usurer and not a true banker. He sometimes fleeces his customers and accepts land and bullion as security. A modern banker is the biggest borrower in the community, and redistributes the proceeds of his borrowings among his customers in a judicious manner. In big towns, however, the shroffs do an extensive amount of business in the issuing and discounting of hundies too. The opening of bank branches has decreased their profits in that line, but still they have to fill an important place in the economy of banking. At big centres of trade they also act as middle-men between the modern banks and the trading community, and thus help in the discounting of bills of

the latter through the agency of the former. The business of private bankers is not confined to money-lending or bill-broking; they are also sometimes big dealers in particular commodities and act as commission agents.

From what has been said above, it would be abundantly clear that the indigenous banker falls far short of the requirements of a modern banker. His resources are limited, because he works with his own capital. He cannot issue notes, nor does he invite deposits. In one more respect he is different from a modern banker, that he does not exercise that wholesome influence on the business activities of his customers which is expected of a modern bank. Still, let it be said to his credit that he fills an important gap in the financial system of the country, and in the absence of a better agency, the money-lender is a necessary evil in the financing of agriculture and internal trade of the country.

Joint-stock Banks.—We have seen that the agricultural industry, small industrialists, our artisans and traders and the major portion of our internal trade are all financed by the indigenous banker. The joint-stock banks, however, have other important functions to perform. They mobilise the savings of the community, and provide credit which is so necessary for helping the trade and industry of the country. They attract deposits and finance mostly the export and import trade of the country. Indian joint-stock banking is about a century old, but Indians have taken a more active part in it since the last quarter of the 19th

century. Their number has slowly but steadily increased, in spite of the shocks that the movement of joint-stock banking has received from time to time, particularly during 1913—16 when about 80 banks went into liquidation. The branches of joint-stock banks are found to-day at almost all the centres of trade and commerce. Modern banking facilities exist at some 165 places. At big centres, there are more banks than one, and clearing house facilities are provided at Rangoon, Karachi, Cawnpore, and Lahore, besides the presidency towns. The number of joint-stock banks in India, having a capital and reserve of 5 lakhs and over on December 31, 1923, was 23, with a capital of 6.89 crores, reserves amounting to 2.84 crores and deposits to 44.42 crores of rupees. The number of joint-stock banks with capital and reserve between one lakh and less than 5 lakhs on the same date was 43, with 1.11 crores of capital and reserve, and 3.26 crores of deposits. The more important of the banks of the former group are the Central Bank of India, the Allahabad Bank, the Punjab National Bank, and the Union Bank of India.

BANKING CRISIS OF 1913—16.

An account of the joint-stock banks in India would not be complete without a reference to the disastrous banking crisis of 1913—16. During the 4 years from 1913 to 1916, as many as 78 banks failed. The more important of them were the Peoples Bank of India, the Credit Bank, the Indian Specie Bank, and the

Amritsar Bank. It is estimated that 34 per cent. of the total paid-up capital of the Indian joint-stock banks was lost during the period of the crisis. Numerous causes accounted for the crisis. The following are the more important causes that led to bank failures in that period:—

(i) Many mushroom banks were started during the Swadeshi boom, which had no co-operation among themselves, and as between themselves and the older banks. The Bank of Bengal refused to advance money to these banks, even on the security of the Government Paper during the times of panic.

(ii) But the primary cause of these bank failures was the want of business knowledge and experience on the part of company-promoters, managers and the staff of the new banks. The bank directors were in most cases incompetent, the managers had no knowledge of banking principles, and the shareholders were incapable of exercising any vigilant control on the working of the banks.

(iii) Another important reason of the bank failures was that most of these banks were working with very small amounts of paid-up capital. It is said that in the case of many of the Punjab banks the capital was seldom higher than 4 or 5 lakhs of rupees, although they had increased their commitments to heavy proportions. The running expenses of the banks were thus very high. In order to increase their resources, therefore, these banks invited deposits at competitive rates of interest.

(iv) In certain cases, indulgence on the part of the banks in speculative branches of business was responsible for their failure. The Indian Specie Bank failed on account of its attempt to corner silver.

(v) In many cases, the most important principle of commercial or deposit banking, namely, the holding of assets in the most readily realizable forms, was violated. Large sums were sometimes given to single individuals or for locking up in industrial concerns. With short-dated deposits and small paid-up capital, it is unthinkable how the Punjab bankers could afford to sacrifice the principle of immediate convertibility of assets.

(vi) Another very important principle that was ignored by almost all the banks was, that the percentage of cash to liabilities was kept very small. This wholesome rule is still sacrificed by banks in India to the great risk of the depositors.

(vii) But by far the most important cause of these failures on such a large scale was, that there was no central banking institution in the country, which could come to the rescue of at least the more sound of these banks, and thus save them from the disaster. The Presidency and Exchange banks maintained an attitude of jealous spectators.

(viii) There were some other causes of these bank failures. Some banks failed because they made advances on the security of their own shares, and others because along with banking they carried on other business side by side. A few banks made heavy

advances to their own directors. In some cases, auditing was not proper. Some banks declared dividends out of the capital and deposits.

It is needless to point out that the crisis gave a heavy shock to joint-stock banking in India. The banking community had hardly recovered from the heavy shocks of the crisis of the previous decade when, a few years ago, the Alliance Bank of Simla, a very popular joint-stock bank, closed its doors.

Exchange Banks.—There are practically no indigenous exchange banks in India. Most of the exchange banks working in this country are branches of foreign banks, mostly English, but also German, American, French, and Japanese. They were incorporated in foreign countries, their capital was raised there, and their head offices are outside India. Some of them carry on their main business in India, others have only a small part of the total business done in this country. These exchange banks are mainly concerned with the large commercial operations between India and foreign countries. They principally finance the foreign trade of India and provide a link between the merchants here and the dealers and customers in foreign countries and *vice versa*. They buy and sell bills of exchange both in and outside India, and thus enable themselves to keep in possession of funds. A new feature of the exchange banks is the development in their deposit system. Although formerly they used their own capital and such additional capital as they could obtain

by the purchase and sale of bills of exchange, now they are in a position to attract very large amounts of money as deposits from the public and the mercantile community in India. They are also taking a greater and greater share in helping the internal trade of the country. The Imperial Bank of India being prohibited by law to do foreign exchange business, these banks do not enter into competition with that bank so far as that line of banking is concerned. In the matter of general banking business, however, such as loans, deposits, overdrafts, financing of internal trade, there is a certain amount of competition between the exchange banks on the one hand and the Imperial Bank and other joint-stock banks on the other. The former have access to the London money market and enjoy a high reputation for sound banking. They hold almost a virtual monopoly of the most profitable branch of the trading work in the country. They are thus in a position to declare heavy dividends and their shares are well-quoted at stock exchanges. The total number of exchange banks doing business in India on December 31, 1923, was 18, with capital and reserves amounting to £73 million and £48 million, respectively, and deposits amounting to £17 million and £832 million in and outside India, respectively. The more important of these banks are the National Bank of India, the Mercantile Bank of India, the Chartered Bank of India, Australia and China, the Eastern Bank of India, the P. and O. Banking Corporation, the International Banking Corporation, the Hongkong and

Shanghai Bank, the Yokohama Specie Bank and the Russo-Asiatic Bank.

THE IMPERIAL BANK OF INDIA.

By far the most important part of the machinery of banking in India is the Imperial Bank of India, formed early in 1921 by the amalgamation of the three Presidency Banks, namely, the Bank of Bengal, the Bank of Madras, and the Bank of Bombay. The necessity of a central bank had long been felt. The post-war negotiations between the Government of India on the one hand and the Presidency Banks on the other, and as between the various Presidency Banks themselves and their shareholders succeeded, and the result was the incorporation of the Imperial Bank of India by an Act of the Central Legislature. The total share capital of the Bank amounts to $11\frac{1}{4}$ crores, and the reserve to $3\frac{3}{4}$ crores of rupees. The total amounts of public and private deposits in the Imperial Bank of India on the 31st December, 1923, amounted to 8.56 and 74.19 crores of rupees, respectively, and the cash balance on the same date to 15.01 crores of rupees.

Business.—There are provisions of the Act which define the branches of business that the Imperial Bank of India can carry on. It is prohibited by law to undertake foreign exchange business except for limited amounts and for old customers. The Imperial Bank of India is the banker of the Government, and carries on a considerable amount of Government treasury

business and the management of the Public Debt, in addition to the ordinary loaning business of a joint-stock bank. When constituted, it had the prospect of getting the powers of note-issue, but those powers now are intended to be given to the proposed Reserve Bank of India, the establishment of which has been recommended by the recent Hilton-Young Currency Commission. For developing banking habits in the people, it has opened 100 new branches in the country since its inception, according to the stipulation made with the Government, including some branches which are not financially sound. The Government system of Reserve Treasuries was abolished when the Imperial Bank of India came into being, and large cash balances of the Government are thus kept with this bank. Its control, therefore, could not entirely be left to the authorities of the Bank, and there are four representatives of the tax-payers and the Controller of Currency on the Board of Governors of the Imperial Bank of India, in order to watch the administration of public funds and safeguard the interests of the Government. The bank has been allowed by its charter to take up the assets and liabilities of other banks that may come into liquidation.

Management.—The branches of the Imperial Bank of India are now spread in most of the important towns over the whole country, and there are three local boards with their offices at Calcutta, Bombay and Madras, which look after the affairs of the business of the Bank in their respective spheres. There is a Central Board

of Governors that lays down the general policy of the bank in business matters, subject to the general powers of restriction and supervision of the Government of India. The bank has a London office. The Central Board of Governors consists of the presidents, vice-presidents and secretaries of the local boards, the controller of currency, and four representatives of the tax-payers nominated by the Government from among the business men of India.

General.—Before we conclude, a few more points relating to banking in India may be mentioned. There is no doubt that considerable progress has been made in banking in India, since the inauguration of the Imperial Bank of India. Our financial resources have been consolidated, more bank branches have been opened, and the Imperial Bank has come to the help of sister institutions in times of stress on more than one occasion. But the Imperial Bank of India has not been fully devised to act as a bankers' bank from the charter of its constitution. It no doubt acts as the Government treasurer, determines the bank rate and has decidedly improved the tone of general banking in India. But it has no control over paper currency, and it cannot rediscount bills of other banks. There is no provision in the law to require other banks to keep a certain portion of their balances with the Imperial Bank. And owing to the above inelastic features, the usefulness of the Imperial Bank of India as a central or bankers' bank has only been restricted. A central bank should enjoy the powers of note-issue,

and knowing full well the conditions of trade it is in the best possible position to increase or decrease the volume of paper currency in times of brisk or slack seasons, respectively. Then, there should be some obligation on it to lend freely to other banking institutions in times of financial panic on their easily marketable securities. A run on one bank creates panic and often brings misfortune to several others. If smaller banks are thus helped to tide over a period of crisis, confidence is soon restored in the minds of the public. A central bank with the above provisions should be a source of strength to other bankers in the country.

One important feature of our banking is, that India has so far developed only the commercial or deposit banking system. There are no industrial or land-mortgage banks in the country, giving facilities for long-term credit for industrial and agricultural purposes, owing to which the development of the resources of the country is very much handicapped. Credit in our rural areas is hopelessly disorganised. The co-operative movement is still in its infancy, and our rural areas are not linked up with the town money market, owing to the absence of a suitable agency. Some other institutions, such as the Postal Savings Bank, the Cash Certificate system of the Government, the Insurance and Provident Societies, also help in the mobilisation of the savings, but that is only a part of the banking business. The sorest need of India is more banking. More bank branches should be opened in the rural areas, so that they may train the people

in the habit of banking and make them thrifty. The following extract taken from a speech of Mr. Pochkhanawalla, Managing Director of the Central Bank of India, recently delivered at Cawnpore, would show the backwardness and deficiency of the banking system in India, as compared with other countries: "The total bank deposits in India were only 3 per cent. of the bank deposits in the United States of America and 9 per cent. of the deposits in the United Kingdom. Average bank deposit per head of population in India was only 15 shillings, as compared to £57 in the United Kingdom, £44 in Canada, £63 in Australia, and £73 in the United States. On an average, for every 13 square miles there was a banking office in the United Kingdom, as against one office for every 3,530 square miles in India. As regards individual bank business, the deposits of each of the 'Big Five Banks' in England, which were only joint-stock banks, were more than the combined bank deposits in India. The Midland Bank alone had four times the deposits of the Imperial Bank of India."

CHAPTER XVIII.

AGRICULTURAL RENTS IN INDIA.

In popular language, rent means the payment that a tenant makes to his landlord for the use of the latter's land. Rent is different from land-revenue, which is a share of the profits of the landlord that the State takes from him. The ideas of tenancy and rent-payment go together. The ownership of land in India is shared between the Government and the landlord. The former has recognized the latter as a class of landowners, allowing them to collect rents wherever they let out their lands to tenant-cultivators, and reserving to itself the right of collecting revenue from them for all the land that they hold from the Government. There are certain other conditions too, to which the landlords have to submit in holding the land. Thus, wherever these recognized landowners themselves cultivate the land whose ownership they share with the Government, the question of rent-payment does not at all arise. They have only to pay land-revenue, which in that case is a part of the gross produce, not exceeding one-sixth. The question of rent-payment arises only in those parts of the country where a system of tenant-cultivators obtains. In this case, the tenants

pay rent to the landlords and the latter pay land-revenue to the State out of the rental assets or rent-income that they have received from their tenants. Land-revenue, thus, is in the nature of a tax on the landlord's income, enjoyed from the cultivation of the land.

Thus, all lands in India are not rent-paying. Only lands under tenant-cultivators pay rents, although theoretically it is possible to measure the economic rent even of those lands that are cultivated by the landlords themselves.

The word "economic rent" signifies something else. It is a differential or surplus over marginal or no-rent land. The theory of rent, usually associated with the name of Ricardo, who first stated it in a complete and systematic form, consists of two parts: (1) Land is of different degrees of fertility. An increase of population results in an increase in demand for food. The demand for food necessitates the cultivation of worse and worse lands, the rent of the more fertile fields will rise, the rent being proportionate to the difference between the fertility of *any* field and that of the worst land in cultivation. Suppose in a village there are two pieces of land, A of superior fertility and B of inferior fertility. A yields 10 maunds per bigha, whereas B yields only 8 maunds, when both are equally well cultivated. If both are cultivated, this difference of 2 maunds per bigha would measure the economic rent of A. Fertility also includes marketing facilities. A land within easy distance from the markets enjoys

an advantage over others not in the same position. (2) The other important point included in the Ricardian theory of rent is, that under certain conditions in old countries instead of taking worse land into cultivation, the increased demand for produce might be met by cultivating the fertile land more intensively. But by the Law of Diminishing Returns, the extra yield obtained from the superior land would cost more than the earlier yields, and hence the earlier yields could pay a rent. Thus, if the first dose of labour and capital applied to A produces 10 maunds per acre, the second dose produces only 8 maunds on account of the operation of the Law of Diminishing Returns. This difference of two maunds represents the rent of A, when two doses of labour and capital are applied to its cultivation. Thus, it would appear that so long as all land under cultivation is good and increasing, or constant returns obtain, additional produce demanded can be easily got without an increase in the cost of the produce. If the price of the commodity does not rise, it would not be produced in larger quantities, there would be no competition for the use of land for the production of that commodity, and worse land would not come under cultivation. Good land, therefore, under these circumstances would not pay any rent at all. When, however, the demand for produce rises, and additional supplies cannot be obtained at the old cost from the existing extensive cultivation of good land, prices rise and stimulate intensive cultivation of good land under Diminishing Returns, and

extend cultivation to poorer soils. The yield from the poor soils is smaller than that from the good ones under the same conditions of cultivation, just as it is smaller from successive doses of labour and capital in the case of good lands because the Law of Diminishing Returns is working. The difference between the produce of the land on the margin and that of the land above the margin represents economic rent, whether the land be at the extensive or intensive margin of cultivation. Thus, it would be found that the accrual of economic rent on a land is possible when (1) demand for produce increases, (2) prices rise, (3) Diminishing Returns prevail, (4) worse and worse lands come under cultivation, or good lands are more intensively cultivated. *Rent is the result of the Law of Diminishing Returns. It is a differential or surplus over marginal or no-rent land.* The differential or surplus is got only from good lands, and not from the worst land. It is only the former classes of land that are rent-paying; the latter or the marginal land is always rent-free, because it gives no surplus. And since the community requires even the produce of this soil which is cultivated at the highest cost, the cost of production is determined by the cultivator of the worst land. This soil pays no rent, and rent therefore does not form part of the cost of production.

The part played by fertility in the case of agricultural lands in determining their rents is played by situation in the determination of urban rents. A shop situated in the midst of the area of traffic is likely

to be rented for a higher rent than another one situated in a side street.

APPLICABILITY OF THE LAW OF RENT TO INDIA.

Such is the nature of the true economic rent, and the above are the principles of the Ricardian theory of rent. Gross rent may be different from the true economic rent, and may include besides the economic rent one or more of the following charges: (a) interest on any capital invested in the land by the landlord, (b) repairs and the expenses undertaken by the landlord, (c) depreciation of his capital, (d) taxes levied on the landlord, (e) the cost of collecting rent, (f) difference on account of the presence or absence of competition among the tenants. *Rents as they are actually charged or paid do include some or all of these elements.* Let us now see, how far rents in India, wherever they prevail, approximate to true economic rent, and how far the principles of the Ricardian theory of rent are applicable to the rents in India. It is suggested that the Ricardian law of rent is applicable to no country in the world, India being no exception to this general statement. The law assumes perfectly free conditions of competition between the landlords and the tenants, which it is not always possible to secure. If strict Ricardian theory is not applicable to Indian conditions, what factors do then determine rents in India?

Originally, rents in India were determined by custom. In old times, the relations between the

landlords and their tenants were very cordial. Landlords and tenants were two mutually serviceable classes of persons in the village community. The landlords were supposed to be the protectors of their tenants who were their ryots (subjects). The latter cultivated their lands, and rendered them certain services in return. They often-times received assistance from their landlords and gave them a certain share of the produce as rent. Those were times when the population was small, and there was no external demand, or demand from distant parts of the country for agricultural produce. Lands in those times were plenty, and the number of cultivators was small. Every one could have as much of land as he required, and thus there was no competition for its possession or cultivation at all. Rents were governed by custom. Since they formed a certain part of the produce, they were easily adjustable to varying seasons. They were paid when there were good seasons, and were remitted when there was no production. The contractual relations now existing between the landlords and their tenants are a modern phenomenon, and are a result of British rule. The latter have prepared an elaborate record of the different rights existing in the land. The old cordial relationship between the landlord and the tenant has been substituted by legal relationship. This tendency has been accentuated by other economic forces; for instance, the increase in population, and the emergence of demand for the produce of the land and its rising prices resulting in an increased

demand for land. Communications, moreover, have now developed the demand, both external and internal, for agricultural produce, paying commercial crops have been introduced, and artificial means of irrigation have been adopted. Land values and rent-rates have, therefore, very much risen. Decay of numerous cottage industries resulting from the imports of cheap machine-made commodities has compelled the people to fall back upon agriculture. There has been a very great pressure on the land. Competition for land has become very serious and acute. But that competition is one-sided in the sense that the demand for land is very intense, and the supply is only fixed. People have taken to agriculture, whether profit or no profit, because land alone gives them the subsistence when they have lost their old professions. "The tenant pays the rent and cultivates the soil not because it pays him, but because there is no other outlet for obtaining a bare subsistence, and he is faced with the alternative of starvation." Landlords under these conditions have departed from customary practices and offered their lands to the highest bidders. They have begun to charge full competition rents, although that competition, as shown above, has been only one-sided. There has been heavy rack-renting, and conditions of cultivation have not at all remained secure. This has necessitated State interference in the relations between the landlords and their tenants. State legislation governing the relations between the landlords and their tenants has developed on two lines in India. It

has started from the basis of custom and has taken due notice of competition. Landlords have been allowed to enjoy fair rents and cultivators to enjoy fixity of tenure on the payment of rent. It has already been mentioned in a previous part of this chapter, that the ownership of land in India resides in the State and the recognized classes of landowners. Landlord-tenant legislation in India has resulted in creating a new type of cultivatory tenures in India, whereby the powers of the landlord to increase the rent on his tenant and to eject him out of the holding have been very much curtailed, thus enabling certain classes of cultivators to enjoy the advantages of fair rents and fixity of tenure. The determination, revision and enhancement of rents in India in the case of certain classes of tenants now come within the purview of law. These tenants may be called privileged tenants as opposed to unprivileged tenants, to whom the law gives no protection against the unlimited powers of the landlords. By several Tenancy Acts in different provinces various kinds of privileged tenants have been created, for instance, occupancy tenants, exproprietary tenants, etc. The landlords cannot raise the rents of these tenants at will, when the prices of agricultural produce rise. They can get their rents enhanced by courts only at certain stated intervals, usually of 10 years, sometimes of 7 years, but most frequently at the time of the revision of the revenue settlement of the land. The courts take into consideration the rise in prices and the rents prevailing in the neighbourhood

in the case of the unprivileged classes of tenants on the same quality of land, when they fix rent for the land of the privileged classes of tenants. In certain cases, the courts' powers to enhance rent are limited to a certain percentage. In certain other cases, the Board of Revenue issues an estimate of the rise in prices for the guidance of the lower courts who have to decide cases of rent enhancement. Rents in the case of these privileged classes of tenants are in most cases much below the true economic rent. Tenants are able to enjoy a part of the rental surplus for long intervals of time, because enhancements can take place only at stated periods of time, and not automatically with the rise in prices of the agricultural produce.

Far different is the lot of the unprivileged or ordinary tenants who, generally speaking, receive no legal protection and in whose cases the rents charged are, in most instances, more than the true economic rent. *These tenants are rack-rented.* In some parts of the country which are mostly backward, kind rents (*i.e.*, rents paid in kind and not in coin) still prevail, and kind rents are synonymous with rack-renting.

Let us now briefly discuss the extent of the area under the privileged classes of tenants in different provinces. Where the settlements are ryotwari, as distinguished from zemindari, tenure-holders themselves are the cultivators and they pay revenue to the Government. The rent question does not arise in their case. Moderate revenue assessments in these areas have, however, encouraged subletting, and the evils

of rack-renting have appeared in their fullness. "Under the ryotwari systems of Bombay, Madras and Burma, a large and increasing proportion of the land is regularly sublet at a rent of half the produce." The truth is, wherever there is subletting of agricultural land by the proprietary or cultivatory tenure-holders to sub-tenants, rack-renting prevails. By various pieces of legislation a strong body of occupancy tenants has been created in Bengal, life-tenants have been created in Oudh by the Oudh Rent Act of 1921, tenants in the Central Provinces have been given fixity of tenures at fair rents, about 70 per cent. of the tenants' area in the province of Agra and about a fifth in the Punjab is under occupancy tenants. Legislation for granting life-tenancies to the remaining tenants in Agra has also been passed during the last summer session (1926) of the Provincial Legislative Council, which has limited the powers of the landlords in the matter of rent-enhancement and ejection from the holding.

Thus, it would be found that rents in India are governed by (i) custom, (ii) competition, and (iii) legislation. The *Ricardian law of rent is not applicable to India*. Landlord cultivators pay no rent. Where tenant-cultivators are the rule and the pressure on the good land is very great, the rents are very high; on the other hand, in the case of poorer lands, where the supply is great and the demand is small, the rents are very low. Rents of privileged classes of tenants, such as those enjoying the rights of occupancy, are

fair and moderate, and are conducive to the promotion of the best interests of agriculture. "It is of the utmost economic importance that the man who actually cultivates the soil, should have the energy and resources to cultivate it well," and fair rents enable tenants to retain resources, which enable them to cultivate the soil moderately well. In the case of unprivileged classes of tenants and sub-tenants, there is rack-renting, the rents being in certain cases much higher than the true economic rent. Cultivation of land, therefore, in these cases does not naturally receive as much attention and stimulus as it ought to.

CHAPTER XIX.

LAND TENURE IN THE UNITED PROVINCES.

Closely allied to the question of rents is another important agrarian question, namely, the question of tenures in India. Land tenure ordinarily means the terms or conditions on which the cultivator cultivates the holding. That system of land tenure is supposed to be the best which satisfies the following tests: (i) Does it insure the highest amount of produce? (ii) Does it allow for fair rents? (iii) Does it grant fixity of tenure? (iv) Does it give power to the owner to acquire or use the land for the most beneficial purpose? In some countries of the West, particularly in England, from where the idea of tenures originates, landlords are absolute proprietors of land, having complete proprietary rights over their possession, and the word tenure denotes the various kinds of systems on which those landlords let their holdings to the cultivating classes for the purposes of cultivation. The simplest of these agricultural systems is that of "peasant proprietorship" where the cultivator himself owns the land, a semblance of which is amply found in the province of the Punjab in India. *Métayage* is another land system, found particularly in France, under which the land-owner furnishes all or a certain amount

of capital, such as livestock, etc., and the métayer cultivator and the landowner enter into some agreement regarding the character and extent of the cultivation, whereby the latter receives a certain share of the produce from the former.

There is yet another system which gives the cultivator a freer scope for the exercise of initiative and enterprise, and that is the leasehold system. The land under this system is let to the cultivator for a term of years at a fixed annual rent, on condition that no permanent injury would be done to landed property, and no serious alterations made in it without the consent of the landowner.

In India, however, the term land-tenure is used in a different and rather peculiar sense. In treatises on the revenue law of these provinces, the word tenure conveys a very wide and loose connotation. The different modes of enjoyment of landed property, and the variety of internal constitutions of the village communities, are commonly spoken of as different tenures. But in the opinion of a former settlement officer of these provinces, "the word when correctly used expresses the relation of the landholder to the person or authority from whom he holds his land—that is to say, in these provinces his relation to the State."

Let us now see, what kinds of tenures prevail in the United Provinces. From the point of view of settlement the whole of the United Provinces is divided into two portions: (i) the permanently settled eastern

districts where the settlement of revenue has been fixed for ever, and (ii) the temporarily settled districts where a fresh settlement is made periodically every 30 years with the zemindars. From the time of the rule of Lord Cornwallis, who began by introducing the system of Permanent Settlement in Bengal, recognizing absolute proprietary rights of the landholders in the land, the British Government in India made various kinds of experiments with the land systems, and ultimately it has adopted the following three essential elements in its land policy: (i) that the State is in theory the landlord of all the land in the country; (ii) that the zemindar who has long been associated with the land is the State's revenue agent and, in practice, landowner; and, finally, (iii) that the actual cultivator of the land is a third party who has been cultivating the land for long and has got a claim against ejection, so long as he continues to pay the rent of his land. Land legislation in India has progressed on the recognition of these three cardinal principles regarding the ownership of land and claims therein.

Thus, it would appear that the problem of the land and the people has two aspects: the relations of the Government with the landlords and the relations of the landlords with their tenants. The first one relates to questions of land revenue assessment, that is to say, the share of the rent that the Government takes from the zemindar; the period of settlement, that is to say, the term for which the share of the State is fixed; and other cognate questions. The second

aspect involves the question of rents—their fixation, revision and enhancement—and questions relating to fixity of tenures of the tenant-cultivators.

The Settlement of the United Provinces is called Zemindari in contradistinction to Ryotwari, and Temporary as distinguished from Permanent. The Revenue system is called Zemindari, because the Government enters into revenue settlement with the zemindars of the province and not with the ryots themselves as in parts of Deccan; and it is called temporary because the share of the State in the profits of the landlords is fixed only for a period of 30 years, and not permanently as has been done in Bengal.

The story of the land settlement in the United Provinces is somewhat as follows: The districts of Delhi, Agra and Allahabad were formed into a province, and the pledge of permanent settlement was given to the landlords which was never redeemed. It was only in Benares that the settlement of land-revenue was made permanent. The Government later on changed their policy of permanent settlement. In 1833, Lord William Bentinck made the first regular settlement of revenue with the village proprietors and with zemindars on the principle of joint responsibility for a period of 30 years, whereby the assessment of revenue was kept at 66 per cent. of the rental, and hereditary tenants and tenants with 12 years' occupation were given the right of occupancy. State's share of the rental was, however, later reduced to 50 per cent. in 1855, according to what are called the

Saharanpur rules, and surcharges of about 10 per cent. were added to it in 1871. Oudh, however, was annexed in 1856. There was an opulent class of landlords there, whose proprietary rights were regarded somewhat superior to those of the Agra zemindars. This difference in the rights of the aristocracies led to important results in the conditions of tenancy in the two provinces.

Essentially, however, all proprietors of land, including the taluqdars in Oudh, are zemindars or persons who may receive rent from the cultivators, and pay the land-revenue to the Government. Thus, it would appear that the zemindari proprietary right now corresponds with the obligation "to pay the land-revenue where the land-revenue has not been remitted, assigned or redeemed. Where it has been remitted, assigned or redeemed, the proprietary right resides in those persons who, but for such remission, assignation or redemption, would have been liable to pay the land-revenue, and who, in fact, pay the local rates." Although taluqdari estates in Oudh are a thing *per se*, and the taluqdar is "an opulent and privileged landowner, whose rights are secured by a sanad and confirmed by some legislative enactments," and thus a slightly different class of proprietors from the Agra zemindars, the proprietary tenures are similar in the two provinces of Agra and Oudh. There is unity among all the so-called different proprietary tenures. "The tenure in which proprietors throughout the provinces hold their estates is, with some exceptions,

simple or undivided. They hold direct unrestricted control over their estates, subject to the payment of the Government revenue and cesses, to certain police and settlement obligations, to individual encumbrances created by themselves, and to the law respecting the rights of tenants of certain cultivated or culturable fields." Thus, "all tenures are reducible to one broad basis, and the complicated properties which belong to many of them, rather arise out of local customs and the laws of inheritance, than out of the tenure itself. . . . All land is held from the Sovereign on condition of payment of half of the rent received (or that might be received) from it, and no tenure can be split up or dismembered without the Sovereign's consent." To this simple basis all the apparently various tenures may be reduced.

VARIOUS FORMS OF TENURES.

- (i) *Single Zemindari* where there is one proprietor.
- (ii) *Joint Zemindari* where there are more than one proprietor who hold the land in common.
- (iii) *Pattidari* where there are more than one proprietor who hold the land separately, and where interests are recorded by fractional shares.
- (iv) *Bhiyachara* where there are more proprietors than one who hold the land separately, and whose interests are recorded by areas actually in the possession of each.
- (v) *Imperfect pattidari or Bhiyachara* where there are more than one proprietor who hold part of the land in common and part, separately on either tenure.

In origin, the pattidari tenure is disintegrated joint zemindari. In origin, the Bhiyachara tenure is either disintegrated joint zemindari, where the fractional shares have been lost sight of, or ryotwari, articulated by joint responsibility.

The unit of revenue management is the mahal or estate, which may be one village, or several villages, or part of one village, or parts of several villages. All the proprietors of the mahal (*i.e.*, where the tenure is not single zemindari) are jointly and severally responsible for the land-revenue fixed on the mahal. Joint responsibility for the payment of revenue is the distinguishing feature of the zemindari form of settlement. In case of more than one proprietor, land-revenue is paid, according to law, through the lambardars chosen by the proprietors concerned, subject to the approval of the collector. In eastern districts, the revenue is increasingly realized directly from the co-sharers. A system of impartible estates has also been instituted by the Government, which is optional.

Quasi-proprietary and Cultivating Tenures.—Persons of these two classes are numerous in these provinces. Some of them have both heritable and transferable rights, while others have only the former. Among those whose rights are both heritable and transferable, may be included: (*a*) inferior proprietors when the settlement has been made with superior proprietors, (*b*) permanent tenure-holders, and (*c*) fixed-rate tenants; and (*d*) in Oudh, sub-settlement-

holders; and (e) other under-proprietors. Among those whose rights are only heritable but not transferable, (or transferable only by consent between persons in favour of whom as co-sharers in the tenancy such right originally arose, or who have become by succession co-sharers therein) may be included (a) occupancy tenants in Agra, and (b) occupancy tenants in Oudh, (c) permanent lessees in Oudh and (d) tenants holding under special agreement or decree, or given leases for the term of a settlement in villages granted by Government.

In Agra, occupancy tenants have acquired their rights (1) by order of the first settlement officer at the first regular settlement between 1833 and 1849; (2) as ex-proprietary tenants in the home-farm; and (3) by twelve years' continuous cultivation, as defined in the Agra Tenancy Act of 1901. In the province of Agra, such tenants occupy 70 per cent. of the tenancy area under cultivation. In the province of Oudh, however, all occupancy tenants are ex-proprietary tenants. They occupy only 2 per cent. of the area under cultivation.

“ The value of an occupancy right is great. The holder of it cannot be ejected except for arrears of rent, and his rent can only be enhanced by written agreement, or by order of a revenue court, and then only under certain prescribed conditions. In Agra, the rents of occupancy tenants are not privileged, and are raised periodically; in Oudh, the rents of occupancy tenants are privileged to the extent of two annas in

the rupee below those of statutory tenants. In both provinces, ex-proprietary tenures created by the Acts of 1901 are privileged to the extent of four annas in the rupee below the rate paid by non-occupancy tenants.

“ The Oudh Rent Act of 1921 has made important changes in the rights of statutory tenants in that province. Under it, every such tenant is entitled to receive a lease for ten years, and at the close of every such term to receive another similar lease, provided that he agrees to any enhancement of rent claimed by his landlord, or in case of dispute, ordered by the court. Special provisions have been made for the fixing of rent-rates to be used by the courts in determining fair rents. When a statutory tenant dies, his heir is entitled to retain the holding for a further period of five years, but is thereafter liable to ejection at the pleasure of his landlord.”

Legislation almost on identical lines applicable to the Agra Province has recently been passed by the provincial legislature, in order to provide better security of tenure to the hitherto tenants-at-will. The only unprotected classes of tenants after the passing of the two recent Acts for the Provinces of Agra and Oudh would be the tenants' tenants, or the tenants cultivating the *sir* lands of the zemindars.

CHAPTER XX.

MOBILITY OF CAPITAL IN INDIA.

It is a commonplace of economics that wealth-production very much increases as a result of the increased use of capital. The greater the amount of capital used, the greater the wealth-production, and also the greater the savings of the community. All these three things go together. But if larger and larger amounts of capital are to be used for productive purposes, it is necessary that capital should be available to those engaged in production at a low rate of interest, and there would be tendency for the rate of interest to be low when systematic attempts are made to mobilise so far as possible all the savings of the community to make them available for productive use. Wherever there are savings, therefore, they should be used for productive purposes, and thus transformed into capital. Mobility of capital means the free flow of savings of the community into productive channels. The larger, therefore, the number of such institutions in the country as help capital to perform productive operations efficiently, the greater is the mobility of capital. There are usually two ways in which the savings of a community find their way into productive

lines, namely, either by direct investment in business, industry, Government or some other kind of stock, or indirectly through the bank deposits. Those who have large savings for which they have no use in the immediate future, and can afford to take risks, usually make direct investments. Those, on the other hand, who have small savings, or savings the use of which they can allow to others only for a short period of time, or have no time or inclination to go into the merits and demerits of various concerns in which to make investments, usually take the line of least resistance, and put their savings at places from where they will get a small return, but their savings would be safe and can be had at call. It is not suggested by all this, that there is no room for a small investor in the present condition of things. The principle of joint-stock companies, whereby large amounts of capital are raised by means of small shares subscribed by the general public, is so simple and has so much reduced individual risks, that any small investor can put in his money in the shares of any company, the business of which he regards as safe and sound. Let us now see what are the more important purposes for which capital is generally required in India, and how far we are equipped with the proper machinery for the purposes of raising those amounts of capital by the mobilisation of the savings of the community. Broadly speaking, demand for capital exists in India (i) for commercial purposes, (ii) for industrial financing; (iii) for agricultural financing, and (iv) to meet the huge requirements of the

Government and other local bodies like municipalities and port trusts for capital outlay on such things as railways, irrigation works, etc. The sources of supply are the savings of the community (i) as shown by investments in the joint-stock companies, Government loans, and private business, and (ii) as represented by bank deposits. There is a third important source of the supply of capital used in India. Large amounts of foreign capital are imported into the country on both public and private accounts, as represented by the sterling loans of the Government of India and the capital of the foreign joint-stock companies working in India in such important businesses and industries as banking, insurance, jute, tea, coffee, coal-mining, oil-sinking, etc. We shall now examine the existing capital resources of the country, and discuss the possibilities of their further development.

There is no doubt that we have been making steady progress in the mobilisation of our capital resources during the period extending over the lifetime of a generation. War accelerated the pace of our progress in all directions. The External Capital Committee has very forcibly and accurately described the existing position with regard to our capital resources in the following words: "There is sufficient *potential* capital in India to meet the larger part of India's industrial requirements, but that it is timid, conservative, and requires to be drawn out. That internal capital is available, is shown by the increase in Government rupee loans from 145 to 358 crores, and

in the paid-up capital of joint-stock companies from 80 to 254 crores, between 1913-14 and 1923-24, an increase of 387 crores. The fact, however, that the net imports of gold and silver since 1913 amount to 482 crores, is evidence that large resources are still being hoarded, which might be invested." The picture of our capital resources drawn in the above extract would be complete, if studied with the following figures regarding the capital, reserves, and deposits of the Imperial Bank, exchange banks and the joint-stock banks taken from the Statistical Tables relating to banks in India (1923 publication):—

(000 omitted.)

YEAR.	IMPERIAL BANK.		EXCHANGE BANKS.		JOINT-STOCK BANKS	
	Capital and Reserves.	Deposits.	Capital and Reserves.	Deposits.	Capital and Reserves.	Deposits.
1914 ...	7,64,17	45,65,60	36,97,20	30,14,76	4,48,52	18,37,12
1923 ...	10,17,71	82,76,45	1,40,10,30	68,44,28	10,84,78	47,69,32
			Capital and Reserves		Deposits	
	Total for 1914		49,09,89		94,17,48	
	" " 1923		1,61,12,79		1,98,90,05	

It would thus appear that our capital resources in the shape of both investments of all kinds and deposits showed a tremendous increase in the decade 1913—23. Capital of joint-stock companies rose by 174 crores, Govt. rupee loans increased by 213 crores and bank deposits developed by 104.8 crores. All this is appreciable progress, but the country's resources are vast and await industrial development. The progress made is

inadequate for and incommensurate with the vast capital requirements of our country. The words used in the extract quoted above from the External Capital Committee Report are full of significance and pregnant with meaning. Three important remarks have been made in the extract : (1) that India's potential capital is large enough to meet her growing industrial requirements, (2) that it is timid and conservative, and (3) finally that it requires to be drawn out.

(1) That our potential capital is very great, may be well explained by the fact that we have displayed remarkable capacity for expansion in the development of our capital resources during and after the war. Our country possesses a large store of capital resources but much of it is unproductively locked up in bullion and jewellery. Then, our exports are usually greater than our imports. If only a part of the gold and silver that we now import in return for our surplus exports could instead of being hoarded or converted into jewellery be made available for industrial purposes, there would be rapid development in the resources of the country and not only shall our dependence on foreign capital be decreased, but we shall also be able to substantially replace foreign capital by indigenous capital.

(2) The timid and conservative character of our capital may be judged from the fact that, although considerable investment of capital has taken place during the last half a century, the progress has been on restricted lines, and new enterprise has been small.

Major industries in India like textile, mining and leather were few until recently. Considerable investments have, however, been recently made in steel works at Kulti and Jamshedpur, portland cement works in different parts of the country, hydro-electric installations in Kashmir, Mysore and Western Ghats for the use of electric energy in large towns. There is a general disinclination to invest money in all industrial concerns, particularly new ones. Investment of capital, wherever it is made, follows traditional lines and does not seek new channels. Over-investment of capital in small industries like flour-milling, cotton-ginning, and paddy-husking in small towns is not a rare phenomenon. All this shows that capital is available and seeks industrial outlets for investment, but it is afraid of taking risks and is consequently employed only in those few industries that are at once safe and attractive. Thus, investment in land by purchase or mortgage still appeals most strongly to certain classes of persons, both urban and rural.

The Indian investor is reluctant to invest in industries, unless they are practical and become established. The directions for investment, therefore, from the Indian investor's point of view are insufficient. But where management has earned public confidence, money is readily forthcoming. In spite of the fact that new industries in India are those that have become old and established in other countries, the risks of starting new industries are proverbially great owing to the want of organisation, consultation,

information regarding raw materials and inexperience of industrial problems.

(3) Our capital requires to be drawn out. It has already been shown how the capital, reserves and deposits of various kinds of modern banks in India have rapidly increased during and since the war. There is no doubt that of late there has been considerable banking development in the country. Many new banks have been started, and new branches have been opened at many places. The Imperial Bank of India alone opened 78 new branches in four years up to December 31, 1924. All these banking activities have stimulated savings and encouraged banking habit in the people. But still there are only some 100 head offices of banks and some 300 to 400 branches of banks throughout the whole country, many of the bank branches overlapping. That the banking facilities in the country are inadequate for our population and resources, is shown by the mere fact that 20 per cent. of our towns having a population of 50,000 persons or over and 75 per cent. of our towns having a population of 10,000 persons or over have no modern bank at all. Extensive tracts of the country including both our smaller towns and rural areas, have absolutely no banking machinery which might mobilize the sayings of the community and create banking habit in the people. The smaller trader, the artisan and the cultivator thus keep no bank connections. The volume of business carried on by these people is sometimes sufficiently heavy to justify the establishment of a

branch bank at particular places, or a bank branch working on particular days in the week.

The whole difficulty is that there is a kind of mutual want of confidence between the two parties. All the above classes of persons, and a very large section of those engaged in the internal trade of the country, are still largely financed by the money-lender class, which charges a very high rate of interest for such capital as it lends to these different classes of persons. The prevailing high rate of interest for these important sections of the community has prevented them from using large amounts of capital on such productive purposes, as the development of agriculture and many small industries. Internal trade of the country has also not fully developed owing to the same reason. The problem of the organisation of rural credit is very huge, and the co-operative credit movement, which is intended to organise capital in rural areas and create additional credit facilities for the artisan classes, is still in its infancy. It has been very aptly remarked that what India wants to-day is more banks and not more bankers of whom she has many even at the present time. Capital is there in the mofussil, but it is unorganised, and the transfer of money is a personal transaction between the payer and the recipient. Therefore, there is not only the necessity of extended banking facilities, but also that of modernising the indigenous banking system, so that it may be fitted into the remaining banking machinery of the country.

There are a few more important points regarding the mobility or immobility of capital in India that require special mention. We find that there is no specific provision for industrial financing in our country. Our present joint-stock banks from the very nature of their operations cannot undertake industrial financing. They receive short-term deposits; they must, therefore, keep their assets liquid in order to meet an unforeseen heavy call. Under these conditions, they cannot lock up their money in industrial shares and securities. In countries like Germany and Japan, there are special industrial banks, whose sole business it is to finance industrial enterprise by granting long-term credit facilities. They arrange to secure long-term deposits for this purpose. In England, industrial financing is carried on, not by any industrial banks, but by some investment syndicates and corporations, and company-promoting firms who carefully examine the industrial projects that come before them for financial help and grant financial help to deserving industrial concerns. In India, unfortunately, the whole thing is dependent upon the goodwill and reputation of the prospective directors of a new company, and the private influence and efforts of the firms of underwriters who may or may not be in a position to raise the necessary amounts of capital, even for the most deserving projects. Industrial development of the country thus suffers a great deal.

Another important thing is, that the Indian investor fights very shy of modern banking and

industrial transactions. The slightest panic in the industrial and commercial world takes the ground off from beneath his feet. He has to be trained to make direct investments, and for that a transition stage is necessary. Special efforts are, therefore, required for the encouragement of investments in those lines, where the savings of the hesitating investor may be absolutely safe. These lines are Post Office Savings Banks, the Imperial Bank, Postal Cash Certificates, and Government securities. All these investments enjoy the confidence of the different sections of the community, and the investor is found to be more and more free of apprehensions with regard to these investments. If at such an opportune time Government loans are more widely advertised in vernaculars, if public debt office facilities could be extended to more important commercial centres besides the Presidency towns and if more money markets could be opened for broking Government and other first-class industrial securities, immense possibilities for India's financial development would be opened out, and the shy investor would gradually lose his shyness and be willing later on to make direct investment in, industrial concerns. If side by side with the above activities steps are also taken to make the use of credit instruments, such as cheques, drafts and bills of exchange, more popular, and the growth of long-term credit is encouraged by the starting of new agricultural and co-operative banks, our progress in banking and financial development would be all-sided.

It now remains for us to summarise the essential features of the capital resources of our country. It is apparent, that the wealth possessed does only a little amount of productive work owing to its inactivity. Capital has been sunk in large industries in the country, but the number of such industries has remained very small, and their growth has been comparatively slow. Investment of capital follows traditional lines in India, and in the case of some well-established industries overinvestment is not an infrequent phenomenon. Vast areas of the country still remain without banking facilities. What we call the modern banks grant only short-term loans for commercial purposes, usually for a period not exceeding six months, and only to big business-men or on the security of well-known shares and securities. The middle-class industrialists and the traders find their position very difficult, who cannot satisfy the requirements of a modern bank in order to get accommodation. There are no facilities in the country for industrial financing in the shape of industrial banks or investment syndicates, and long-term credits are absolutely unknown. The country is still very largely dependent upon foreign supplies of capital for Government and private requirements, although in recent times Government rupee loans have been vastly more successful than they were before the war. Whereas in the Indian money market a loan of 5 crores was launched with a considerable amount of hesitation and misgiving before the war and was considered to be a

record demand on the Indian money market, the war loans of 1917 and 1918 yielded 40 crores and $51\frac{1}{2}$ crores, respectively. The war has changed the outlook of the people towards Government loans, and they have begun to regard investment in Government loans as a safe and remunerative source of income. Another important financial development of the war is the evolution of the system of Postal Cash Certificates, which have practically become a permanent feature of the Government borrowings, and they tap sources from which subscriptions to ordinary loans are not receivable. These cash certificates are purchased mostly by the small investors, to the extent of several crores of rupees annually. All these things show that the shyness and conservatism of our capital is being gradually removed, and as is perfectly natural, it is first seeking only those channels that are at once safe and attractive. This transitional period, however, would not take long to pass, and capital would freely seek the most productive channels before long.

CHAPTER XXI.

THE CO-OPERATIVE MOVEMENT IN INDIA.

The repeated occurrence of famines in India in the last quarter of the nineteenth century, resulting in misery, starvation and loss of life of large numbers of our rural classes, led the Government in India to appoint, from time to time, various commissions, committees and special officers to enquire into the causes of the periodic prevalence of wide-spread distress and suggest remedies. All these enquiries brought into bold relief the salient features of the situation. It was stated that the peasant was unable to withstand the shock of a wide-spread failure of the monsoon. The repetition of such failures broke his backbone. He, therefore, fell into debt which he could not easily repay, his income being uncertain and fluctuating. He easily fell into the clutches of the moneylender, who for such credits as he gave to the peasant in times of distress, charged a very high rate of interest, took away his produce at the harvest time at prices to be dictated by himself and often got the whole of the property of the agriculturist put to auction in order to satisfy his claims. Land alienations were frequent. Credit was facile but not cheap, it was offered not so much according to requirements as according to the capacity

of the peasant borrower. The systematic recording of rights in the land on the one hand, and the rise in the prices of agricultural products on the other, brought about a rise in the land values, which enabled the land-owning classes to borrow freely at high rates of interest large sums of money for good, bad or indifferent purposes. The agricultural classes did not borrow money for land improvements, which might have resulted in increasing their produce, and consequently their famine-resisting capacity. All these conditions were ruinous to the peasantry, and the attention of the Government in India was repeatedly drawn to the state of affairs prevailing in the rural areas. The problem before the Government was, how to ameliorate the lot of the peasantry in India. Various palliatives were from time to time adopted in order to bring relief to those classes, but they did not fulfil all expectations. The Land Improvement Loans Act and the Agriculturist Loans Act were passed in 1882 and 1883, whereby Government loans as *takavis* could be advanced to the cultivators at a low rate of interest on the security of their land or their tenancy-right, to be repaid in easy instalments. But the agency of the revenue staff, through whom these loans were distributed and collected, proved harassing and extortionate. Proposals for starting an Agricultural or Land Mortgage Bank were mooted, but they did not come to maturity. Where the evil of usury had grown enormously, for instance, in the Punjab, and land transfers from the cultivating tribes to the money-

lending classes were very frequent, legislation was passed, putting a bar on the power of the land-owner to alienate land to non-agricultural classes. The Land Alienation Act of the Punjab passed in 1900 restricted the power of land-holders to encumber or alienate agricultural land, thus reducing their borrowing capacity. The problem of cheap and at the same time provident credit to the agricultural classes still remained to be solved. Sir F. Nicholson, deputed by the Madras Government for studying the co-operative movement in Europe, submitted his report in 1895—97, strongly advocating the introduction in India of co-operative credit societies on the lines of the German rural societies founded by Raiffeisen. The Co-operative Credit Societies Act was ultimately passed in 1904. About the same time, a comprehensive programme of canal construction was drawn up for a period of 25 years, which was intended to reduce the dependence of the people on the monsoon rains. The Act of 1904 made provision for the incorporation and registration of credit societies, and for the appointment of a registrar in each province to undertake the work of registration, audit and liquidation of societies.

The essential features of the co-operative credit societies that began to be established soon after the passing of the 1904 Act, were the same as those of the Raiffeisen type of societies in Germany. These societies were *voluntary* and *democratic* organisations, formed for the purpose of promoting the economic good of their members in the sphere of finance in a

legitimate and honest manner. A co-operative society, as established under the new Act, is an association of not less than 10 members, drawn from the same class, area or circle, combined together for the purposes of providing facilities for credit to the members. It is assumed that such members should have an intimate mutual knowledge, and be personally very honest. They grant loans to their members only, and only for productive purposes. Loans can be granted, even for long periods, with facilities for repayment by instalments, but punctuality in payment is the essence of these transactions. The liability of the members to pay each other's debts is unlimited. Each member of the society is responsible to the extent of his entire property for the losses of the whole society, suffered on account of any of the members of the society having gone wrong. This is the pivot of the whole co-operative credit machinery, and the author incorporated this provision into the scheme, so that all members may keep a constant watch and exercise a healthy influence on each other in the matter of the disbursements of money. As the object of these societies was to obtain loans from outsiders at cheap rates on the system of joint responsibility and lend the funds to their members on slightly higher rates, and not profit-making, it was provided that the profits thus accruing from borrowing and loaning operations to the society, should remain undivided and indivisible. The funds of such societies usually came from loans from outsiders, but deposits from members were accepted and even encouraged.

Sometimes small amounts of money were also raised as share capital. All the officers of these societies, such as the secretary, and president, etc., were honorary, and undertook to maintain the records of the society without any fees or commissions. The constitution was wholly democratic, one vote for each member and equal voice in the administration of the society funds, for every one was responsible for the loans contracted by the society to the extent of the whole of his property. All the members sat together to decide in a body, what loans to take from abroad and how much loan to grant to each of the members.

These in short were the main features of the co-operative credit societies that came into existence in rural areas in India after the passing of the 1904 Act. The Delitzsh type of societies, or the urban societies, differed from the rural societies in the following material respects:

As these societies sometimes included persons coming from a wider area, with whom only small mutual acquaintance could be possible, the liability in the case of urban societies was only limited. Such societies, usually, raised a share-capital, paid their workers' fees and commissions, declared dividends, and loans were granted even for non-productive purposes. Such societies were mostly suited for urban conditions.

Societies on these lines were established till the Act was amended in 1912 in the light of experience gained. It was felt that the scope of the old Act was

narrow. So the amended Act extended the co-operative movement to other forms of more complex co-operation. Sale, purchase, and insurance societies could now be registered. Primary societies could be established by the first Act, but it made no provision for the registration of secondary or financing societies. The amended Act recognized and allowed the registration of secondary bodies in order to finance, co-ordinate and supervise the primary societies. The Registrar of Co-operative Societies was now authorised to depute a member of the staff for work. An audit fee could, under the new Act, be charged from the societies. Rural and urban distinctions of societies were abolished, and limited liability societies could be started even in rural areas, and rural societies could declare profits. The following figures will show the progress of the movement in India during the last few years:

	1919	1925
Co-operative Banks ...	360	475
Societies of all kinds ...	37,000	62,000
Members ...	13,00,000	23,00,000
Capital ...	Rs. 19,00,00,000	Rs. 44,00,00,000

The above figures show, how slow but steady progress is being made in the development of primary as well as feeder societies with a rapid increase in the membership and working capital.

90 per cent. of our societies are primary agricultural societies, including less than a thousand primary agricultural societies for other than credit purposes. Thus, the movement is making headway though

slowly, in the quarter where it was most needed. Non-agricultural societies are only 9 per cent. of all the societies. The above percentages include 3 per cent. central banks, unions and other secondary institutions which serve as feeders of the primary societies. At places, credit societies also arrange collective purchases and co-operative marketing.

It may be pertinent to ask at this stage, why the co-operative credit society is the dominant type of societies prevailing in India. "The credit society," says Stricland, "is the foundation of the co-operative building in a peasant community." It is hardly necessary to point out that in an agricultural community like our own, illiterate and improvident, used to litigation and extravagant habits, highly sunk in debt and periodically suffering from bad harvests, converting savings into hoards and borrowing and purchasing freely from the money-lender, without keeping any account and delivering to him the whole produce at harvest time, the co-operative credit society could be the *only* institution which could bring relief and promise of a better lot to the rural classes. It was hoped that these societies would organise rural credit, link the rural money-market to the town money-market by enabling the societies to borrow money in the town at a cheaper rate of interest, discourage the habits of hoarding on the part of the rural classes and mobilise their small savings, thus making rural capital more fluid. Greater mobility of capital would have meant a fall in the rate of interest in the rural areas. The

system of unlimited liability would check people from borrowing according to capacity, and thus unnecessary and unproductive debts would be avoided. Peasants would become more thrifty, and with the help of their small savings and the productive use of capital they would be in a position to increase their wealth-producing capacity, thus enabling themselves to withstand the lean years successfully, and be free from the clutches of the money-lender who is the unholy combination of the supplier of money and goods and purchaser of their produce. It was thought that the co-operative movement would very materially reduce the middle-men's profits, whether in monetary or commercial transactions.

Whether the movement has achieved all that it was intended to do, is more than what can be precisely said at this moment. The rural indebtedness is popularly estimated at 500 crores of rupees, and the working capital of all the co-operative societies in India from all the sources including shares, deposits and reserves, comes only to 45 crores of rupees. At this rate, it may take us a long time to remove the present indebtedness, much more time to achieve the desired end, namely, the organisation of rural credit on sound and proper lines, when all the activities of the agriculturists would be conducted on the co-operative principle, including in it a system of long-term credits to agriculturists for productive purposes at a cheap rate of interest, and mobilisation of their small savings, arrangements for collective purchases

and sales of agricultural requirements and produce,
and the carrying on of cattle insurance business and
such other useful forms of activity.

CHAPTER XXII.

BUSINESS OPPORTUNITIES IN INDIA.

Net profits mean the entrepreneur's reward for risk-taking. But the actual profits may include an income of several kinds. There are the wages of superintendence, speculative and bargaining profits, sometimes chance and monopolistic profits, and profits due to ignorance or want of business knowledge on the part of the people. In the following lines we shall try to find out what opportunities exist for profit-making in India at the present time.

There is plenty of land in India which supplies us with an abundance of natural resources of all kinds. Good soil, forests, mineral wealth, cattle, sources of power—in respect of all these facilities, the Nature is bountiful to us, and we can not only get enough supplies of the food-stuffs that we require and even to spare, but also very important raw materials for the development of our manufacturing industries. Thus, we can rest assured, that our natural resources are sufficient for our food requirements and the development of many manufacturing industries. With regard to the second factor of production, namely, labour, more or less similar remarks are applicable. India is rich in man-power. Countries like the United States of America, and the United Kingdom and Germany, with

much smaller populations, produce considerably more wealth than we in India do, in spite of all our large natural resources and unlimited numbers. There is one important qualification, however, in the case of labour: it is that the proportion of our unskilled to skilled labourers is very large, and the productive capacity of the average Indian labourer is very low. Still, with better organisation and a larger number of technical institutions, the efficiency of the labourers can be considerably increased. The question of the supply of labour thus, it would be found, does not offer insuperable difficulties in the way of our industrial development. So far as capital is concerned, there is no doubt that the amount of accumulated savings of the people in the shape of such capitalistic goods as buildings, machinery, and other such forms of fittings and fixtures is smaller than it is in many other advanced countries of the world; but we are in a state of transition from a purely agricultural to an industrial country, and even the amount of our existing resources of artificial wealth cannot be regarded as in any way very insufficient for our industrial progress. Our fluid capital in the shape of the savings of our people was considered to be very shy before the war. That charge cannot be very much sustained now. The amount of potential capital in India is very large, and more savings are being added to it annually. What is required, is to bring its flow into proper channels for the development of the country's hitherto undeveloped resources. In some parts of India like Bombay,

in the words of the Industrial Commissioners, the representatives of well-established firms "experience comparatively little difficulty in obtaining capital for any well-considered proposals which they are able to put forward."

Thus, we are rich in natural resources, have plenty of labour, and can mobilise capital in the country. The conclusion is irresistible that what we lack most in India, is organisation. If it can be brought about, there is wide room for profit-making. Our average yield from the soil is very low, and if only agriculture could be developed on scientific lines, there is much scope for increasing the wealth-production and profit-making. Our foreign trade amounts to some 650 crores of rupees annually, and the internal trade several times more. Thus, there is room for talent in the trade. Our natural resources like forests, minerals and fisheries await development. There is room for an organiser's skill in the exploitation of those resources. Where foreign capital is making profits, for instance, in mining, tea, jute, and other industries, there is no reason why indigenous agency should not make a headway. A private estimate of the profits made by the foreigners in India is of £27 million. In fact, there is vast field for the investment of capital in many directions, and the amount of national wealth can be increased many-fold. We now take up the case of a few typical industries, from which it would appear how we can make progress in productivity, utilising our materials locally.

Sugar.—The area under sugarcane in India is something like 2.7 million acres. This area is nearly half of the total area under cane in the whole world. Many parts of the country are specially suited for sugar cultivation. Still it was stated by the Sugar Committee that India's outturn of actual sugar per acre is less than one-third that of Cuba, one-sixth of Java, and one-seventh of Hawaii. Thus, India occupies a very insignificant position as a producer of refined sugar, and largely depends for its requirements upon foreign supplies. In India, only about 125,000 tons of white and brown sugars are manufactured every year, and our imports amount to over 7 lakhs of tons valued at over 20 crores of rupees. If the sugar industry could be organised in all its stages—cultivation, extraction, and refining—we should not only be in a position to save all these 20 crores of rupees and odd, but also be an important supplier of sugar to other countries of the world. The position to-day is very unsatisfactory and disappointing. Java sugar can land at an Indian port at the low price of Rs. 5-14 per maund—a price at which the local manufacturer of sugar can never put the commodity in the market. Even *gur* sometimes sells at double the price at certain places during the harvesting season. Thanks to the high import duty and the religious prejudice against the imported sugar, our indigenous industry is surviving; otherwise, under the present circumstances of world-production of sugar, the industry should have been driven out of existence long ago.

Cotton Manufacture.—Only a third of the cotton produced in the country is locally worked up, and the rest goes out to foreign countries in a raw form. After rice and wheat, cotton, perhaps, occupies the largest area under cultivation in India, being some 23.3 million acres. The annual output amounts to some 6 million bales. The cotton grown is mostly of short-staple quality. About half of the exports are taken by Japan, a part of the supply is also taken by the United Kingdom. How unfortunate it would appear, under these circumstances, that India should be exporting large quantities of this raw material and importing yarn and piece-goods valued at over 80 crores of rupees annually from the United Kingdom and Japan. With better organisation of the cotton mill industry, it should become possible to dispense with, at least, a part of the supplies from abroad. The foreigner purchases our raw material, takes that home, manufactures it, bears the cost of carriage back, pays a duty of $11\frac{1}{2}$ per cent., at our port (from which our product is free), and is still in a position to undersell our producers in our own market. That shows that something is, surely, wrong in the state of Denmark.

Hides and Skins.—Hides and skins valued at 6 or 7 crores of rupees are still sent abroad in an undressed form. The tanning materials are found in our forests. If the hides and skins are only tanned, and no other manufacturing is done, they would fetch double of what their existing value is, and would give occasion for the investment of large amounts of capital and the

employment of large numbers of labourers.

Oil-seeds.—The area under oil-seeds in India is some 14.8 million acres, and the produce amounts to some 3 or 4 million tons annually. The indigenous methods of oil-extraction are very crude. About a third of the total produce goes out to foreign countries in raw form. If the whole amount of oil-seeds is locally crushed by improved methods of oil extraction, there would be so much gain to the country in respect of oil and its by-product, cake, which is very much useful as a food for cattle and for manuring.

Jute.—The jute industry is steadily improving its position and consuming a larger and larger share of the Indian produce. Still the foreigners take about half the raw produce, valued at some 29 crores of rupees. The total produce amounts to some 10 million bales. Thus, with a local monopolistic supply of the raw material and cheap labour, the industry is capable of further expansion.

There are many other important raw materials, such as lac, metallic ores, rubber, mica, and bones, which are exported to-day in a raw form, and most valuable industries can be built up in the country if they are locally worked up. Materials also exist in the country in abundance for industries like paper-making, glass-blowing, match and cigarette manufacturing. India is a veritable treasure-house of materials, and if only talent, enterprise, and capital are forthcoming, her present wealth can be increased several fold.