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INDIAN ECONOMICS

A COMPREHENSIVE AND CRITICAL SURVEY OF THE ECONOMIC PROBLEMS OF INDIA

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PREFACE

IN fully revising the book for this (the fourth) edition opportunity has been taken to bring facts and figures up to date. The latest census figures, recently made available by the Government of India in the *Abstract of Tables giving the main statistics of the Census of the Indian Empire of 1931,* have been incorporated in a special statistical appendix at the end of the volume. The effects of the economic depression on Indian agriculture and the export of our agricultural products have been noticed and the protectionist measures recently adopted in the interests of wheat and sugar have been reviewed. The *Report of the Central Banking Enquiry Committee,* which was not available at the time of the last edition, has now been fully utilized particularly in dealing with the problem of Rural Finance. The sections on Village Uplift have been revised in the light of recent literature on the subject.

POONA
March 1933

G. B. JATHAR
S. G. BERI

EXTRACTS FROM PREFACE TO FIRST EDITION

ALTHOUGH the book is primarily intended for students reading for the B.A. Honours and M.A. Degrees in Economics in the different universities in India, we hope that it will be found not unworthy of the attention of teachers and economic experts. We also venture to think that the work will be found useful by publicists and legislators. It offers a main line of orientation to those who wish to become acquainted with the principal economic and politico-economic problems before the country—problems which directly affect the prosperity and ought to engage the attention of every responsible citizen.

The fundamental problem of writing a comprehensive treatise on Indian Economics is that of selection from an enormous mass of material which, moreover, is scattered through a considerable literature, much of which is fugitive in character. We have tried to condense it without rendering it indigestible and unintelligible.

We have approached controversial questions with absolute impartiality and moderation and have endeavoured to maintain the necessary 'objectivity of vision and evenness of temper'. Our aim

has been to be accurate rather than exciting, useful rather than polemical.

It will be noticed that we have treated, more fully than usual, agricultural and rural problems which hitherto have tended to be neglected. We consider the space we have allotted to agriculture and allied topics abundantly justified in view of their importance and the growing public interest in them.

June 1928

PREFACE TO THE SECOND EDITION

THE very generous praise bestowed upon the book by teachers and students of Indian Economics and the rapid call for a second edition indicate that the book has supplied a long-felt want. Events of economic import have of late been moving with extraordinary rapidity in India. An attempt to bring the treatment of the subject up to date has, therefore, necessarily meant the inclusion of much additional matter. As it was, however, desirable, so far as we could help it, not to increase the size of the book in the revised version, the original text has been subjected to a rigorous examination with a view to economy of space. We hope, however, that in the process of cutting out the extra trimmings, nothing of real importance has been sacrificed.

June 1930

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CHAPTER I

INDIAN ECONOMICS: SCOPE AND DEFINITION

1. **Definition.**—Indian Economics, as generally understood, may briefly, simply and sufficiently be described as a study of the principal economic problems in India with an analysis of their probable causes and of any measures that have been or might be taken to deal with them. An examination of the economic position of the country will naturally lead to a criticism or appreciation of public policy in India and to the formulation of schemes for effecting improvements in the economic condition of the country. The point of view throughout will be national, the object aimed at being, first and last, the material advancement of the Indian people. It is not altogether superfluous to insist on this because the danger of its being ignored or forgotten is not purely imaginary. For example, Sir John Strachey, presenting his Financial Statement in 1877, repudiated the doctrine that it was the duty of the Government of India to think of Indian interests alone, and confessed to the sentiment that there was no higher duty in his estimation than the duty which he owed to his own country. This is really an echo of the old colonial policy which regarded the overseas possessions of England as primarily intended to serve English interests. We can obviously have nothing to do with this view of the matter. Nor can we consent to any sacrifice for the greater glory of the Empire, of which we are a part, unless we are convinced that the sacrifice asked for is ultimately to the national advantage. As a general rule, we must put our country first without hesitation and our wider and less immediate loyalty to the Empire, second. This has also been the attitude of the self-governing colonies who have primarily sought to advance their own national interests; and their love for the mother country, the Empire, or the world as a whole has always been tempered by their determination to raise themselves to the highest possible pitch of material prosperity. And it is a matter of common knowledge that in the pursuit of this object they have sometimes adopted measures—for instance, in connexion with their tariff arrangements—resulting in immediate injury to the mother country. This still remains a substantially correct description of the attitude of the colonies, in spite of the fact that the experiences of the War have somewhat weakened the spirit of jealous national individualism in economic matters and increased the willingness on

the part of the constituent members to undergo some sacrifice, if necessary, in order to knit the Empire closer together. India also desires similar freedom to regulate her economy principally in her own interests, without necessarily denying the interrelation of national economy on the one hand, and imperial or world economy on the other.[1]

To sum up, then, Indian Economics is a study of the present economic position of India from the Indian national point of view.[2]

2. **A second possible meaning.**—The sense in which, following common usage, we propose to employ the term Indian Economics is perfectly natural and otherwise justifiable, and in justification of one particular use of a term it is really not necessary to prove that it is incapable of bearing other meanings as well. As a matter of fact, the term Indian Economics is capable of yielding at least two other meanings.[3] In the first place, it may mean the history of Indian economic thought from the earliest times to the present day. Possibly such a history may make rather uninteresting reading if, as is alleged, there is no continuous development of thought to trace—no movement of thought to record—and if the ideas held in one century are more or less the ideas held in the succeeding centuries, until we reach quite recent times when we have to reckon with western influences. It is also likely that such a history will be discontinuous in the sense that it will have to be frequently punctuated by admissions of ignorance. For, as things stand at present, we know next to nothing about the prevalent conditions of many periods of our past history, though the progress of research may succeed, in the course of time, in illuminating much that is now enveloped in deep obscurity. These objections, however, are by no means fatal to the use of the term Indian Economics in the

[1] ' . . . under the present conditions of world-economy, the economic problems of no country can be segregated from those of the rest of the world; most economic questions that we are discussing to-day are of the order of what Germans call *Weltwirtschaft* or world-economics'.—*The Present Position of Economic Studies* (Inaugural Lecture by P. J. Thomas, Madras University).

[2] In attaching this meaning to the term Indian Economics, it does not seem to us that any violence is being done to the English language; and moreover, we have the sanction of a long-established usage to plead in justification of this interpretation. The late Percy Anstey thought that the term Indian Economics was as 'uncouth and infelicitous' as it was 'misleading'. We suspect that this criticism is widely quoted more for its happy arrangement of adjectives than for its inherent justice. As to the term being uncouth and infelicitous, this is purely a matter of taste. As to its being misleading, when we have precisely defined our term, there is no reason why it should mislead anybody.

[3] See V. G. Kalé, *Indian Economics*, fifth edition, vol. I, Introduction.

sense of a History of Indian Economic Thought (though confusion may be easily avoided by making use of the fuller term when this sense is to be conveyed).

3. **A third interpretation.**—We have similarly to concede that, so far as it is merely a question of language, Indian Economics may also quite legitimately mean a novel system of economic doctrines, different as they would be from those current in the west, if it were true that Indian society and conditions are so fundamentally opposed to western society and conditions that the usual basic assumptions of Political Economy are entirely inapplicable in this country.[1] However, as there is no such thing as 'an altogether new science of Economics' created 'out of Indian materials', the term Indian Economics will never actually be required for this particular use. Indian human nature is essentially the same as human nature in the west, and the fundamental presuppositions on which the science of Political Economy is based hold good in India as elsewhere. If in the west the motive of self-interest is considered sufficiently strong and continuous in operation to serve as a basis for the science of Economics, there is no reason why we in India should have to assume that people are normally moved by the altruistic and not the economic motive. Similarly, with regard to the other assumptions, such as that of free competition, mobility of labour and capital, etc., although perhaps they cannot be made with the same confidence with reference to Indian conditions as in the west, they are nevertheless sufficiently valid to make the general principles of economics, as elaborated by western thinkers, of great value in understanding the economic situation in India; and western experience in the domain of practical economics is full of valuable lessons for India to learn.

Since human nature everywhere is the same and the science of Economics is based upon certain universal characteristics of human nature, there can, indeed, be only one Economics, as there is only one Mathematics, one Physics, one Chemistry, etc. If a student, therefore, who is acquainted with western economic theory takes up a book on Indian Economics in the hope of discovering an altogether new set of economic theories he will be disappointed. At the most, he will rise from the perusal of the book with a fuller realization of 'the unity of the substance of Economics under varying forms' (Marshall) and also with his sense of the relativity of economic doctrines wholesomely strengthened.

[1] This certainly was the view of those who first introduced the term Indian Economics: but this does not prove that its present use as explained in the text is unjustifiable.

4. **Indian Economics: a separate subject of study.**—But the admission that there is only one science of Economics does not preclude us from holding that a separate study of the economic conditions in every country is not only justifiable but indispensable. It is quite clear that in the absence of such a study economic policy is likely to be mistaken, and detrimental to the true interests of the country. This is what we mean when we say that Indian Economics must be regarded as a separate subject for study. We must not, however, make the mistake of supposing that the study of economic conditions in India somehow stands on an entirely different footing from a similar study in other countries.

5. **Indian Economics not merely an exposition of economic principles with Indian illustrations.**—Textbooks on Indian economics often treat the different problems under the usual headings of Land, Labour, Capital, Production, Distribution, Exchange, etc. This has the advantage of making the treatment appear systematic and methodical and ensuring the inclusion of all the important topics. Such an order of treatment, however, should not lead us to imagine that Indian Economics is merely an exposition of economic principles with facts of Indian economic life thrown in merely by way of illustrating theory. Economic theory with Indian illustrations would no doubt be more easily assimilated by the Indian student than theory with illustrations drawn from unfamiliar conditions. This, however, has no title to be called Indian Economics, which is a realistic study wholly concerned with the facts and problems of Indian economic life, reference to economic theory proper being relevant only in so far as it helps the understanding of these facts and problems.

Such a separate study with reference to India, we call Indian Economics, as we may well call a similar study of English conditions by the name of English Economics. In England, there may not be a plethora of single or double-volume comprehensive textbooks on English Economics, but the subject is treated in numerous separate treatises dealing with the different aspects of English economic life, such as Banking, Currency, Transport, Agriculture, etc., and we may say with perfect appropriateness that these treatises collectively constitute English Economics.

6. **Ranade's valuable work.**—During the greater part of the nineteenth century, Government policy in this country was unduly doctrinaire and professed to be guided by universal principles of Political Economy as expounded in popular English textbooks, forgetting the hypothetical character of the laws of Political Economy. Because free trade was good for England, it was urged that it must be good for India also. Because *laissez-faire* was on the whole

best suited to English conditions, it was argued that it must be equally beneficial to India, in spite of the fact that in India the spirit of private enterprise was practically non-existent or very feebly developed. The appeal by Government to the conclusions of economic theory was sometimes honest and at other times disingenuous. And in the judgment of many thinking people Government policy in economic matters did not serve the true interests of India. It was attacked by politicians, who roundly accused Government of sacrificing Indian national interests to promote imperial or British interests, and it was also attacked by economists, the foremost among whom was the late Mr. Justice Ranade. Ranade pressed the attack from the economic point of view with his accustomed erudition and in words unmatched, at least by any other Indian writer, in respect of vigour and brilliance. He set himself the task of proving that many of the assumptions at the back of all dogmatical treatment of the subject of Political Economy were inapplicable to India, and that public policy, if it was really to further the economic development of the country, could not afford to ignore the many peculiarities exhibited by Indian conditions. In the following oft-quoted passage he points out what he considers the important distinguishing characteristics alleged to have been disregarded by Government. 'As these assumptions [Ranade is referring to assumptions such as enlightened individualism, free competition, mobility of labour and capital, etc.] do not absolutely hold good of even the most advanced societies, it is obvious that in societies like ours, they are chiefly conspicuous by their absence. With us an average individual man is, to a large extent, the very antipodes of the economical man. The family and the caste are more powerful than the individual in determining his position in life. Self-interest in the shape of the desire of wealth is not absent, but it is not the only nor principal motor. The pursuit of wealth is not the only ideal aimed at. There is neither the desire nor the aptitude for free and unlimited competition except within certain predetermined grooves or groups. Custom and state regulation are far more powerful than competition, and status more decisive in its influence than contract. Neither capital nor labour is mobile, and enterprising and intelligent enough to shift from place to place. Wages and profits are fixed, and not elastic and responsive to change of circumstances. Population follows its own law, being cut down by disease and famine, while production is almost stationary, the bumper harvest of one year being needed to provide against the uncertainties of alternate bad seasons. In a society so constituted, the tendencies assumed as axiomatic, are not only inoperative, but are actually deflected from their proper direction. You might as well

talk of the tendency of mountains to be washed away into the sea, or of the valleys to fill up, or of the sun to get cold, as reasons for our practical conduct within a measurable distance of time.'[1]

7. **Western economic theory and Indian Economics.**—In uttering his energetic protest against the blind imitation in India of the economic policy found suitable in the entirely different environment of nineteenth century England, Ranade did a great service to his country. But, contemplating his words at this distance of time, it must be admitted that he seems to have been partly responsible for giving currency to the notion that western economic theory was utterly useless in interpreting economic phenomena in India and indicating methods of economic progress. So far as Ranade himself was concerned, it may well be urged that an overstatement of the case was necessary for purposes of practical emphasis and effectiveness. Government did in those days profess an exaggerated respect for classical Political Economy, for which they seemed to claim universal authority, and sometimes the only way of correcting exaggeration in one direction is overstatement in the other direction. Ranade wrote at a time when the habit was common of appealing with overmuch confidence to the so-called eternal laws of Economics to settle practical questions, without adequately realizing the necessity of guarding theoretical conclusions by historical and inductive study so as to ascertain the extent of their applicability to a particular human society. Ranade's work in India bears a close resemblance to the parallel achievement in Germany of Friedrich List, who in his *National System of Political Economy* (1842) protested emphatically against the dogmas and the so-called universal truth of classical Political Economy. 'It was particularly against the cosmopolitan principle in the modern economical system that he protested, and against the absolute doctrine of free trade, which was in harmony with that principle. He gave prominence to the national idea, and insisted on the special requirements of each nation according to its circumstances, and especially to the degree of its development.'[2] In fact, Ranade drew his inspiration principally from the writings of List, and in his generation he performed for his country the same kind of valuable service that List did for Germany. However, he set the fashion in this matter, which has continued much beyond its proper time. There is, for example, much less justification for the opinion that is sometimes advanced even to-day that hardly any of the assumptions of Political Economy are applicable to Indian conditions and that 'the

[1] See 'Indian Political Economy' in Ranade, *Essays on Indian Economics*, second edition, pp. 10-11.

[2] Article on F. List in *Encyclopædia Britannica*, eleventh edition.

great hedonistic principle requires not merely tinkering modifications here and there: it ceases to be serviceable altogether in India.'[1] Opinions of this character sometimes lead people to suppose that a special study of Indian economic problems requires an altogether new economic technique, the western technique being pronounced utterly valueless for this purpose.

As a matter of fact, however, in dealing with Indian economic problems we have to invoke the aid of western economic theory at every step. Also, as Professor Brij Narain has pointed out in his *Essays on Indian Economics*, since Ranade wrote, both Political Economy and India have changed their character. Political Economy has learnt properly to emphasize the hypothetical nature of its conclusions and has become chary of claiming universal validity for them.[2] It has also become more human and practical by modifying its assumptions so as to bring them more into accord with actual conditions, and by losing its old-time artificial simplicity it has vastly increased in usefulness. Indian conditions have also undergone a very considerable change during the last forty years and are tending to approximate more and more rapidly to western conditions. We believe that the time has arrived when more is to be gained by stressing the points of similarity between Indian and European economic evolution than harping ceaselessly and unprofitably on the points of difference.

8. **Principal topics of Indian Economics.**—Before concluding this chapter we may briefly indicate the principal topics which our survey of economic conditions in India will cover. At the outset, the two primary factors of production of wealth, namely, India's physical environment and her people, will be dealt with. Next, since the institutional basis of a country affects its economic activity, a discussion of the social and religious institutions of India will follow. As a preliminary to a detailed examination of the main branches of production in India, it will be convenient to mark the actual stage in economic transition reached by India at the present moment. We shall then turn to discuss, more particularly, Indian agriculture and industries. In this connexion, several questions of great importance will have to be treated, such as Irrigation, Uneconomic Holdings, Rural Indebtedness,

[1] See P. Anstey's paper before the Third Indian Economic Conference at Madras.

[2] 'The theory of Economics does not furnish a body of settled conclusions immediately applicable to policy. It is a method rather than a doctrine, an apparatus of the mind, a technique of thinking which helps its possessor to draw correct conclusions.'—J. M. Keynes, General Introduction to the 'Cambridge Economic Handbooks'.

Co-operation, Land Tenures, etc., on the agricultural side; and Foreign Capital, Large-scale and Cottage Industries, Tariffs, Wages, Labour Legislation, etc., on the industrial side. We shall then turn to take stock of the total volume of production in India in order to ascertain the *per capita* income of the people of India. We shall next take up exchange—domestic and foreign—and, as a prelude to this topic, a survey of the transport situation of the country will be attempted. A discussion of the internal and international trade of India will follow and the 'Drain' theory will be tackled in this connexion. The treatment of the mechanism of exchange will necessarily involve an examination of the problems of Currency, Prices, Foreign Exchanges, Banking and Credit. The next important group of subjects will bear on questions of public finance in India, such as the financial relations between the Central and Provincial Governments, the principal sources of their Revenue and Expenditure, the nature of the Tax-system and the Incidence of Taxation, Public Debt, Local Finance, etc. The last chapter of the book will be devoted to the question of unemployment in India—mainly under the headings of Rural Unemployment (Famines), and Middle Class Unemployment.

CHAPTER II

INDIA'S PHYSICAL ENVIRONMENT AND NATURAL RESOURCES

1. **Natural resources and their importance.**—The important rôle played by natural resources in determining the economic life of a nation can hardly be exaggerated. Even in the case of England, as Nicholson observes, 'in spite of the predominance of her trade and her manufactures, natural conditions are of primary importance. The coast-line and rivers, the proximity of rich coal and iron fields, the temperate, moist climate, and the fertility of the soil are still the foundations of the wealth of the nation.'[1] And although with the growth of knowledge and intelligence the mastery of man over nature may increase, there are definite limits to this process and, in the last resort, man must depend upon the materials and powers of nature. We shall, therefore, begin our inquiry into the economic position of India by a brief description of her physical environment.[2]

2. **India: area and population.**—British India is 1,094,300 square miles in area with a population of 271,749,312, while 711,032 square miles of territory with a population of 81,237,564 is under Indian States and Agencies.[3] The length of the country from north to south is about 2,000 miles and about 2,500 miles from east to west. India is thus a world in herself, being fifteen times as large as Great Britain and equal to the whole of Europe excepting Russia. She has a land frontier of about 6,000 miles and the length of her coast-line is roughly 5,000 miles.

3. **Geographical location.**—Geographical location, at all times important, becomes increasingly so in the later stages of economic development. India occupies a highly favourable situation as regards the rest of the world for purposes of international trade. She stands at the very centre of the eastern hemisphere and commands trade routes running in all directions. On account of her extensive seaboard the sea routes are by far the most important, and if she is provided with the requisite maritime equipment, she bids fair to become one of the principal carriers of the world's trade.

[1] *Principles of Political Economy*, vol. I, p. 66.

[2] This description is largely based on Bampfylde Fuller, *The Empire of India*, ch. i, *The Imperial Gazetteer of India*, vol. I, and D. E. Willington, *The Economic Geography of the British Empire*.

[3] According to the Census of 1931 (*India in 1930-31*, p. 146).

4. **Deficiency of harbours.**—One of India's handicaps is the deficiency of natural harbours such as would accommodate modern vessels. The ports on the western coast with the exception of Karachi, Bombay and Mormagoa are practically closed to traffic throughout the monsoon period. The east coast is surf-bound and without any natural harbours. The harbour of Madras, however, has been greatly improved by an expensive outlay on the construction of sea-walls. The extension and improvement of the Vizagapatam harbour being carried out at the present moment may be mentioned as another effort to overcome the difficulties arising from the absence of indentations on the east coast. Calcutta although otherwise admirably situated suffers from the bars which tend to form in the Hooghly, and Chittagong is in a similar case. Rangoon, Moulmein, Bassein and Tavoy besides being distant from the sea are subject to the additional handicap of unsatisfactory communication with the interior. It is, therefore, easily understandable why six-sevenths of India's foreign trade is confined to five ports, namely Calcutta, Bombay, Rangoon, Madras and Karachi, of which Karachi and Bombay are the only natural harbours. The need for a vigorous policy, calculated to increase the number of suitable harbours and involving the construction of new harbours as well as the revival of old neglected ones in order to cater effectively both for the coastal as well as the foreign trade, is clearly indicated in view of the present unsatisfactory position. The shipping position also gives cause for much dissatisfaction as India has hardly any mercantile marine of her own worth the name to justify her old traditions of maritime activity.

5. **Inland communications.**—The principal ports of India are already connected with internal trade centres by a network of railways and roads.[1] The position in regard to internal communications is easier in northern India than in the peninsula. Apart from the possession of navigable rivers, the great plains of northern India lend themselves to easy construction of roads and railways, unlike the peninsula, where the rugged and mountainous nature of the country presents great obstacles which can only be overcome at great expense. The contrast with respect to river navigation between the peninsula and northern India is strikingly in favour of the latter. The whole transport situation is discussed at greater length in volume II.

6. **Attempts to overcome disadvantages of physical location.**—Referring to the possibility of overcoming the disadvantages of physical location, Selingman speaks of a threefold improvement,

[1] For the principal trade centres in India see vol. II, ch. vii.

namely, as regards (i) transportation of men and commodities, (ii) transmission of power, and (iii) communication of ideas. We have just touched upon the first of these topics. The question of transmission of power will receive treatment later on in this chapter. As regards communication of ideas or intelligence, the post, the telegraph, the telephone and the wireless have gone a long way towards reducing the significance of geographical location and have become important adjuncts of modern trade and economic activity. Some of these agencies, like the post and telegraph, are now sufficiently familiar and widespread in India, and have, in conjunction with improvements in transport, transformed in many ways the economic life of the country. The isolation of the village is largely a thing of the past, as is the isolation of the country as a whole from the rest of the world. India is, however, still backward in the use of wireless for the spread of commercial intelligence, while the telephone has as yet scarcely been pressed into service except in the larger towns.

7. **Four well-marked divisions of India.**—India falls into four well-marked divisions: (i) the peninsula of India embracing the country lying south of a line stretching from Karachi to Delhi, and from Delhi to Calcutta; (ii) the Indo-Gangetic plain between the peninsula and the Himalayas forming the most extensive sheet of level cultivation in the world; (iii) the Himalayan range overlooking the Gangetic plain; and (iv) Burma to the east.

8. **The peninsula.**—This is an elevated plateau separated from the Indo-Gangetic plain by the Vindhya and Satpura ranges, a line of low hills and scarps. It is flanked by coast ranges known as the Western and Eastern Ghats, of which the Western Ghats are much the more considerable and form a gigantic and continuous sea-wall, pierced by no valleys of any size and unbroken except for a very curious gap two hundred miles from its southern extremity. The Eastern Ghats are much less formidable and are interrupted by broad valleys which lead to the drainage of the peninsula into the Bay of Bengal by rivers like the Mahanadi, the Godavari, the Kistna and the Cauvery. There is only a narrow strip of land between the Western Ghats and the sea on the ocean side of the Bombay Presidency, a fact which makes penetration inland on this side from the sea difficult, and even the monsoon clouds are compelled to deposit their moisture on the mountainous barrier, making the inland region peculiarly liable to droughts and famine. There is, however, considerable space between the Eastern Ghats and the coast. With the lower sea-walls of the Eastern Ghats the monsoon can sweep inland more easily and consequently the eastern parts of the peninsula, enriched by its rivers providing much low-lying

fertile soil, support a dense population and are comparable in this respect to the plains of the north.

The surface of the peninsula is generally uneven and rocky with more or less forest-clad hill-peaks and ranges and it affords many contrasts in vegetation and scenery. In the east, the low hills look down upon stretches of rice land; to the west, as the land rises—for the peninsula tilts like the roof of a house from west to east—and the regions of comparatively scanty rainfall are reached, rice gives place to millet and cotton grown on broad treeless tablelands.

9. **The Indo-Gangetic plain.**—This is entirely composed of rivers and silt and is traversed by two great river systems tending in two directions. The five western rivers which give the Punjab its name, flow down the lower reaches of the Indus into the Arabian Sea. Seven other large rivers to the east, including the Ganges and the Jumna, similarly unite in the Ganges to reach the Bay of Bengal. Approaching the sea, their waters are mingled with those of the Brahmaputra which flows from the east down the valley of Assam. The silt borne by the waters of these rivers is gradually enlarging an extensive delta at the head of the Bay of Bengal upon which is situated the city of Calcutta.

10. **Himalayan and peninsular rivers.**—The Himalayan rivers are as a rule perennial, as they receive a plentiful supply of water even in summer from the melting of the Himalayan snow. Flowing through broad basins, they form large tracts of rich alluvial soil on either side. It is no wonder therefore, that their fertile basins have been the seats of the ancient Aryan civilization and even to-day play the rôle of the natural granaries of the country. Some of them, like the Irrawaddy, the Ganges and the Indus, are navigable and served as great carriers of commerce in the pre-railway days. They are also the feeders of those important productive irrigation works on which the prosperity of the Punjab, Sind and the United Provinces so largely rests. The peninsular rivers, on the other hand, while they flow in torrents during the monsoon, shrivel up into mere puddles during the hot weather. Many of them cut their way through deep gorges making navigation impossible. A different and more costly system of irrigation works, necessitating the construction of huge reservoirs in their valleys to store up the rain water, has had to be devised to overcome the periodical deficiency of water from which they suffer.

11. **The Himalayas.**—The Indo-Gangetic plain is dominated by the Himalayas, some of whose peaks rise to a height of 30,000 feet. The Himalayas account for 1,250 miles out of the total length of over 2,000 miles of the great mountain ranges which cut India off from the rest of Asia. It is the melting of the snow of the

Himalayas which contributes the necessary water supply to the great rivers that irrigate the plains of northern India. At either end of the Himalayas there is an abrupt change in the trend of the mountains. They run north and south instead of east and west, and form, with the Himalayan chain, a three-sided barrier shutting in the plain of India from Afghanistan and Baluchistan. Apart from their political significance as an impregnable barrier, the Himalayas exercise a dominating influence on economic conditions by their effect on rain, winds, heat, cold, moisture and vegetation.

12. **Burma.**—Lastly, Burma in the east is really part of a separate peninsula and presents many marked contrasts with India proper, from which till recently it was politically isolated. The fertile valley of the Irrawaddy is the principal home of the Burmese people who, while connected by racial affinity with the wild tribes of the hills surrounding them, have evolved a high type of civilization, though as regards general outlook and social organization it differs from the civilization of the Hindus. Burma has vast natural resources in forest and mineral wealth still awaiting economic exploitation.

13. **Physical and climatic contrasts.**—The physical and climatic contrasts between one part and another are very great in India. 'In the north rise magnificent mountain altitudes bound by snow-field and glacier in eternal solitude. At their feet lie smooth wide spaces of depressed river basins either sandy, dry and sun-scorched, or cultivated and waterlogged under a steamy moisture-laden atmosphere. To the south spreads a great central plateau, where indigenous forest still hides the scattered clans of aboriginal tribes; flanked on the west by the broken crags and castellated outlines of the ridges overlooking the Indian Ocean, and on the south by gentle, smooth, rounded slopes of green uplands.'[1] 'To one, for instance, who has gained his knowledge of India in lower Bengal, India is a country of almost constant heat and damp, luxuriant vegetation, rivers, tanks, rice fields, and coconuts, with few cities, and densely inhabited by a mild and timid population.' Transfer the scene to Agra or Lahore, and 'instead of one of the dampest and greenest countries of the earth we find in the early summer one of the brownest and most arid—a country scorched with winds like the blast of a furnace, with a cold and bracing winter climate; instead of the tropical vegetation of Bengal we find thousands of square miles covered with wheat and barley and the products of temperate zone.'[2] It is a country with famous cities and splendid monuments containing a strong and virile population.

[1] *Imperial Gazetteer*, vol. I, p. 1.

[2] Sir J. Strachey, *India, its Administration and Progress*, fourth edition, pp. 3-4.

Meteorologically, India presents a greater variety of conditions than probably any other part of the world, combining tropical and temperate region conditions in a most remarkable manner. 'It is influenced from outside by two adjoining areas. On the north, the Himalayan range and the plateau of Afghanistan shut it off from the climate of central Asia, and give it a continental climate, the characteristics of which are the prevalence of land winds, great dryness of the air, large diurnal range of temperature, and little or no precipitation. On the south, the ocean gives it an oceanic climate, the chief features of which are great uniformity of temperature, small diurnal range of temperature, great dampness of the air, and more or less frequent rain. . . . In the cold season the mean temperature averages about thirty degrees lower in the Punjab than in southern India. In the Punjab, the United Provinces and northern India generally the climate resembles that of the Riviera with a brilliant cloudless sky and cool dry weather; . . . . In south India it is warmer on the west coast than on the east, and the maximum temperature is found round the head-waters of the Kistna. Calcutta, Bombay and Madras all possess the equable climate that is induced by the proximity to the sea, but Calcutta enjoys a cold season which is not to be found in the other presidency towns, while the hot season is more unendurable there.'

14. **Seasons in India.**—'The hot season begins officially in the Punjab on 15 March and from that date there is a steady rise in the temperature, induced by the fiery rays of the sun upon the baking earth, until the break of the rains in June. During this season the interior of the peninsula and northern India is greatly heated; and the contrast of temperature is not between northern and southern India, but between the interior of India and the coast districts and the adjacent areas. The greater part of the Deccan and the Central Provinces are included within the hottest area, though in May the highest temperatures are found in upper Sind, north-west Rajputana, and south-west Punjab. At Jacobabad, the thermometer sometimes rises to 125° in the shade.' Where the seasons are clearly defined in India they are three in number: (i) a cool dry season (winter), when northerly trade winds prevail and when there is little or no rainfall except in the northern provinces where moderate cyclonic storms occasionally occur; (ii) a wet season, sultry and oppressive with the inflowing south-west monsoon of summer; and (iii) a hot dry season before the beginning of the rains which usually come suddenly with heavy thunderstorms.

15. **Rainfall.**—The normal annual rainfall varies from something like 460 inches at Cherrapunji in the Assam hills to less than three inches in upper Sind. Climatically the Indian peninsula is

part of the great monsoon area of Asia, and exhibits the monsoonal control in a more perfect form than any other part of this area. The term monsoon technically applies to the reversal of winds which takes place throughout the monsoon area and which divides the climatic year into two distinct periods, that of the south-west monsoon, and that of the north-east monsoon. The south-west monsoon is really an extension of the south-east trade winds which cross the equator and are then deflected to the right, becoming south-west winds. By July the system is fully established over India, the winds being generally south-west over the Deccan, south over the Ganges delta, and south-east up the Ganges valley. The Indus basin is the last area reached by these winds, and the first from which they retreat, so that here the yearly rainfall is very low. It is heaviest on the Western Ghats, the Himalayas, and in Burma, where it is accentuated by the relief of the land. In September the force of the monsoon begins rapidly to decline, and after about the middle of the month it ceases to carry rain to the greater part of north-western India. In its rear springs up a gentle, steady north-east wind, which gradually extends over the Bay of Bengal and is known as the north-east monsoon. The rainfall of India has a definite periodicity due to this monsoonal control and for this reason the climatic year may be divided as follows:—(*a*) Season of the south-west monsoon: (i) middle of June to the middle of September—season of general rains; (ii) middle of September to the middle of December—season of retreating monsoon. (*b*) Season of north-east monsoon: (i) January and February—cold weather season; (ii) March to middle of June—hot weather season. One set of crops is sown in June and reaped in autumn, namely rice, cotton, bajra, etc. This is called the kharif crop. The second set of crops is sown when the monsoon ends, that is about the middle of September, namely wheat, barley, linseed, etc., and is reaped between January and March. This is called the rabi crop.

16. **Vital importance of rainfall.**—This is only a general description of the climatic and agricultural regime throughout India, subject to qualifications when applied to any particular part of the country, but it serves to bring out the importance to the country, as a whole, of the seasonal rainfall, fluctuations in which as regards quantity, distribution and timeliness bring misery or prosperity to millions of the people.[1] Perhaps in no other region of the world does the rainfall enter so much into every aspect of life as in India.

[1] 'For several months in every year, India is on trial for her life, and she seldom escapes without a penalty.'—L. C. A. Knowles, *The Economic Development of the British Overseas Empire, 1763-1914*, p. 278.

Life here is primarily based on agriculture, which is dependent for its very existence on the rainfall, in its turn almost wholly dependent on the south-west monsoon, which accounts for nearly ninety per cent of the total rainfall. The south-west monsoon is from this point of view far more important than the north-east monsoon and may be described as the pivot upon which the whole of Indian life swings.

The peculiarity about the Indian rainfall is its marked discontinuity. In England, for instance, rain may be expected at any time of the year. In India it is confined to certain definite seasons. Much of the rain is also received in heavy falls and runs off the soil without soaking into it. This causes a shortage of soil moisture, soil erosion and waterlogging.

The lack of uniformity from place to place as regards the amount of annual precipitation has been made the basis of the following classification: (i) areas of almost unfailing rainfall, including Burma, Assam, eastern and lower Bengal, and the coast strip between the Western Ghats and the Arabian Sea, from the extreme south of the peninsula to the southern boundary of Surat district; (ii) areas of precarious rainfall varying from ten to thirty inches, for instance, Udaipur, Ajmir and Bombay Deccan excluding the Western Ghats; (iii) areas of drought where cultivation without irrigation is exceedingly precarious and in some cases impossible, such as upper Sind, western Rajputana, western Punjab, etc.

17. **Climate.**—It is impossible to make any general statement about the climate of India because, as we have seen, within its boundaries almost any extreme of climate that is known to the tropics or the temperate zone may be found. On the whole, however, the Indian climate may be described as semi-tropical; its effect on the human frame is depressing in contrast with the bracing effect of the climate of the temperate zones, and leads to a relatively low tone of health and physique of the population of the country. A more favourable climate is at least one of the causes of the superior efficiency of European as compared with Indian labour. The influence of climate in this connexion, although it must not be exaggerated, must none the less be recognized.

18. **Tropical climate in relation to economic progress.**—It is commonly urged that in the tropics nature yields the means of livelihood with comparatively little effort on the part of man (whose needs, moreover, are much more modest in the tropics than in the temperate regions) and makes him disinclined to constant struggle and forethought and to the vigorous employment of all his faculties. In the temperate regions, on the other hand, a more economical nature yields nothing except in response to hard labour.

Work being a universal necessity, labour becomes dignified, well-paid, intelligent and independent. As the winter is cold and stormy, it necessitates forethought in the preparation of clothing, food and shelter during the summer. Carefully planned, steady, hard work is the price of living in these zones and this encourages the development of a high type of civilization.

Professor Carr-Saunders, however, has recently combated the view that when nature yields her gifts too easily economic progress and civilization lag behind. He holds on the contrary that 'it is in those regions where there is the greatest abundance in quality and quantity of useful objects that there will be the greatest chance of their usefulness being observed and that there will be derived the highest return per head from any improvements in skill. The greater the fertility, therefore, the greater the incentive to skill.'[1] However that may be, neither the tropical climate nor the fertility of India have prevented the rise of a glorious civilization there in the past. For the backwardness of the Indian people and the spirit of apathy and listlessness which characterize them to-day we must seek other causes than the climate of the country or the excessive bountifulness of nature.

19. **Forests.**—Among the most valuable natural resources of India must be reckoned her magnificent forests. The character of the forest in the country is largely governed by rainfall and elevation. Where the rainfall is heavy, evergreen forests of palm, ferns, bamboos, and india-rubber trees, etc. are found. Under a less copious rainfall deciduous forests appear containing teak, *sal*, and a great variety of other valuable trees. Under a still smaller rainfall the vegetation becomes sparse containing acacias, *tamari*, etc. In the Himalayas, sub-tropical to arctic conditions are found and the forests contain, according to elevation, pines, firs, deodars, oaks, chestnuts, magnolias, bamboos, etc. It has been the experience of all countries, that the natural process of growth and reproduction by which forests are kept alive are incapable of keeping pace with man's destructiveness, and the State has generally found it necessary to take special measures in the ultimate interests of the country to preserve its forests from reckless destruction. Although the question whether forests are required to be maintained in a particular country and if so, to what extent, depends on certain special conditions, such as the position of the country, its communications, the possibilities of using land otherwise than for growing forests, the density of population, the amount of capital available for investment, etc., there is nevertheless

[1] A. M. Carr-Saunders, *The Population Problem*, p. 422.

a consensus of opinion that the forests of India are a valuable national asset, and their proper conservation constitutes one of the most important economic functions of the Indian Government.

20. **Utility of forests.**—In the economy of man and of nature forests are of direct and indirect value. Among the indirect uses of forests are the following: (i) forests render the climate more equable, increase the relative humidity of the air, reduce evaporation and tend to increase the precipitation of moisture; (ii) they help to regulate the water supply, produce a more sustained feeding of springs, tend to reduce violent floods, and render the flow of water in rivers more continuous; (iii) they increase the fertility of the soil, as they help to form rich vegetable mould even from mineral soils; (iv) they reduce the velocity of air currents, protect adjoining fields against cold or dry winds, and afford shelter to cattle, game, and useful birds; (v) under certain conditions they may improve the healthiness of a country and render assistance in its defence; (vi) they increase the beauty of the country and produce a healthy aesthetic influence upon the people.

The direct utility of forests is chiefly due to their produce, such as timber and firewood, and the raw material they afford various industries. Another important use, especially in India, is the grazing for cattle which they provide. This is, however, liable to interfere seriously with the preservation of the forests. To meet both requirements, the method adopted in India is to close entirely to grazing part of the forest area, to close another part only against the grazing of certain animals, like goats, sheep and camels, and to leave a large area open to the grazing of all kinds of cattle. The areas closed in ordinary years constitute reserves of fodder for years of scarcity and famine, when they are either opened to grazing or grass is cut in them and sent to districts where it is badly wanted. The complaint, however, is often heard that forest administration in India is less sympathetic to the needs of the agricultural population than it might be, consistently with a proper discharge of its duty of forest conservation and development. A closer co-ordination between the Forest Department and those departments like the Agricultural and Co-operative, which concern themselves directly with the question of promoting the welfare of the agriculturist, is desirable in order to reconcile the two conflicting points of view. Although the principal function of forestry is the preservation and development of forests, we must never lose sight of the fact that it has also an important vocation as the handmaid of agriculture. Because forests can supply many of the needs of the peasant, such as firewood to replace manure used as fuel, small

timber for houses and wood for implements, as well as grazing and fodder for the cattle—concessions to which the Indian farmer has been accustomed for long centuries, and the sudden curtailment of which is resented by him as arbitrary and unduly harsh.

The following are some of the recommendations made by the Agricultural Commission with a view to increasing the utility of forests to the agriculturist and enabling him to take an enlightened view of forest administration:—(i) Appointment in each province of a forest utilization officer, whose main function should be to develop forest industries—a matter of great importance to agriculturists, especially to those who live in the neighbourhood of forests. (ii) A reclassification of forest areas into a major division in charge of commercial forests and those necessary on physical and climatic grounds; and a minor division in charge of minor forests, fuel plantations, village woodlands and waste lands; and the transfer of more or less wooded areas now under the control of the Forest Department to village management through popularly elected committees or panchayats on the lines adopted by the Madras Government. (iii) Institution of short courses at the agricultural colleges for all newly recruited forest officers to foster a closer touch between the Agricultural and Forest Departments.[1]

21. **Forest conservation.**—The process of reckless destruction of forests had gone on for centuries in India even before the advent of British rule. In the early years of the British rule this destruction became intensified owing to various factors, such as increase of population, multiplication of herds of cattle, extension of cultivation and the demand for timber and firewood on the part of railways. Government eventually became alive to the necessity of putting a stop to this process of reckless deforestation and the first organized steps to protect the forests were taken during Lord Dalhousie's regime, about the year 1855. At that time Conservators of Forests existed in Bombay, Madras and Burma. Soon afterwards other appointments followed, and in 1864 an organized State department under an Inspector-General of Forests was established. Since then the Indian Forest Department has grown and now controls more than one-fifth of the total area of British India. In 1894, the Government of India issued an import circular which forms the basis of Government policy with regard to forests. It classified forests under four heads; forests the preservation of which is essential on climatic or physical grounds; forests which afford a supply of valuable timbers for commercial purposes; minor forests which include tracts which, though true forests, produce only the

[1] *Report of the Royal Commission on Agriculture* (1928), pars. 229-33.

inferior sorts of timber or smaller growths of the better sorts; and pastures and grazing ground proper, which are usually forests only in name.[1]

22. **Area under forest in India.**—Of the whole area of the provinces,[2] a total of 1,103,491 square miles, the forest area accounted for 249,154 square miles in 1929-30 or 22·6 per cent of the total. Of the forest area, 107,353 square miles were Reserved Forests, 6,298 square miles Protected Forests, and 135,503 square miles Unclassed State Forests.[3] Forests are classified as Reserved, Protected and Unclassed State Forests in descending order as regards the control exercised by Government in respect of rights of user, of individuals and the public. The relative importance of the forest areas in different provinces in 1929-30 can be seen from the following table which clearly brings out the fact that Burma and Assam are the leading major provinces in this respect.

Province	Proportion of forest to whole area of province	Province	Proportion of forest to whole area of province
Madras	13·4	C. P. and Berar ...	19·6
Bombay ...	12·1	Assam	37·7
Bengal	13·8	N.-W. F. Province	1·8
United Provinces ...	4·8	Brit. Baluchistan ...	1·4
Punjab	5·5	Ajmer-Merwara ...	5·1
Burma	60·2	Coorg	32·8
Bihar and Orissa ...	3·6	Andamans and Nicobars ...	69·6

The great forest lands of India are located for the most part in the hills, but there are forests and woods in the plains interspersed with cultivation. As the above table shows, the inter-provincial distribution of the forest area is markedly irregular. Moreover, much of the area consists of waste ground, often entirely devoid of trees. These two features increase the difficulties of supplying all the needs of the agricultural community.

23. **The object of forest administration.**—The object of forest administration is to eliminate the danger of overworking the forests

[1] See *Agricultural Commission Report*, par. 215.

[2] Excludes Delhi Province and the British Pargana of Manpur (Central India).

[3] Unclassed State Forests or 'Public Forest Lands' include in many provinces all unoccupied waste, often entirely treeless, land. So the above statistics do not necessarily represent the wooded area.

and at the same time to improve their yielding capacity, and on the whole Government have succeeded remarkably well in fulfilling both these objects. For the first fifty years of the existence of the Forest Department in India, the potential value of research into forest economics was not recognized by any special steps being taken by Government for the promotion of research. A Forest Research Institute was, however, established in 1906 at Dehra Dun and has been recently enlarged considerably in accordance with the recommendations of the Indian Industrial Commission of 1918. As a result of this, many valuable investigations have been undertaken and steady progress is being registered in scientific and practical knowledge which should ultimately lead to the fuller and better utilization of the raw products yielded by Indian forests.[1] The average out-turn of timber and fuel from the forests in 1929-30 was 350,067,089 cubic feet, and the net profit to Government was Rs. 265 lakhs. The Burma forests are the largest and most important of the Indian forests and yield a gross revenue of over two crores of rupees per annum from the output of teak.

24. **Indian forests as suppliers of raw materials.**—The Indian forests also play an important role as suppliers of the necessary raw materials for various industries and as providers of employment for large numbers of people. There is, for example, a considerable jungle population deriving sustenance directly from the products of the forests. Then there are large numbers of wood-cutters, sawyers, carters, carriers, raftsmen, etc., working in and near the forests. Lastly, there are those engaged in working up the raw products of the forests, for instance, carpenters, wheel-wrights, boat-builders, rope-makers, tanners, lac manufacturers, etc.

25. **Major and minor forest produce.**—Forest produce is divided into two main heads: (i) major produce, i.e. timber and firewood; and (ii) minor produce, which comprises all other products such as lac, tanning materials, essential oils, turpentine and resin. The minor products from Indian forests are increasing in importance and many of them have already established themselves in the markets of the world. One of the important results of research has been to prove that bamboos can be utilized for the manufacture of paper pulp, in addition to grasses like sabai and bhabar which have already been in use, for example, in the Calcutta paper mills. With our extensive forest areas, of bamboo and savanna we may hope ultimately to produce within the country itself all the paper we

[1] For more details regarding the activities of the Forest Research Institute see *India* (1927-8), pp. 121-4, and *India* (1929-30), pp. 154-5.

require. Having regard to these possibilities Government have recently granted protection to the Indian bamboo paper pulp industry as recommended by the Tariff Board. As already noted above, the Agricultural Commission recommend the appointment in every province of a forest utilization officer in order that the development of forest industries may be made the definite responsibility of an officer.[1]

26. **Potentialities of Indian forests.**—During the War India had to depend on her own resources for supplying the needs of the British armies engaged in Mesopotamia, etc., and the special effort put forth for fulfilling this function on an adequate scale brought out, in a striking manner, the great latent possibilities of Indian forests and may be said to have opened a new era in forest exploitation, and a steady and extensive development of industries dependent on the forests may be confidently anticipated in the near future.[2]

27. **Geological composition.**—The geological survey of a country includes the consideration of its surface soil and sub-soil. We shall first deal with the surface soil of India, indicating the broader differences characterizing the chief kinds obtained from the three principal geological formations. (i) The alluvial tracts are the most extensive and agriculturally the most important. They occupy the greater portion of Sind, Gujarat, Rajputana, the Punjab, the United Provinces, Bengal; and the Godavari, Kistna and Tanjore districts of Madras. An alluvial strip of varying width extends along the eastern and western coasts of the peninsula, widening at the deltas of the great rivers of peninsular India in many places. With moderate and well-distributed rainfall the alluvial soils especially those of the Indo-Gangetic plains, which are for the most part porous in texture, easily ploughed and naturally endowed with a sufficiency of chemical and organic ingredients, are capable of growing most of the kharif and rabi crops. (ii) The Deccan trap formation covers the greater part of the Bombay Presidency, the whole of Berar, the western third of the Central Provinces and the western part of Hyderabad (Deccan). The soils throughout this area vary greatly in character and fertility. True black cotton soil occurs within the area of the Deccan trap in undulating or sloping situations, below the general level of the foot-hills. It varies in depth according to position, and where very deep, has been accumulated by

[1] *Agricultural Commission Report*, par. 224.

[2] Compare (i) *Encyclopædia Britannica*, article on Forests and Forestry; (ii) *The Indian Year Book;* (iii) *Industrial Commission Report*, pars. 61-8; and (iv) *Work of the Forest Department in India*, edited by R. S. Troup (1917), pp. 5-6.

alluvial deposits, and owing to its dense consistence in places like the valleys of the Tapti, Narmada, etc. becomes unworkable during heavy rain and is better adapted for rabi crops of wheat, linseed and gram. The black cotton soil of the Deccan trap area, which grows cotton and jowar as staple crops in the kharif season, is as a rule only three or four feet deep and is mixed with limestone and small fragments of disintegrated trap. The sub-soil contains a good deal of lime and being shaly allows free drainage to the trap rock below. (iii) The remaining soils belong to what is known as the crystalline tract, comprising almost the whole of Madras, Mysore, the south-east portion of Bombay, the eastern half of Hyderabad and two-thirds of the Central Provinces. Though on the whole deficient in chemical constituents and producing the poorest crops, certain varieties, for instance, the red or the red-brown loams and clay loams in Mysore and Madras, are very fertile. Soils of the medium fertility are also found in considerable variety, and those of fair or good depth can be irrigated with advantage and made to yield rice as the chief crop, where canal irrigation is available, and other valuable crops with the help of tank and well irrigation. The reddish-brown or yellow-red soils of this formation found in Belgaum, Dharwar, etc. are specially suitable for the growth of fruit trees, particularly mangoes.

28. **Mineral production.**—In the opinion of the Industrial Commission (1918) the mineral deposits of India are sufficient to maintain most of the 'key' industries except those that require vanadium, nickel and possibly molybdenum. The belief was, however, current for a long time that these deposits were as a rule too poor to be worked profitably on the modern scale. Up to the early eighties, practically nothing had been done in the experimental development of Indian minerals and therefore it was not possible to form any reliable judgment regarding the mineral potentialities of India. Subsequent investigations, however, have led to the discovery and opening up of many kinds of mineral deposits, and we can now assert with some confidence that, although India's mineral resources cannot be spoken of as unlimited or unparalleled, they are by no means negligible and can supply the basis for the development of a number of metallurgical industries in the country. With the expansion of the modern transport system, the development of banking, and the growing industrialization of the country they are being more and more fully developed. The War gave a stimulus to the production of several minerals, and though the advance then made has not been fully maintained, lasting benefit has accrued and the position of mineral production still remains distinctly more favourable than before the War.

The following table[1] gives an idea regarding the quantity and value of the chief minerals produced in India, including Indian States, in 1914 and 1929:—

Name of mineral	1914		1929	
	Quantity	Value (Rs.)	Quantity	Value (Rs.)
Coal (tons)	16,464,263	5,86,10,695	23,418,734	8,93,59,124
Salt ,, ...	1,348,225	72,49,347	1,709,100	1,13,14,965
Gold (oz.)	607,388	3,50,75,330	363,869	2,06,64,268
Petroleum (gallons) ...	259,342,710	2,41,05,892	306,148,093	6,43,26,009
Saltpetre (cwts.) ...	316,211	42,01,476	91,708	9,61,051[2]
Chromite (tons) ...	5,888	39,160	49,565	8,41,769
Copper Ore ,, ...	5,324	1,09,410	88,169	64,79,290
Diamonds (carats) ...	55	11,867	1,628	52,045
Iron Ore (tons) ...	441,574	5,44,740	2,428,555	64,91,236
Jade Stone (cwts.)[3] ...	4,971	10,05,771	2,226	4,86,156
Lead (tons) ...	10,548	30,34,185	80,233	2,50,00,613
Magnesite (tons) ...	1,680	8,353	23,497	1,29,167
Manganese Ore (tons) ...	682,898	1,31,58,965	994,279	2,10,51,802
Mica (cwts.)	40,506	13,21,351	53,231	26,59,759
Monazite (tons) ...	1,186	6,21,165	180	24,120
Platinum (oz.) ...	37	3,195	...	...
Rubies, Burma (carats) ...	304,872	6,46,988	43,650	1,81,760
Silver (oz.)	236,446	4,03,460	7,298,327	1,07,56,637
Tin Ore (cwts.) ...	5,395	3,29,274	75,690	59,97,401
Wolfram (Tungsten Ore) (tons)	2,326	26,78,152	1,348	15,16,795
Zinc Ore (tons) ...	8,553	1,61,430	1,473	1,44,787[4]

We shall now proceed to take a brief survey of some of the most important minerals exploited on a commercial basis in India.[5]

29. **Coal.**—The coal industry in India owes its origin to the construction of railways in the country, which at once created a large demand and also led to the opening up of India's coal-fields during the second half of the last century. The search by the East Indian Railway Company for a cheaper and more accessible supply than the imported British coal led to the development of the Indian coal industry by a number of joint-stock companies, mostly European-owned and managed, formed for the purpose. Between

[1] Compiled from *Statistical Abstracts for British India* for 1914-5 and 1929-30.

[2] Export figures (nearly the whole of the output).

[3] Export by sea and land.

[4] Exports by sea of 'zinc of all sorts'.

[5] The following main sources have been consulted in preparing the sections on minerals:—Cotton, *Handbook of Commercial Information for India*, second edition; J. C. Brown, *India's Mineral Wealth* (India of To-day Series); *Quinquennial Review of Mineral Production in India* (1919-23); *Annual Report of the Chief Inspector of Mines in India* (1929); *Statistical Abstracts for British India*; and *The Indian Year Book* (1932).

1884 and 1901 the production of coal rose from 1·3 million tons to 6·6 millions.[1] In addition to obtaining a practical monopoly in Bengal, Indian coal found its way into certain eastern markets such as Colombo, British Malaya and the East Indies. With the increase in internal consumption the production advanced to an annual average of 14·7 million tons in the five years preceding the War. During the same period, the average imports (mostly of British coal) amounted to 455,000 tons and average exports to 825,000 tons. With the exception of the United Kingdom, India produces more coal than any other part of the British Empire. Most of the coal raised in India comes from Bengal and Bihar and Orissa (the Gondwana coal-fields). Outside these provinces the most important mines are Singareni and Sasti in Hyderabad State, in the Central Provinces, Burma, Assam, Punjab and Baluchistan. Rajputana, Bikaner and Central India also contribute a small amount to the total coal supplies of India. Indian coal is thus very unevenly distributed, the deficiency being especially marked in the case of the peninsula. The absence of coal supplies in Madras, coupled with the high cost of railway transport, acts as a great handicap to the successful exploitation of the iron ores of the Presidency. Even in Bombay a similar difficulty arising from a lack of local supplies of coal has had to be overcome partially by the use of hydro-electric power and the import of South African coal. Another defect is that Indian coal lies in the fact that it is generally poorer in quality than foreign coal. Only the Bengal coal can compare with foreign coal as regards the production of good metallurgical coke.

The War and early post-War years, especially the period 1917-21, witnessed a remarkable expansion of the industry. The cutting off of British supplies consequent on shortage of tonnage, the rise in coal prices, the demand for coal from Government up to April 1920 and the increase in internal consumption during the post-War industrial boom period were some of the factors that stimulated the growth of the industry, the only limiting factors being the shortage of wagons for carrying coal and supply of labour for mining it.[2] In the meanwhile, the South African exports of coal to eastern markets including India were making rapid strides, thanks to the substantial help given by the South African Government, the cutting off of British imports and the embargo on the export of coal from India between 1920 and 1923, which was imposed in view of the internal scarcity of coal and the congestion

[1] Vera Anstey, *The Trade of the Indian Ocean*, pp. 197-8.

[2] See *Report of the Tariff Board* (Coal Industry), 1926, par. 11.

on the railways. Even when these difficulties ceased to operate, Indian coal was not able to regain more than a portion of its former sales abroad, while it experienced increasing competition in the home market. However, during the last few years, the balance of South African trade having changed and freightage at ballast rates being no longer easily available for coal, South African coal is gradually losing its former advantage in eastern markets.[1] The changes in the import and export trade in coal are illustrated by the following table:—

	Pre-War average	War average	Post-War average	1926-7	1930-31
Imports					
Quantity (in 1,000 tons) ...	455	133	630	155	179
Value (in 1,000 rupees) ...	80,89	30,41	2,25,39	35,69	34,69
Exports					
Quantity (in 1,000 tons) ...	825	526	434	645	430
Value (in 1,000 rupees) ...	75,77	48,46	57,24	81,33	49,35[2]

The progress made by the coal industry during the War and post-War period may be gauged from the fact that, while in 1914 the total production of coal in India was 16,464,263 tons valued at Rs. 5,86,10,695, it increased to 23,803,048 tons valued at Rs. 9,26,25,323 in 1930. In the latter year Bihar and Orissa contributed 15,064,425 tons and Bengal 6,316,528 tons. The net internal consumption of coal was estimated by the Tariff Board at 18·4 million tons in 1925, and the percentage share of Indian coal in supplying the internal demand at 97·5. The increase in internal consumption from 9·8 million tons in 1910 to 18·4 millions in 1925 has been the result of increased demand from railways—the largest individual consumers of coal, from the expanding iron and steel industry and from other industries. Though the supply of electric power and the use of oil fuel are increasing in India, coal still holds its own and might even be considerably more widely used in the future. For, as will be seen from the figures in respect of exports and imports and of internal consumption, the principal

[1] Anstey, op. cit., p. 55.

[2] The decline in exports must be regarded as a reflection of the bad trade conditions.

support of the industry is the growing market for coal in the country itself.

The imports of South African coal have been the cause of a good deal of discontent, and in March 1924 the Legislative Assembly passed a resolution recommending the imposition of a countervailing duty on South African coal. As an outcome of this, the Indian Coal Committee was appointed in order to investigate the technical aspect of the matter before referring the question of protecting Indian coal from foreign competition to the Tariff Board.[1] This Committee made various recommendations with a view to strengthening the position of the Indian coal industry and more especially to stimulating the export of Indian coal from Calcutta to Indian and foreign ports. They found that the paramount considerations were those of quality and price. In order to secure the former, they recommended the establishment of a Coal Grading Board whose certificates would be accepted as a guarantee of the quality of the coal to which they related. This recommendation was accepted by Government. The necessary legislation was passed in the shape of the Coal Grading Board Act, 1925, and the Board was formally constituted on 20 January 1926. The Committee also recommended that the freight on certified export coal from the mines to Calcutta should be reduced by the grant of an increased rebate of thirty-seven and a half per cent on railway charges and a reduction of four annas per ton on the river dues. These recommendations have been accepted by the railway companies concerned and the Port Trust authorities.

30. **Iron.**—The knowledge of iron metallurgy is of high antiquity and before the competition of the imports of the metal from Europe the indigenous iron industry was in a flourishing condition and was carried on in all parts of the country.

The introduction of modern processes of iron manufacture on a large scale may be said to date from 1874, when the Barakar Iron Works started operations. These works later became the Bengal Iron and Steel Company, the forerunner of the present Bengal Iron Company. The Tata Iron and Steel Company was inaugurated at Sakchi in Bihar and Orissa in 1911. The manufacture and rolling of Indian steel was successfully established about the end of 1913, being facilitated by the proximity of coal-fields and iron deposits in Bihar and Orissa. The proper place for the discussion of the further developments of the iron and steel industry will be in our chapter on Indian Industries.

[1] The question of grant of protection to the coal industry is discussed in vol. II, ch. iii.

The progress made in the production of iron ore in India is brought out by the following figures:—

1914		1921		1929		1930[1]	
Quantity (tons)	Value (Rs.)	Quantity (tons)	Value (Rs.)	Quantity (tons)	Value (Rs.)	Quantity (tons)	Value (Rs.)
441,574	5,44,740	942,084	21,08,329	2,428,555	64,91,236	1,849,625	48,72,527

By far the most important of the iron deposits are those that occur in Singhbhum and the Keonjhar, Bonai and Mayurbhanj States of Orissa, where recent 'discoveries include what appears to be a range of iron ore running almost continuously for forty miles'. It is said that at one place a ravine cutting across the iron ore range shows a continuous thickness of 700 feet of high-grade haematite containing over sixty per cent of iron and estimated to contain no less than 2,800,000,000 tons of ore. As we see our way in the course of time to exploit such deposits of iron, India's dependence on foreign supplies of iron must eventually come to an end.

31. **Manganese.**—This is a very valuable industrial mineral. It has been asserted that at least ninety per cent of the world's output of manganese ore is required for the Bessemer and open-hearth processes for the manufacture of steel. It is also used in the heavy chemical, electrical and glass industries.

The manganese industry in India dates from 1892 when quarrying began in Vizagapatam in the Madras Presidency. In 1900-1, 90,000 tons were shipped, but since then the Central Provinces have come to obtain the pride of place as the largest producers of manganese. The total output in India in 1929 was 9,94,279 tons valued at Rs. 2,10,51,802 as compared with 682,898 tons valued at Rs. 1,31,58,965 in 1914-5. The principal manganese-producing areas are the Central Provinces, Madras, Bombay and Mysore. The industry reached its zenith in 1907 when India displaced Russia as the first among the world's producers of this metal, though in 1912-3 she gave way again to Russia. After 1914, however, Russian exports practically ceased. In recent years Russia, by non-economic methods of exploitation and finance, has been able to place large quantities of ore on the market at low prices. The

[1] In 1930 the prevailing depression was reflected in a decrease in the output and a fall in value.

South African deposits are also being developed. During the War, with the increasing production of ferro-manganese in India and the great rise of prices, the production of manganese was considerably stimulated. There has, however, been no appreciable effect on the quantity available for export, which still remains very large, being 816,000 tons of ore valued at Rs. 2,29 lakhs in 1929-30. These record exports declined in 1930-31 to 486,000 tons valued at Rs. 1,39 lakhs owing to the increase in stocks as well as to the decrease in steel production throughout the world, thus reducing the demand for manganese.

32. **Gold.**—India contributes only about three per cent of the world's production of gold. The most important gold-producing area in India is the Kolar field in eastern Mysore which contributes nearly ninety-eight per cent of the total Indian output. The production of the Kolar field is, however, on the decline. The greater portion of the balance comes from the Anantpur fields in Madras Presidency. The Nizam's mine at Hutti was opened in 1903 but has not been worked since 1920. The gold dredging in the bed of the Irrawaddy proved disappointing, its contribution being negligible. Insignificant quantities are also derived by washing in the Punjab, Central Provinces and United Provinces. The total quantity of gold produced during 1930 amounted to 329,232 ounces valued at Rs. 1,86,85,211.

33. **Silver, lead, zinc.**—Silver has only been added since 1909 to the list of metals produced within the boundaries of the Indian Empire. Nearly the whole output is derived from Bawdwin in Upper Burma and is quite negligible in comparison with the country's needs, India being the largest consumer of silver. It is obtained as a by-product of the smelting of the lead-zinc ores of Bawdwin. The opening up of the great ore deposits of Burma has made it possible to hope that before long Burma will be the chief new factor in the world's production of lead, of which about 65,967 tons valued at Rs. 2,20,27,742 were extracted in 1927. The Indian consumption is about 14,000 tons per annum so that a large amount is available for export. These same deposits are also an important source of zinc, of which a considerable quantity is exported. As in the case of lead, so in the case of zinc also, there is a prospect of India contributing an important portion of the world's supply. The deposits of Bawdwin must also be mentioned in another connexion, namely, that the lead, silver and zinc sulphides apparently provide a reserve of sulphur enough to meet India's demand, for the present, for the sulphuric acid which is so essential for industrial advancement, though this promise has not so far been realized.

34. **Petroleum.**[1]—There are two distinct oil-bearing areas in India on either side of the Himalayan arc; the one on the east, and by far the most important, includes Assam and Burma, contributing ninety-five per cent of the total output; the other on the west includes the Punjab and Baluchistan. The most successful oil-fields are found in the Irrawaddy valley in Burma, from which nine-tenths of the indigenous petroleum is obtained.

The production of petroleum in India has increased from about 118 million gallons in 1904 to 311·03 millions in 1930, which is the highest ever recorded. The enormous home demand for kerosene now exceeds even the greatly increased Burma supply, necessitating a large volume of imports of foreign kerosene oil, for example, 88·15 million gallons in 1927, 104·4 million gallons in 1928 and 108·5 million gallons in 1930. The Tariff Board estimate that 'the home supply stands at between thirty-five and forty per cent less than the total demand'.[2] Out of the petroleum products of India practically no kerosene is exported, the chief articles of export being petrol, benzine, paraffin wax and candles. Owing chiefly to increase in home consumption, exports of petroleum including petrol, benzine and benzol, are declining rapidly. In spite of the increased output of indigenous petrol, the supply is barely sufficient to meet the home demand. The export of petrol has practically ceased and the Tariff Board apprehend an imminent shortage in India which will have to be met by increased imports.

Petroleum statistics up to the year 1927 indicated a definite tendency towards a gradual decline of output, due especially to the decreased yield of Yenangyaung, the oldest and the most developed of the Burmese fields. They point to the increasing difficulty of maintaining the output of India (including Burma) at the high levels reached in 1919 and 1921, when peak productions of well over 305½ million gallons were reached, the production thereafter falling to 281,113,909 gallons in 1927. Nevertheless the figures of output in recent years appear to supply a corrective to this tendency. The output of petroleum was 305·9 millions in 1928, 306·1 millions in 1929 and 311·0 million gallons in 1930, the last total being the highest ever recorded. The increase of 1930 is the result of a very large proportionate increase in the production of Assam and of a small recovery in the output of Burma,

[1] For an interesting account of the progress of the petroleum industry see *Report of the Tariff Board* (Oil Industry), 1928, chap. i, noticed in our chapter on Indian Industries (vol. II) in connexion with the rates war with foreign oil.

[2] Ibid., par. 33.

though there was a serious fall in the output of the Punjab. The increased output from Assam (which was 1·8 per cent in 1916, 6½ per cent in 1924 and 15 per cent of the total output in 1930) has roughly neutralized the fall in the output of Burma during the same period and also the heavy fall in 1930 in the output of the Punjab. Unless, however, new fields of importance are discovered, it would seem desirable to follow a policy of careful economy rather than one of intensive development. The Tariff Board hold the view that the possibilities of both the Attock and the Assam fields are considerable.[1] The Indian production of petroleum represents only a small and decreasing percentage of the total world's production, which has rapidly increased in recent years from 96·7 million long tons in 1920 to 178·5 millions long in 1927. India's contribution decreased from 1·1 per cent to 0·64 per cent during this period in spite of an absolute increase in production.[2] In 1928, there was another substantial rise in the world's production (over 181 million tons). In 1929, there was another jump to over 202 million tons. But in 1930, the world's production fell to about 199½ million tons, the U.S.A. contributing 63 per cent and Russia 9·5 per cent of the world's supply. India's contribution, which was 0·64 per cent in 1928 declined to 0·60 per cent in 1929, and rose to 0·62 in 1930. India occupied the twelfth place in the list of petroleum producing countries of the world in the latter year.[3]

35. **Mica.**—Mica is principally used in the electrical industry as an insulating medium, and it assumed a position of great importance during the War in connexion with the developments of wireless telegraphy, of aeronautical science and of motor transport, which would have been impossible without it.

India has for many years been the leading producer of mica with an output of more than three-fifths of the world's total. Mica is found in Bihar, and in the Nellore, Salem and Malabar districts of the Madras Presidency, Travancore and Ajmer-Merwara and other parts of Rajputana. In 1928-9, 96,000 cwts. valued at Rs. 90·4 lakhs were exported. This probably represents the total annual production of India; the output figures are incomplete, being nearly half of the exports.

36. **Wolfram.**—This is the chief ore in tungsten and is indispensable for the manufacture of high-speed steels invaluable for War purposes. Tungsten also enters into other important uses, for instance, the manufacture of wire for the filaments of incandescent

[1] *Report of the Tariff Board* (Oil Industry), par. 5.
[2] Anstey, op. cit., p. 189.
[3] *Indian Year Book*, 1932, pp. 707-8.

lamps and for dyeing and fire-proofing, etc. Wolfram-mining commenced in India in 1910 and the very next year an output of 1,300 tons made Burma the leading wolfram-producing country in the world. The wolfram deposits of Burma, more particularly of the Tavoy fields, were of the greatest importance to the Empire during the Great War. Since the close of the War the industry has languished owing to the withdrawal of the War-time stimulus.

37. **Saltpetre.**—Saltpetre is in considerable demand for industrial purposes, for instance, in connexion with the manufacture of glass, for the preservation of food and for manurial purposes. Its production in India is practically restricted to Bihar, United Provinces and the Punjab. There was a time when India possessed a practical monopoly of the world's supply of nitrates so important in the manufacture of explosives and chemical manure. But partly owing to the tariff policy of the Government of India, who for some time tried to exploit the Indian monopoly for revenue purposes by the imposition of a heavy export duty, and partly owing to other causes, India was dislodged from this position by rival foreign producers. During the War a certain revival in the production of Indian saltpetre, which was required for munitions, took place. The cessation of the War demand and the competition of Chile nitrate and French potash salts in foreign markets have reacted adversely on the industry and the post-War exports have declined from the War average of 440,000 cwts. to 83,000 cwts. in 1930-31.[1]

Nearly the whole of the output is exported, a small part being retained in the country for consumption as a fertilizer, especially in the Assam tea gardens.

38. **Other minerals.**—Other minerals of subordinate importance as regards the place they occupy in Indian mineral production are lead, tin, copper, zinc, bauxite (aluminium), jade, chromite, potash, amber, diamonds, rubies, sulphur, etc.

39. **Salt.**—About three-fourths of the annual consumption of salt in India is produced in the country itself, the total consumption being above two million tons. The total output of salt during 1930 was 1,711,348 tons valued at Rs. 1,27,41,409. In the same year 688,629 tons of salt were imported into India. About sixty per cent of the Indian salt is obtained by evaporation of sea-water on the coasts of Bombay, Madras and Burma. Another source of salt is the Salt Range and the Kohat mines in the Punjab. In Kohat the salt resources are said to be practically inexhaustible. The other two sources are brine salt from the Sambhar lake in Rajputana

[1] *Review of the Trade of India in* 1930-31.

and salt brine condensed on the border of the lesser Rann of Cutch. The question of extending the production of salt in India so as to make the country self-sufficient was referred in 1929 to the Tariff Board, which reported in 1930. The normal demand for foreign salt may be placed at approximately 500,000 tons for the Bengal market, and 80,000 tons for the Burma market. The primary considerations in the Bengal market (which may be principally considered from the point of view of India proper) are 'whiteness, evenness of grain and absence of moisture'. Price is also a determining factor. Prices fluctuate violently in the Calcutta market owing partly to changes in freight rates, but mainly to operations of combines and dealers. The Tariff Board express the view that the whole demand of the Bengal market could be met by India and Aden (which produces 180,000 tons annually) if the sources of sea-borne salt (Karachi and Okha) as well as rail-borne salt (Khewra, Samber and Pachbhadra) were properly developed.

From the standpoint of national interests the supply of rail-borne salt from Khewra, etc. for Bengal is preferable to sea-borne salt from Karachi and Okha, though the latter centres enjoy certain special natural advantages. Rail-borne salt offers a guarantee against war-time shortage, additional traffic for railways and reduction in the price of salt following increase in production. But the deficiency of rail-borne salt should be made good by the sea-borne salt. The Board recommend a thorough survey by Government of these sources of supply with a view to their development and a full investigation of the question of reduction of railway rates for salt. To secure stabilization of price, so essential for the development of Indian sources of supply, the Board recommend, as an interim measure, assumption by Government of control of the import of salt into Bengal. Government should purchase at a fair selling price Indian sea-borne salt and popularize the use of rail-borne salt. The balance of requirements should be purchased from foreign manufacturers. This policy will prevent existing salt works at Karachi, Okha, and even the smaller works at Aden from being ousted by foreign competition. Since, however, Government are not the best agency for the sale and distribution of imported salt, the Board recommend the constitution of a Marketing Board as a public utility company which would be in charge of the import and sale of salt in northern India. In making its purchases the Marketing Board should give preference to Indian salt of the required quality, and a fair selling price should be fixed, subject to alteration in freight. Government should be permanently represented on the Board of Directors and enjoy the

right of veto.[1] In view of the serious fall in the price of imported salt and the consequent need for prompt action simpler than Government control, a recent Committee of the Assembly recommended an additional temporary duty of 4½ annas per maund on all foreign salt (except that from Aden, which is to count as part of India for this purpose). This recommendation was incorporated in the Salt (Additional Import Duty) Act, 1931, which came into force on 18 March 1931.[2] The Governor-General in council is empowered to raise the import duty by one anna per maund on salt, if necessary.

40. **Building stones.**—Amongst the most important of the building stones available in India are the sandstones which belong to the Vindhyan system of rocks and cover an immense area, from Dehri-on-Son to Hoshangabad and to Gwalior and from there to Agra and to Neemuch. Many of the great masterpieces of Indian art from the time of Asoka to the present day have been constructed out of this material. In the southern part of the peninsula, various igneous rocks are largely used. Other kinds of building materials are slates and limestones in the centre of southern India, basalt rock in Central Provinces and central India, etc., laterite, which is widely distributed throughout India, the famous Porbunder stone much in use in Bombay and Karachi, the marble of the Jubbulpore district and other parts of Central Provinces, and many other varieties too numerous to be mentioned.

41. **Cement-making materials.**—The chief raw materials required for making cement are chalk or limestone, and clay, which are found extensively in India, for instance, near Lakheri (Bundy State, Rajputana) and also at Katni, where limestone and clay of good quality are available. Other areas are Porbunder in Kathiawar, and the vicinity of Lucknow and Cawnpore in the United Provinces. Portland cements made in India are supposed to be equal to the best English brands. Altogether, the cement-making industry seems to have a promising future before it in India.

42. **Lime.**—The principal source of lime is limestone, which has already been referred to in connexion with its other uses. Its supply is practically unlimited, though only those deposits are worked which are most conveniently situated for purposes of transport or for some other special local reason.

43. **Vegetable resources.**—The extensive area of the country, differences in elevation, the wide range of latitude, climate and soil

[1] See *Report of the Tariff Board* (Salt Industry), 1930.

[2] The life of this Act, which was initially limited to one year, was extended by the Salt Additional Import Duty (Extending) Act, 1932, up to 31 March 1933.

make it possible for India to produce a large variety of vegetable products belonging to sub-tropical and temperate zones, as the following enumeration will show. (i) Food-grains: rice in Bengal, Bihar and Orissa, and Burma and to some extent in Madras and Bombay; wheat in the north-west parts of India; millet, such as jowar and bajra, in Bombay and Madras; barley in United Provinces and Bihar; ragi in Madras, United Provinces and Bombay; maize in Bihar and Orissa, United Provinces and Punjab; gram in Punjab, United Provinces, Bihar and Orissa, and Central Provinces. (ii) Herbs: condiments and spices in Madras, Bombay and Bengal; sugar-cane all over India, especially in United Provinces; coffee in Madras and Coorg; tea in Assam and Bengal. (iii) Seeds: oil-seeds such as linseed, sesamum, rape and mustard, ground-nut, castor, etc. in Madras, United Provinces, Central Provinces, Bombay and Burma. (iv) Fibres: cotton in Bombay, Berar, Punjab and Madras; jute in Bengal. (v) Miscellaneous: opium in United Provinces; tobacco in Bengal, Bihar, Bombay and Madras; fodder crops in Punjab and United Provinces; cinchona in southern India and Burma; india-rubber in Assam, Khasia Hills and Burma; and forest products.

A more detailed survey of the principal crops of India along with the efforts made by the Agricultural Department to improve the quality and yield will be found in the chapter on Indian Agriculture.

44. **Animal resources.**—There is hardly any need for emphasizing the importance of animal life to an agricultural country like India. The variety of Indian conditions has naturally developed a great variety of animal life, and the number of animal species found in India is much greater than that in Europe. The cow and the buffalo are mainly prized as supplying milk. The bullock plays an important part in the agricultural economy both as a draft animal and on the field, the use of horses or mechanical power being practically unknown. Animals used in agricultural operations, as well as goats and sheep, contribute practically all the manure used by the Indian cultivator, the use of artificial manure being as yet in its infancy. The humble donkey is ubiquitous and is used as a pack-animal everywhere. The camel is found in the sandier parts of the country and is used for purposes of transport across deserts. Fish is of immense importance, especially in provinces like Bengal, Assam and the coast-strips of the peninsula, where it supplies the people with the nitrogenous elements in their diet, elsewhere obtained by the use of pulses. The Indian seas contain many varieties of edible fish, but these resources still await properly organized exploitation along modern lines.

The extensive forests of India shelter a large variety of wild animals and birds and provide excellent game for the hunter.

45. **Sources of power.**—The principal sources of power available in India are coal, wood-fuel, oil and alcohol, wind and water. Coal has already been dealt with under minerals. We have also referred to the utility of forests as suppliers of wood-fuel. Many of the Indian forests are, however, confined to hilly tracts from which transport is a matter of great difficulty and expense. Even if this difficulty were to be effectively surmounted, it is doubtful whether the supply of wood-fuel could keep pace with the demand for it for industrial purposes unless extensive planting were undertaken. The Industrial Commission direct particular attention to the advantages of wood-distillation as a method of obtaining charcoal and certain valuable by-products like methyl alcohol, wood-tar, etc., by the sale of which the local cost of the charcoal would be greatly reduced. They suggest the employment of suction gas plant for all but the smallest units of power as extremely convenient and efficient, and from this point of view recommend the adoption of such methods as are likely to cheapen the cost of fuel for such plants. The position with regard to India's oil resources has already been examined under minerals and the need for careful economy in their exploitation has been insisted upon. As the possibility of the oil-bearing areas in Baluchistan, Punjab, Assam, etc., must still be regarded as problematical and as the Burma fields are being rapidly exploited, we cannot place much reliance on this particular form of power.

So far as the possibility of utilizing alcohol for supplying power for industrial purposes is concerned, certain vegetable materials seem to be capable of being treated so as to yield the requisite quantity of alcohol, but this is still a matter of conjecture and requires careful investigation and experiment. To facilitate this, certain relaxations of excise restrictions have been suggested by the Industrial Commission.

46. **Water-power.**—The supply of cheap motive power is one of the essential conditions of successful industrial development. The situation in India with regard to the supply of coal, wood-fuel or oil for purposes of generation of power is for reasons already indicated not quite so favourable as might be desired. There are, however, fair prospects for the development of water-power, which has been limited so far on account of the seasonal character of the rainfall, making costly storage works indispensable. Before the electric transmission of power over long distances became a practical success, only one or two fairly large cotton mills such as those at Gokak (Bombay) and a number of small factories on the planters'

estates in the hills utilized water-power to any appreciable extent, apart from the use of water-wheels on hill streams and at waterfalls on the irrigation canals to work flour mills. Within recent times, however, considerable attention has been given to large hydro-electric power schemes. The Mysore Durbar set up the first hydro-electric installation in the east on the Cauvery river at Sivasamudram with the main object of supplying power to the Kolar goldfields (1903). Subsequently the Kashmir Durbar established similar works on the river Jhelum, which have a capacity of carrying water sufficient for the generation of 20,000 electrical horse-power. The Western Ghats in the Bombay Presidency specially lend themselves to projects of this kind. Accordingly it is no matter for surprise that the greatest water-power undertakings in India are situated there. The Tata hydro-electric schemes mark a big step forward in the industrial development of India. The first of these works was started in the neighbourhood of Lonavla in 1915. The great industrial demand of the Bombay mills, however, still remained partially unsatisfied, and the necessity of further developing the electric supply was urgent. The next scheme, known as the Andhra Valley power scheme, is designed to yield 100,000 horse-power in its full development. Another important project, which is being carried out under the name of the Nila-Mula scheme, is calculated to supply 150,000 horse-power: and a gigantic Tata scheme is contemplated in the huge valley of the Koyna river. As a result of the completion of these schemes the handicap imposed upon Bombay by the absence of coal in its vicinity will be entirely removed; while the substitution of electricity for steam will also considerably alleviate conditions of public health in Bombay. Another important hydro-electric venture is the Mandi scheme in the Punjab which, when completely carried out, is expected to supply such enormous quantities of power that it will be able to serve a very large number of industrial centres and bring within its influence distant places like Delhi. In accordance with the recommendations of the Industrial Commission, the Government of India undertook, in 1918, a comprehensive hydrographic survey of India. The results of the survey have brought out various interesting possibilities in connexion with the development of hydro-electric power. For example, it is estimated that the minimum flow of the seven great rivers eastwards from the Indus is capable or giving not less than three million horse-power for every thousand feet of fall from the Himalayas, while similar considerations apply to rivers in other parts. It is hoped that the hydro-electric schemes will not only serve the purpose of supplying power to the industries but also of extending the irrigation facilities in India.

We may even be tempted to dream of a time when every village within a reasonable distance from a hydro-electric power station will receive its supply of electric current to help the development of rural industries and increase the amenities of rural life. The great obstacle to the realization of all these bright visions is the initial heavy expense of most of the hydro-electric schemes in India. The rainfall being seasonal, costly storage constructions are necessary and the expenditure thus incurred makes it difficult to supply power sufficiently cheaply. Even in industrial centres like Bombay, where coal is dear, the relative cheapness of hydro-electric power is not yet sufficiently pronounced. Whether science will be able to remove this difficulty, the future alone can show.[1]

47. **A poor people in a rich country.**—The foregoing survey has disclosed the rich and varied character of the natural resources of India. It is a commonplace remark that while nature has showered her bounties on the country with a liberal hand, man in India has failed to profit adequately by them. The contrast between the bounties of nature and the poverty of man is here very striking. Hence the usual statement, which has almost become a proverb, that India is a rich country inhabited by the poor."

[1] Gadgil, op. cit., pp. 338-9.

CHAPTER III

POPULATION

1. **Total population.**—The total population of India according to the latest census (1931) is 352,986,876, British territory containing 271,749,312 and the Indian States 81,237,564.[1] With an area of about half that of the United States, India has a population almost three times as large.

2. **Factors determining density.**—The density of the population (i.e. number supported per square mile) depends on the climatic conditions, security of life and property, standard of comfort, economic resources and the stage of economic development; in other words, on the external environment and the use of it made by man. If the economic resources are rich, obviously, other things being equal, a country will be able to support a higher density of population than if the resources are poor. Similarly, *ceteris paribus,* the more advanced the community in respect of its arts of civilization, the greater its capacity for supporting a dense population.[2] A highly industrialized and commercial country with intensive cultivation normally shows great density, for example, England and Wales (649) and Belgium (654). A purely agricultural population will generally support a very much smaller population. The fact that India is primarily an agricultural country explains the low average density of her population.

Again, the pastoral stage will support a smaller number per square mile than the agricultural stage, and the hunting stage even less. In an agricultural country, density of population will also depend upon the character of cultivation.[3]

Mere numbers supported per square mile have small significance unless we also take into account the standard of comfort of the population in question. The density of Bengal (608), for instance, approaches that of Belgium or England and Wales. There is, however, no comparison between Bengal and either of the other two countries mentioned as regards standard of well-being. The

[1] See *India in 1930-31,* p. 146.

[2] Natural elements such as drainage, altitude, configuration, rainfall, temperature, fertility of soil, etc. are no doubt of basic importance in determining the density and distribution of population. But as civilization advances the human element plays an increasingly important part by transforming the environment.—Seligman, *Principles of Economics,* tenth edition, p. 50.

[3] See Seligman, loc. cit.

high density in the case of Bengal can only signify great poverty, because Bengal is predominantly an agricultural province: and it is estimated that agriculture under the best conditions cannot maintain more than 250 persons per square mile at a reasonable level of comfort.

3. **Density and prosperity.**—According to the latest census the average density over the whole of India is 195 to the square mile. It is 248 in British India and 111 in the States and Agencies. For purposes of comparison, figures for the average density in some other countries are given in the following table.[1]

Belgium	...	654	Austria	...	199
England and Wales	...	649	Spain	...	107
France	...	184	Japan	...	215
Germany	...	332	United States	...	32
The Netherlands	...	544	New Zealand	...	11·8
			Egypt	...	34

A glance at the above table makes it clear that it is not possible to draw inferences about economic position from average density. For example, the United States and Egypt both show almost equal density, but the United States is incomparably the richer of the two. On the other hand, there is a great difference as regards density between the United States on the one hand and England and Wales on the other, which, however, does not prevent the two countries from being on a par as regards their economic position. The case of every country must be studied separately to find out the relation, if any, between the density of its population and its economic condition.

Column 4 in Table A (appendix) reveals great variation in density from province to province and state to state in India.

It is seldom possible to explain these disparities with reference to any one of the numerous factors which have a bearing on the density of the population. It would, for example, be erroneous to say that in India rainfall primarily determines density. Lower Burma receives the heaviest rainfall in India, but it is nevertheless one of the most sparsely populated tracts. Beyond a certain point, rainfall, far from being beneficial, is positively injurious. In most parts of India the optimum conditions are provided by an average annual precipitation of about forty inches of rain, provided it is properly distributed. It is only when the rainfall is less than this or badly distributed that the differences in the amount received exercise any considerable influence on cultivation and, therefore, on density of population. In so far as success in cultivation depends on water, irrigation will obviously have the same influence as

[1] *Census Report* (1921), p. 5.

rainfall and, therefore, when it is provided it is an important factor determining density.

Having regard to the fact, however, that irrigation affects only a very small proportion of the total area of India its general influence on density is negligible. Taking the country as a whole, configuration is a far more important factor. Other things remaining the same, successful cultivation depends largely on the shape of the surface. Where it is level, every inch of the land can be cultivated. Where it is undulating, although the lower slopes may be very fertile, cultivation is difficult and precarious. Throughout India the most thickly populated tracts are the level plains, for example, in Bengal, east United Provinces and the low-lying tracts along the east coast in the southern part of the peninsula. Extensive plains with vast stretches of fertile land and adequate rainfall are obviously conducive to high density as in the case of Bengal and United Provinces.

The fact that conditions are not so favourable in these respects explains the relatively lower density of Bombay. Burma, containing as it does a large forest area, is comparatively sparsely populated (though, even as it is, it is considerably under-peopled). Sometimes an unfavourable climate cancels all other advantages and leads to low density, as in Assam.

The nature of the soil becomes an important factor only when combined with the requisite amount of rainfall. Taken by itself its influence is not very marked in India. Moreover, the variations are on the whole comparatively too minute to be taken into account when dealing with large areas.

The disparities in regard to density are also due in some measure to the stay-at-home habits of the people and other difficulties in the way of free internal migration. The case of Delhi (density per square mile = 1,110) stands by itself, as the large urban population of the city of Delhi contributes the major part of the total population of the province.

4. **Distribution of the population according to religion.**—The Hindus largely outnumber other communities in the centre and south of India, more especially in the Madras Presidency, where they are no less than eighty-nine per cent of the population. Other provinces where the Hindus are in the majority are Assam, Bihar and Orissa, the United Provinces, the Central India tract, Rajputana and Bombay. The population of the North-West Frontier Province, Baluchistan and Kashmir is almost exclusively Mohammedan and is predominantly Mohammedan in the Punjab, Eastern Bengal and Sind. The Buddhists are almost entirely confined to Burma, contributing eighty-five per cent of its population. The Sikhs are similarly

confined to the Punjab. At the 1931 census the number of Jains in India was 1,252,105, and almost half of this total was in the Bombay Presidency (including Native States) and Baroda.[1] Those who are classed as Animists (following tribal religions) are principally to be found in Bihar and Orissa, the Central Provinces and Assam, though a fairly large number were also returned in Bengal, Burma, Madras, Rajputana, Central India and Hyderabad. More than three-fifths of the total number of Christians reside in South India. The Parsees and Jews belong primarily to the Bombay Presidency.[2]

5. **Distribution of population according to occupation.**—The following figures,[3] showing the population in thousands, serve to indicate the relative importance of the occupations from which the people of India derive their livelihood.

TABLE I

	1921		1911		Variation per cent
	Population supported by—(i)	Percentage of total population (ii)	Population supported by—(i)	Percentage of total population (ii)	
Total Population	316,055	...	313,470	...	+0·8
A. Production of raw materials ...	231,194	73·15	227,080	72·44	+1·8
(i) Exploitation of animals and vegetation (including pasture and agriculture, fishing and hunting) ...	230,652	72·98	226,550	72·27	+1·8
(ii) Exploitation of minerals ...	542	0·17	529	0·17	+2·3
B. Preparation and supply of material substances ...	55,612	17·59	58,106	18·56	−4·3
(iii) Industry	33,167	10·49	35,320	11·27	−6·0
(iv) Transport	4,331	1·37	5,028	1·60	−13·8
(v) Trade	18,114	5·73	17,756	5·69	+2·0
C. Public administration and liberal arts	9,846	3·12	10,456	3·48	−5·1
(vi) Public force	2,181	0·69	2,393	0·77	−9·0
(vii) Public administration ...	2,643	0·84	2,648	0·84	−0·1
(viii) Professions and liberal arts	5,020	1·59	5,409	1·70	−7·1
D. Miscellaneous	19,402	6·14	17,826	5·52	+8·8
(ix) Persons living principally on their income ...	479	0·15	540	0·17	−11·1
(x) Domestic service ...	4,570	1·44	4,599	1·47	−0·6
(xi) Insufficiently described occupations	11,098	3·51	9,236	2·95	+20·1
(xii) Unproductive	3,253	1·04	3,451	1·10	−5·1

[1] We are obliged to Mr. Findlay Shirras for pointing this out to us. (See *Economic Journal*, Sept. 1932, p. 469.)

[2] See *The Indian Year Book* (1932), p. 885.

[3] See *Statistical Abstracts for British India* (1924-5), pp. 36-7 and *Census Report* (1921).

TABLE II

Occupation	Actual workers		Dependents
	Males	Females	Both sexes
A. Production of raw materials ...	72,334	33,701	125,158
B. Preparation and supply of material substances	18,027	7,717	29,867
C. Public administration and liberal arts	3,663	451	5,730
D. Miscellaneous	6,583	3,933	8,884
Total ...	100,607	45,802	169,639

It will be seen from Table I that almost 75 per cent of the people obtain their livelihood from agriculture and allied occupations.

Agriculture proper supports 224 million persons or 71 per cent of the population. If we add the pastoral and hunting occupations the percentage rises to 73, while a considerable proportion of the large number of persons in the category of vague and unclassifiable occupations are probably labourers closely connected with the occupation of the land. Industries support 10 per cent of the population, but the bulk of these are engaged in unorganized industries connected with the supply of personal and household necessities and the simple implements of work. Organized industries occupy only 1 per cent of the people. In trade and transport, on which less than 6 per cent and 2 per cent respectively depend, not an inconsiderable number are connected with the disposal of the various kinds of agricultural products. The administration and protection of the country engages only 4,825,479 persons, or 1½ per cent of the population, and the remainder are supported by domestic, miscellaneous and 'unproductive' occupations. Though the extent to which agriculture predominates in individual provinces varies, there is no region in which it does not in some form or other easily take the first place. In spite of the trade of Calcutta and the numerous industrial and mining concerns of Bengal, and Bihar and Orissa, the population of the eastern provinces is overwhelmingly agricultural and contains a higher percentage of persons supported by the land than any other tract of India. Of industrial workers, the largest proportions in the local population are in the Punjab, the United Provinces and Bombay. Of these three provinces, however, agriculture dominates the economic life of the first two, where the industrial occupations, though they engage a substantial number of persons, are mostly of the cottage industry type. In Bombay the development of

organized industry is of some economic importance but is at present largely confined to a few of the biggest cities. In the category of unclassified occupations the majority of persons are labourers whose particular form of labour is unspecified and the rest mostly unspecified clerks.[1]

Amongst the civilized countries of the world India has the highest percentage of people dependent on agriculture and the lowest percentage of those employed in industries, trade, transport, etc., a fact which is brought out in the following table,[2] which gives the percentage of the total population supported by each.

Country and year of census	Exploitation of animals and vegetables	Mining and industry	Trade and transport
Germany 1907	28·6	42·2	13·4
Austria 1910	48·4	26·5	12·4
Italy 1911	34·2	16·9	5·0
Spain 1910	21·1	5·2	1·5
France[3] 1911	40·7	35·8	9·8
Netherlands 1909	10·9	13·5	7·5
Denmark 1911	36·4	27·3	16·6
Switzerland 1910	27·7	42·7	16·4
Great Britain and Ireland (workers only) 1911	11·6	56·8	13·1
United States (workers above ten) 1920	26·3	33·4	17·9
India 1921	72·9	10·6	7·1

The economics of a country dependent to so great an extent as India, on agriculture, must be unstable. Dependence on agriculture means dependence on rains; and if the rains fail there is necessarily widespread distress, involving the majority of the people. This will not be the case if a considerable section of the people cease to be directly dependent on agriculture. The Famine Commission of 1880 correctly diagnose the situation when they say that 'at the root of much of the poverty of the people of India and of the risks to which they are exposed . . . lies the unfortunate circumstance that agriculture forms almost the sole occupation of the masses of the population', and by way of prescription to remedy this state of affairs they recommend the development of manufacturing industries. A more even vocational distribution of the population through an all-round development of the economic resources of the country is greatly to be desired.

6. **Population in towns and villages.**—The preponderant position of agriculture is further reflected in the distribution of the

[1] *Census Report* (1921). [2] Brij Narain, *Population of India*, p. 92.
[3] Figures refer to workers only.

population between urban and rural areas as the occupations of the people determine their habitat. The following table shows the distribution of the Indian population between towns and villages, classified by population according to the census of 1921. (No considerable change in the distribution or proportion of the urban to the rural population is disclosed by the census of 1931.)

	Number	Population in millions
Under 500 inhabitants	517,036	95·98
500 to 1,000	105,017	73·00
1,000 to 2,000	47,272	64·29
2,000 to 5,000	15,965	45·08
5,000 to 10,000	1,871	12·42
10,000 to 20,000	517	6·99
20,000 to 50,000	198	5·86
50,000 to 100,000	55	3·60
100,000 and over	34	8·05
Encampment, boat and railway population, unclassed	...	0·69
Areas in which village statistics were not recorded	46	2·9
Total ...	688,011	318·86

The definition of a town adopted in the census of 1921 was every continuous collection of houses permanently inhabited by not less than 5,000 people, every municipality of whatever size, all civil lines not included within municipal limits, and every cantonment.[1]

All other places are classed as villages. According to this definition, while we have a total number of 2,675 towns, the total number of villages is 685,260 which shows an overwhelming preponderance of villages over towns. Contrast with this the position in western Europe. While India has a bare 16 per cent (11 per cent according to the census of 1931) of her population in towns, England has 78 per cent, the United States 52 per cent, France

[1] The general test of an urban area accepted for the census of 1931 was the possession of some form of municipal self-government to which was added any continuous collection of houses inhabited by not less than 5,000 persons which the provincial census superintendents considered should be treated as urban.

43 per cent and Germany 46 per cent.[1] Urbanization is proceeding at a snail's pace in India. Between 1891 and 1921 there was less than one per cent increase in the town population, as shown by the following table.[2]

	1921	1911	1901	1891
	Percentage of total population			
Towns having—				
100,000 and over ...	2·6	2·2	2·2	2·2
50,000 to 100,000 ...	1·1	1·0	1·2	1·1
20,000 to 50,000 ...	1·8	1·8	1·7	1·6
10,000 to 20,000 ...	2·0	2·0	2·2	1·9
5,000 to 10,000 ...	2·0	1·9	2·0	2·1
Under 5,000 ...	0·7	0·6	0·6	0·6
Urban territory ...	10·2	9·5	9·9	9·5
Rural territory ...	89·8	90·5	90·1	93·5

Another noteworthy fact is that the growth of commerce and industry is leading to a comparatively rapid increase of cities which are gaining at the expense, not of the villages, but of the middle-sized towns—a tendency especially marked in western India. Between 1911 and 1921, the towns with populations of above 50,000 have increased by more than 16 per cent; the increase has been considerably less in towns between 5,000 and 50,000, while the population of the towns between 10,000 and 20,000 has not increased even at the rate of the general population of the country.[3] The Industrial Revolution in western countries, on the other hand, resulted in a rapid growth of towns, which drew upon the country-side and not on the smaller towns, for the increased supply of their population—a tendency reinforced by the Enclosure Movement, which resulted in the dispossession of the yeomen. In most of the western countries the nineteenth century witnessed a great development of organized industries, resulting in a phenomenally rapid growth of the town population, in marked contrast with the almost stationary character of the urban population in India.[4] The overwhelming increase in the urban population in England as a result of the Industrial Revolution is too well-known a fact to be dwelt upon at length here.

[1] Brij Narain, op. cit., p. 67.

[2] See *Census Report* (1921), vol. I, p. 65. [3] Ibid., p. 66.

[4] In 1890, about 90 per cent of the German people lived in villages and only 10 per cent in towns, whereas the respective figures to-day are 54 and 46. In Austria, 91 per cent of the population was rural and only 9 per cent urban in 1843; in 1910 the proportions were 72·8 and 27·2 (Brij Narain, op. cit., pp. 69-70).

The present excessively uneven distribution between city and country, with only a negligible proportion of the people living in cities, is an index of the economic backwardness of the population. Ranade, commenting on the progressive ruralization (for he was writing at a time when the slight reverse movement towards urbanization was not in evidence), pointed out that it meant loss of power, intelligence and self-dependence. Civilization and progress have always originated in cities, from which they have radiated into the countryside which, left to itself, has seldom displayed the capacity for progressive development. The present distribution of the population between city and country in India could be radically altered in favour of towns only by the development of industries, trade and transport. We must not, indeed, overlook the perils associated with vast aggregations of population into a few mammoth cities like London, New York, Bombay and Calcutta, but the rise of medium-sized towns scattered all over the country would afford all the economies of large-scale production and the amenities of town life, while avoiding the dangers to moral and physical health associated with modern slums.

7. **Population according to sex.**—The sex-composition of the population has certain important aspects. 'The percentage of females affects the labour market to the extent that women are wage-earners, while a considerable predominance of either sex not only influences marriage and fecundity but exerts some effect on social life in general.'[1] According to the census of 1921, the number of males in India was 163,995,554 and that of females was 154,946,926, giving a proportion of 945 females to every thousand males. Professor Brij Narain gives the following table showing the sex-composition (number of females per thousand) of the Indian population at different ages and comparing India in this respect with some other countries.[2]

Country	Year	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70 and over
Germany ...	1910	989	995	1,001	1,004	1,033	1,112	1,219	1,314
Austria ...	1910	989	1,023	1,043	1,049	1,087	1,071	1,118	1,199
Italy ...	1911	963	1,017	1,121	1,108	1,057	1,031	1,028	1,098
Hungary ...	1910	990	1,012	1,059	1,051	1,028	993	1,017	1,061
France ...	1911	989	994	1,021	1,008	1,026	1,059	1,155	1,300
England and Wales	1911	996	1,009	1,114	1,082	1,078	1,093	1,167	1,416
United States	1910	979	990	953	903	884	859	925	1,023
Japan ...	1913	976	968	967	969	949	972	1,042	1,210
India ...	1911	992	874	1,024	910	912	950	1,092 [3]	
Do. ...	1921	998	869	1,022	905	902	926	1,049 [3]	

[1] Seligman, op. cit., p. 54.

[2] Op. cit., p. 42.

[3] These figures include all who were sixty or over.

This table reveals certain interesting facts. It shows that in the youngest group (0-10) there is a deficiency of females as compared with males in all countries.[1] But as we travel up the age-scale, Indian conditions begin to show a divergence as regards the proportion of females to males, and the general conclusion emerges that conditions in India are distinctly unfavourable to female life in contrast with European conditions. In India, after the period of adolescence is reached, the death-rate amongst females shows an excess over that of males contrary to European experience. An explanation is afforded by the existence of certain social practices such as that of the purdah, which is especially disastrous in its effects on the health of women residing in crowded towns and which is found amongst comparatively well-to-do Mohammedans and also amongst Hindus in those parts of the country where Mohammedan influence has been strongly at work. But the most important cause of excessive female mortality is the prevalence of early marriages which subject girls to the risks of motherhood at an age when they have not yet reached full physical maturity. As the Census Superintendent, Baroda (1901) observes, numbers of child-wives 'march from the nuptial bed to the funeral pile. Nervous debility, consumption, and the uterine diseases create havoc among them'. Another probable cause is that in India female life is held cheaper than in the west, not only by men but by the women themselves, and this results in a deliberate neglect of health in the case of females. Still another cause is the fact that women workers in field or factory are seldom in a position to enjoy the necessary period of rest before and after delivery and the strain of overwork inevitably impairs their physique. The unskilful midwifery of the village *dai* is a further contributory cause. What is particularly alarming about the situation is the fact that the proportion of females to males shows a definite progressive diminution from census to census.

The deficiency of the females in the general population is further greatly accentuated in the population of the towns, in contrast with the exactly opposite conditions which prevail in western countries where females are largely in excess of males in the towns. This

[1] While the deficiency of females at birth is a universal phenomenon, this disparity is seen to be corrected in European countries by the higher rate of infant mortality in the case of males than in the case of females. The disproportion of female to male children in India, however, has sometimes been regarded as a sign that the practice of female infanticide has not yet been completely stamped out. This practice is supposed to be prevalent, not only among the degraded races, but also to some extent amongst respected and reputable communities like the Jats, Khatris, Gujars, Rajputs, etc. See *Census Report* (1921), vol. I, Appendix VI.

is accounted for by the migratory character of the factory hands, who seldom bring their families to the towns, and secondly by the relatively very much smaller employment of women in town industries. The number of women per thousand males in 1921 was only 500 in Calcutta and 524 in Bombay.

It need scarcely be pointed out that this shortage of females in the towns adversely affects the health, comfort and morals of the workers.

The percentage of female workers to the total number of females in India and some countries is given below.[1]

India	(1921)	29·8	France	(1906)	38·9
Germany	(1907)	30·4	England and Wales	(1911)	25·9
Hungary	(1910)	22·5	United States	(1910)	18·1
Spain	(1910)	9·9			

The proportion of female workers to the total female population in India thus compares favourably with most of the other countries mentioned above. This is rather surprising and may be taken to indicate that the purdah affects only a negligible proportion of women. It also throws a sidelight on Indian poverty, because in India an improvement in earning capacity is generally followed by a withdrawal of the womenfolk from the ranks of workers. Prevalent ideas of respectability enjoin that the women of the household shall, if possible, not go out to work. The large proportion of women workers, therefore, indicates that very few people in the country can afford the luxury of idleness for their women. Their work is turned to account, although with reluctance, in order to add, however little, to the family income.[2]

8. **Distribution according to age.**—The principal economic significance of the age-composition of a population is the proportion

[1] Brij Narain, op. cit., p. 87.

[2] For census purposes, even a woman who is primarily occupied in domestic duties and gives only a fraction of her time to a remunerated occupation is counted as a worker. While it seems to be perfectly legitimate to ground the inference as regards poverty on the fact that a large number of women are compelled to seek employment outside their homes in spite of the existence of strong social prejudices operating against such a course, this does not affect the validity of the usual contention that the total *quantity* of female labour is very small in India relatively to western countries. Custom and prejudice keep many occupations closed against women in India, and this involves a large waste of female labour and makes the size of the national dividend smaller than it need be. The number of women workers is large but most of them being part-time and casual workers, the amount contributed by them to the total of paid labour is negligible in comparison with that of the male workers. Also the number of occupations closed to women is greater than in the progressive countries of the west.

of workers (effective population) to the total population. The age-distribution of the population of every country can be exhibited in the form of a pyramid. The smaller age-groups, which represent the largest proportion of the population, will obviously form the base of the pyramid which will narrow down as the higher age-groups are reached, until it will finally taper to a point, because after a certain age there will be no persons living to record. The shape of the pyramid will differ according to the relative proportions between the different age-groups in the total population. In the case of India, the age pyramid has the broadest base of all countries owing to the very high birth-rate. India has the largest proportion of children under ten. The pyramid also tapers towards a point more sharply than in the case of any other country, indicating the inferior longevity of the Indian population. There are relatively very few people in India who live beyond the age of fifty, as is shown by the following table, which gives the age-distribution per thousand of the population:—

Age	Germany	France	England and Wales	United States	Japan	British India	
	1910	1911	1911	1910	1913	1911	1921
Under 10	234	171	209	222	244	276	274
10-20	203	166	190	198	198	192	198
20-30	164	158	173	187	154	178	170
30-40	139	148	152	146	138	142	143
40-50	105	127	115	106	101	99	94
50-60	76	104	80	72	77	61	61
60-70	51	77	51	43	57	36	36
70 and over	23	49	30	26[1]	31	16	17

It will be seen from the above table that the difference between the numbers in the first and second groups is the largest in India, showing the enormous rate of infant mortality. Similarly, the last three groups, those representing the ages of 50 and over, show the smallest number of persons in India.

The commonly accepted limits for the productive or the working population are between the ages of 15 and 60 or 65, in Europe. In India, on the other hand, the upper limit has necessarily to be smaller because old age and incapacity for work set in much more quickly than in Europe. The accepted age-limits in India, therefore, are 15-40. The effective or working population of India in this sense is only 40 per cent of the total population. In France it is 53 per cent and in England 60 per cent, taking for these two countries

[1] Including 2·0 of unknown age (see Brij Narain, op. cit., pp. 27-8).

the limits of 15-60 for the productive population.[1] From the point of view of the labour-strength available, the position in India thus gives cause for dissatisfaction. Any steps calculated to improve the standard of public health, and increase the longevity of the people so as to increase the volume of the working population and to bring it into line with that of other countries, should be welcome.

It need hardly be pointed out that the age-distribution in the same country may vary from time to time. There may be, for example, changes in the normal birth- and death-rate. Again, war, famine, and epidemic diseases may alter the age-distribution. A war would reduce the proportion of the adult population. The incidence of famine and epidemics is different on the different age-groups. Famine affects children more severely than adults, whereas epidemics have the reverse effect.[2] Over a sufficiently long period it is obvious that excessive mortality amongst children will be reflected in a smaller number of adults some fifteen years afterwards. Similarly, if a large number of adults are carried off by disease during the reproductive period of life, this will in the course of time result in a reduced birth-rate and consequently a smaller proportion of children. Owing to the heavy mortality caused by the influenza epidemic of 1918 in India, the proportion of the working population to the total population may be presumed to have become more than normally unfavourable. While all sections of the people suffered more or less, the mortality was probably heavier amongst the adults.

The following table shows, in millions, the distribution of the population according to age and sex at the census of 1921.

Age	Total Population			Age	Total Population		
	Persons	Males	Females		Persons	Males	Females
0-5	39·65	19·48	20·17	35-40	18·96	10·30	8·66
5-10	46·74	23·84	22·90	40-45	19·58	10·07	9·51
10-15	36·74	20·17	16·57	45-50	11·64	6·34	5·30
15-20	26·14	13·65	12·49	50-55	13·74	7·03	6·71
20-25	26·06	12·56	13·50	55-60	5·57	2·99	2·58
25-30	27·59	14·02	13·57	60-65	8·88	4·31	4·57
30-35	26·13	13·37	12·76	65-70	2·51	1·30	1·21
				70 and over	5·34	2·58	2·76
				Age unspecified[3] ...		24[3]	24[3] ...
				Total		315·35	162·08 153·27

[1] See P. A. Wadia and G. N. Joshi, *Wealth of India*, p. 60.
[2] See Brij Narain, op. cit.
[3] Not in millions.

9. **The Indian birth- and death-rate.**—The size of the Indian population is determined almost exclusively by the birth-rate and the death-rate, both emigration and immigration being negligible factors. As regards both birth-rate and death-rate, India occupies a position of unenviable pre-eminence amongst the civilized countries of the world. The average birth- and death-rate, as seen from the figures for the different provinces in 1911, were 43·2 and 38·5 respectively, so that the birth-rate is not very far from the maximum of 45 per thousand and the death-rate is more than two and a half times the minimum of 15 per thousand laid down by economists for a normal population. In the more progressive European countries the tendency towards a progressive diminution both of the birth-rate and the death-rate has been strongly in operation. For example, in England and Wales for 1891-5 the births and deaths per thousand were 30·5 and 18·7 respectively. The corresponding figures for 1926 were 17·8 and 11·6.

In India no such striking diminution of birth- and death-rate has occurred. On the contrary, during certain periods an actual increase in both is visible, as will be seen from the following table.[1]

Period	Ratio of births per thousand	Ratio of deaths per thousand
1885-90	35·83	27·44
1891-1900	35·43	31·31
1901-10	38·18	33·94
1911-7	38·68	30·31
1918	35·35	62·46
1919	30·24	35·87
1920	32·98	30·84
Average of 1911-20	36·93	34·13
1921	32·20	30·59
1922	31·85	24·02
1923	35·06	25·00
1924	34·44	28·49
1926	34·77	26·76
1927	35·27	24·89
1928	36·79	25·59
1929	35·47	25·95

10. **Death-rate.**—A high and unchecked birth-rate is usually associated with a high death-rate. The high death-rate in India is in the last resort due to general poverty, which makes the people peculiarly non-resistant to diseases like malaria, plague and influenza. The low vitality of the Indian people explains the fact

[1] The statistics for the years 1885 to 1920 have been taken from Brij Narain, *op. cit.*, and the rest from the *Statistical Abstract for British India* (1929-30).

that at most ages the expectation of life is lower than in the European countries, as can be gathered from the following table.[1]

Countries	At birth	10	20	30	60	80
			MALES			
India	22·59	33·36	27·46	22·45	10·00	3·06
Germany	47·41	52·01	43·43	35·29	13·18	4·41
Denmark	54·90	55·10	46·30	38·00	15·20	5·10
England and Wales ...	51·50	53·08	44·21	35·81	13·78	4·96
France	45·74	49·75	41·53	34·35	13·81	4·87
			FEMALES			
India	23·31	33·74	27·96	22·99	10·11	3·06
Germany	50·68	53·99	45·35	37·30	14·17	4·52
Denmark	57·90	56·70	48·00	40·10	16·50	5·50
England and Wales ...	55·35	55·91	47·10	38·54	15·48	5·49
France	49·13	52·03	44·02	36·93	15·08	5·38

The expectation of life in European countries generally has been showing a decided improvement owing to better conditions of life and greater control over the preventible causes of death; whereas in India, economically speaking, the country has been practically at a standstill, and the improvement noted in the case of European countries has failed to appear. In fact, it is possible to make out a plausible case to show that a positive deterioration has set in. The shortness of the average expectation of life in India implies that men who have gathered experience and wisdom are snatched away when their power to be of service to the community is at its highest.

The two outstanding features about the death-rate in India are the high infantile mortality and the high female mortality at reproductive ages. The infantile mortality is higher in India than in any of the civilized countries. About one-fifth of the children born die before they reach the age of one year, and the infant death-rate amounts to one-fifth of the total death-rate for all ages. Owing to the highly insanitary conditions prevailing in the bigger cities in India, infant mortality is especially heavy there; for instance, in Bombay it is 556 per thousand as against something like 60 in

[1] Brij Narain, op. cit., p. 34.

London. There was a time when in European countries infantile mortality was as high as in India to-day, but in the course of the present century a most remarkable decline has been achieved, as can be seen from the following table relating to England and Wales.[1]

Period	Deaths under one year per thousand births	Period	Deaths under one year per thousand births
1850-5	156	1911-5	110
1870-5	153	1916	89
1891-5	151	1924	75
1896-1900	156	1925	75
1902-5	138	1926	70
1906-10	117		

The following figures for infant mortality in India afford a painful contrast.[2]

Year	Deaths under one year per thousand births		Year	Deaths under one year per thousand births	
	Males	Females		Males	Females
1911	214	196	1916	209	195
1912	216	199	1917	212	198
1913	193	197	1918	274	260
1914	219	204	1919	228	220
1915	208	195	1920	201	188

This heavy rate of infant mortality shows no signs of appreciable abatement at all comparable to the decline that has taken place in western Europe. Part of it is attributable to the custom of early marriage, which impairs the vitality of the infant as well as that of the mother. Drugging the child with opium when the mother wants to be free for work and also the growing difficulty of securing a plentiful supply of good milk—factors which are present in an especially acute form in large towns though by no means altogether absent in the villages—are important contributory causes. Overtopping all these causes and largely explaining them is the influence of the grinding poverty of the masses. The second peculiarity in connexion with the Indian death-rate is the excessive mortality amongst women of child-bearing age. As we have already

[1] See *The Nation and Atheneum*, 29 January 1927.
[2] See Brij Narain, op. cit., p. 25.

analysed the causes of this phenomenon there is no need of further comment on it.

11. **Growth of population.**[1]—The actual increase in the Indian population has been very slow from decade to decade when we consider the period of the last fifty years or so, for which census statistics are available, the reason being that although the birth-rate is high, the death-rate has almost kept pace with it. The survival rate in India, therefore, is lower than in Europe, where, although the birth-rate is much lower, the death-rate is lower still. Between 1872 and 1921 the population in India increased by only 20 per cent. The population was 315,156,396 in 1911 and increased to 318,942,480 which gives a percentage of 1·2. The widespread failure of the rains in 1918, together with the havoc wrought by the great influenza epidemic which 'wiped out in a few months practically the whole natural increase in the population for the previous seven years', was responsible for the exceptionally low rate of increase during 1911-21. The total number of deaths due to influenza has been estimated at between twelve and thirteen millions.[2] The following table shows the irregular movement of the population from decade to decade.

Nominal Increase		Variation percentage since last census
Census of	Population in millions	
1872	206·16	...
1881	253·89	+ 23·2
1891	287·31	+ 13·2
1901	294·36	+ 2·5
1911	315·15	+ 7·1
1921	318·94	+ 1·2
1931	352·8	+ 10·6

The real increase, however, can be arrived at after making allowance for the increase of area and population enumerated at each census and for the fact that the methods of taking the census have become progressively more and more accurate. After making

[1] Read *Census Report* (1921), vol. I, p. 7.
[2] *Census Report* (1921), vol. I, p. 14.

due allowance for these factors we arrive at the following result representing the real increase.[1]

Period	Increase due to inclusion of new areas (millions)	Increase due to improvement of method (millions)	Real increase of population (millions)	Total (millions)	Rate per cent of real increase
1872-81	33·0	12·0	3·0	48·0	1·5
1881-91	5·7	3·5	24·3	33·5	9·6
1891-1901	2·7	0·2	4·1	7·0	1·4
1901-11	1·8	...	18·7	20·5	6·4
1911-21	0·1	...	3·7	3·8	1·2
1921-31	0·0	...	34·0	34·0	10·6
Total ...	43·3	15·7	87·8	146·8	30·7

Whereas the percentage increase of population between 1870 and 1910 was about 20 in India, it was 58·2 in England and Wales, 53·2 in Denmark, and 45 in Europe as a whole excluding Russia.[2] Including Russia the population of Europe increased from 305 millions to 448 millions, or about 47 per cent.[3]

The periods showing an abnormally small rate of increase in India are marked by the appearance of special calamities like famines and plague, cutting off the natural increase to a very large extent. Thus there was a severe famine in south India during 1876-8, and during 1890-1900 plague and famine joined hands to check the increase.

The period of 1901 to 1911 is described as one 'of moderate agricultural prosperity', and population would have increased very substantially had it not been for the appearance of plague and of malaria in an epidemic form which carried off large numbers in the Punjab and United Provinces. The decade of 1881 to 1891 was the only period which escaped from any exceptional disaster. It has therefore been suggested that the rate of 9·6 per cent must be regarded as abnormal, and that some deductions must be made if we wish to arrive at the normal increase of the population. By normal increase we mean an increase that would result if conditions were neither exceptionally favourable nor exceptionally unfavourable. The Census Commissioner for 1921, places 'the probable natural increment in India at the present stage of development, and apart from exceptional calamities, at between 7 and 8 per cent in the decade.'[4] This is probably an underestimate. The actual increase

[1] *Census Report* (1921), vol. I, p. 7 and *India in 1930-31*, p. 146.
[2] Brij Narain, op. cit., p. 11.
[3] *Grundriss der Sozialökonomik* (1923), II, i, p. 79, 'Wirtschaft und Natur'
[4] *Census Report* (1921), p. 48.

for the whole of India between 1921 and 1931 was as much as 10·6 per cent in spite of the influenza epidemic in 1918 which was held to have mainly affected the population at the reproducing age.

On the other hand, the decade prior to 1931 was exceptionally favourable for an increase in population, which actually reached 34 millions.[1]

12. **Problem of over-population: controversy in Europe and India.**—The common notion that the population of the world has been continuously and steadily increasing ever since the dawn of civilization is not borne out by the testimony of history. On the contrary, stability of population has been the normal condition throughout long centuries, and rapid growth of numbers has occurred only within comparatively recent times. During the last hundred years or so the population of the world has increased from 910 millions to 1,851 millions. This phenomenal increase has been due to the great scientific discoveries and the epoch-making inventions of new machines and processes of the nineteenth and twentieth centuries which have enabled vastly larger numbers to be maintained in much greater comfort than before. One of the most vital questions which is at present engaging the attention of publicists and economists the world over, is whether the present rate of growth of the population is likely to be maintained by scientific advance keeping pace with it or whether we must consider that 'the magnificent episode of the nineteenth century is over' (J. M. Keynes), and that the only way of retaining the beneficent effects on human welfare of the marvellous achievements of science is deliberately to restrain the growth of population so as not to allow it to press unduly on the means of subsistence. The opinion has been steadily gaining ground of late that even the most advanced modern states are in danger of over-population.

In India there has been much controversy on the question whether unrestricted multiplication has not been one of the major causes of Indian poverty." The official view has been in favour of the theory that over-population is a potent cause of Indian poverty, while the politicians have generally opposed the theory because its acceptance seemed to exonerate Government from all blame or responsibility for the undeniable poverty of the Indian people.

13. **Meaning of over-population.**—Before we take up the question of over-population with reference to India, it is necessary to have a clear conception as to what we mean by over-population.

Over-population may be regarded either as a state or as a tendency and it is best to relate it on the idea of an optimum population.

[1] See *India in 1930-31*, pp. 150-1.

This has been explained as follows by Cannan:—'At any given time, or which comes to the same thing, knowledge and circumstances remaining the same, there is what may be called a point of maximum return, when the amount of labour is such that both an increase and a decrease in it would diminish proportionate returns. . . . Just as there is a point of maximum return in each industry, so there must be in all industries taken together. If population is not large enough to bring all industry up to this point, returns will be less than they might be, and the remedy is increase of population; if, on the other hand, population is so great that the point has been passed, returns are again less than they might be, and the remedy is decrease of population.'[1] Over-population means a departure from the optimum in the direction of an excess of population.

Increased population means increased labour power, which generally results in an addition to the *total* wealth; but the significant question is whether this addition is proportionate to the increase of population, so that the share per head remains the same as before. It is true that with every mouth God sends a pair of hands, but what we want to know is whether the fresh pair of hands will be able 'to pull their own whole weight'. When a given population shows signs of increasing in such a manner as to make us expect a diminution of income per head, we speak of a tendency to over-population. When we have reasons for expecting that if a certain diminution in existing numbers were to occur it would lead to an increase of income per head, we speak of a state of over-population.[2] It is not uncommon to have both the tendency and the state existing together, and, in the opinion of many people, this is the case in India to-day. Recent analysis has shown that Malthus' theory of population is defective in several particulars but it still contains an important kernel of truth. Malthus was fundamentally right in his estimate of the power of human increase and in suggesting that, except under most unusually favourable circumstances, means of subsistence will not keep pace with the growth of population if human fecundity is realized to the full. It has been calculated, for example, that at the present average ratio of increase—which, be it remembered, is by no means the highest *possible* rate, severely restricted as it is by positive as well as preventive checks—a single pair would produce in 1,750 years descendants equal in number to the present population of the world. Such being the power of human fecundity it is clear that, given full play, it would easily

[1] E. Cannan, *Wealth*, pp. 68-9.

[2] Cf. P. S. Florence, *Over-Population*, p. 11.

overtake any conceivable progress in the arts of wealth-production. If, therefore, the fact of unchecked procreation is established with reference to any country, this must be regarded as presumptive evidence so strong as almost to amount to positive proof, that the country in question is suffering from over-population. Symptoms of over-population are a high birth-rate and a high death-rate—especially infantile death-rate.

14. **The case of India.**[1]—In the light of the above discussion we are now in a position to consider the question whether over-population can be predicated of India at the present time either as a state or a tendency or both.

The most important point in this connexion is to consider whether any of the preventive checks to the growth of population are in effective use in India. If we come to the conclusion that preventive checks do not exist or that their influence is negligible and that population is mainly restrained by the operation of the positive checks, we shall have made out a strong case for over-population as a present evil in this country.

15. **Preventive checks.**—The various preventive checks on population[2] may be classified as follows: (i) Lower marriage (or union) rate due to postponement of marriage, or celibacy. (ii) Lower fertility per marriage. (*a*) Natural: lower fecundity. (*b*) Circumstantial: absence of husband, etc. (*c*) Deliberate: abstinence, 'self-control', use of contraceptives, deliberate abortion, etc. (iii) Certain social customs and habits: for example, prolonged lactation, hypergamy, etc. (iv) Infanticide. (v) Poverty, disease, etc.

We shall now discuss the question whether one or more of these checks are in use in India and whether their operation is effective in counteracting the natural tendency of human increase to outrun the means of subsistence.

16. **Marriage rate in India.**—The first point to note in this connexion is the universal prevalence of the married state in India. Religion in the west frequently enjoins celibacy, but in India its weight is thrown into the scale in favour of matrimony. Every Hindu 'must marry and beget children—sons if you please—to perform his funeral rites lest his spirit should wander uneasily in the vacant places of the earth'.[3] In order to avoid social obloquy all

[1] For an excellent discussion of the problem of over-population in India the reader is referred to the paper read by C. J. Hamilton before the Seventh Indian Economic Conference held in Bombay in 1924. We have adopted Professor Hamilton's general line of argument, though not without considerable variations.

[2] Cf. P. S. Florence, op. cit., p. 18.

[3] P. K. Wattal, *The Population Problem in India*, p. 3

girls must be married before puberty.[1] Amongst Mohammedans and Animists, though religious obligation is wanting, early marriage is equally common. The institution of the joint family further encourages it. The family resources being available for the support of the newly wedded couple for an indefinite length of time, prudential considerations such as those which often compel postponement of marriage in Europe have hardly any influence in India. On the contrary, economic considerations promote marriage amongst the masses instead of retarding it, because the wife is necessary as a household drudge and often helps the husband even in outdoor work. The children are also put to work of some kind at the earliest practicable age and begin to pay their way as soon as possible. They are not felt to be a burden, because the prevalent standard of life is the lowest compatible with mere existence and does not demand prolonged training for children to enable them to maintain the extremely low standard of life to which they are accustomed. The ultimate wastefulness to society of using up its young life too quickly is not commonly realized, and even if such a realization were more common than it is, extreme poverty would hinder parents from putting their children through a long course of training and equipping them more efficiently for the battle of life.

In 1921, the total population was 318,942,480[2] out of which 80,685,132 males and 54,841,195 females were unmarried, and 71,057,754 males and 71,593,131 females were married. In the same year, 10,338,392 males and 26,834,838 females were widowed.

Amongst males only 498 per thousand are unmarried and amongst the females only 358 per thousand in the general population. This is the lowest proportion of unmarried for both sexes of all countries. At the age of twenty, 298 per thousand of the males and 771 of the females are married. A very high proportion of males are married by thirty and practically every female by twenty. Child marriages are common, the age of marriage being somewhat higher for boys than for girls.[3] The following tables[4] show that

[1] 'If a high-class Hindu maiden is unmarried at puberty, her condition brings social obloquy on her family and on a strict reading of certain texts entails retrospective damnation on three generations of ancestors.'—H. Risley, *People of India*, p. 154.

[2] Of these, 3,592,038 persons were not enumerated according to civil condition.

[3] The Child Marriage Act (1929) fixes the age of marriage for girls at fourteen. While the measure is welcome as a beginning, its effects from the point of view of numbers are of course entirely negligible.

[4] See C. J. Hamilton, 'The Population Problem of India', in *Proceedings of the Seventh Indian Economic Conference* (Bombay, 1924).

in spite of provincial variations the marriage rate in India is extremely high compared with that in Europe, the figures for England and Wales being taken as representative of western Europe generally.

(A) Proportion of married persons per thousand of each sex

Province	Age	Males			Females		
		1921	1911	1901	1921	1911	1901
Bengal	15-19	228	274	...	881	896	...
	20-39	795	817	...	784	792	...
Bihar and Orissa	15-19	450	419	...	792	828	...
	20-39	807	830	...	824	841	...
Punjab	15-19	263	275	290	753	773	755
	20-39	660	661	695	890	882	896
United Provinces	15-19	459	475	495	870	886	878
	20-39	743	758	775	862	868	862
Bombay	15-19	328	349	348	831	851	796
	20-39	746	770	764	819	840	818

(B) Unmarried females per thousand females, 1921

Age	Bengal	Bihar	United Provinces	Punjab	Bombay
10-15	459	535	488	744	486
15-20	55	262	95	227	125

(C) Unmarried persons per thousand, 1921

Age	Bengal		England and Wales	
	Males	Females	Males	Females
15-20	766	55	998	988
20-25	410	20	857	757

In some cases a considerable period may intervene between the marriage and its consummation but these cases are very rare and they may on the whole be ignored.

The universality of marriage is offset—though to a very negligible extent—by the fact that widow remarriage is rare among the Hindus, though the prejudice against it is gradually waning.

There has been in recent times a certain movement in favour of postponing the age of marriage both in the case of males and females. But this movement is confined only to the educated classes who are numerically insignificant; it has not yet touched the masses. Moreover, the tendency towards deferring marriage, in so far as it is seen at all, is more marked in the case of males than of females. Postponement of marriage, however, is far more effective from the point of view of restricting population if it applies to girls rather than to boys. From another point of view again it is a question whether postponement of the age of marriage, unless it is very considerable, will not in the net result tend to increase rather than diminish population. The baneful effects of early marriage on the physique of the married couple, especially of the wife, keep down the fertility, which will tend to increase with the increase in the age of marriage. Another evil associated with early marriage is pre-puberty intercourse. This practice is said to be more common than is generally recognized. By inflicting serious physical injuries on the girl-wife it causes diminished fertility. While the abolition of the custom of early marriage ought to be one of the most important items in any programme of social reform, we must not forget that its net effect might very well be a more rapid increase of population unless the average age of marriage, particularly in the case of women, is very considerably raised and unless other checks come into operation.

The upshot of the whole matter, then, is that the check to the growth of population due to abstention from marriage or its postponement is practically non-existent in India, and animal instinct fortified by semi-religious sanctions is allowed full play. It is, therefore, not surprising that the Indian birth-rate is one of the highest in the world.

17. **Lower fertility:** (*a*) *Natural.*—But in spite of the immensely higher birth-rate, the effective increase of population in India is much lower than in European countries, the reason being the very high death-rate in India. It is often stated, however, that part of this result is to be attributed to the inferior fecundity of the Indian. The fertility in the case of married women of reproductive age in India is calculated at 160 per thousand as against 196 per thousand in

England[1] and this is cited in support of the theory that progress in civilization is attended with increase in fecundity.[2] It is necessary to distinguish carefully between fecundity and fertility. Fecundity is used in the sense of power of reproduction and fertility is taken to mean the actual degree of reproduction. The statement that Indian fecundity is lower does not mean that a smaller number of children in proportion to the total population is born in India every year, for this is notoriously untrue, but that, other things being the same, an Indian woman during her reproductive period is capable of producing a smaller number of children than, say, an English woman. However, in England the power of reproduction is not realized fully because celibacy and postponement of marriage are far more common than in India. Hence the fact of a higher birth-rate in India is not incompatible with the theory that Indian fecundity is lower.

It is argued that this difference in fertility cannot be explained entirely by the prevalence of early marriages in India; for although it is no doubt one of the important causes reducing fertility, the widespread use of preventive checks in Europe must be granted to be far more effective in this sense, and the smaller fertility in India[3] must, therefore, be put down to lower natural fecundity of the Indian as compared with the European races. It seems to us, however, that the theory which associates increase of fecundity with advance in civilization is of the nature of a mere hypothesis not yet sufficiently verified by unimpeachable evidence. It is possible that,

[1] See Carr-Saunders, op. cit., p. 67.

[2] A good deal of confusion often results owing to failure to differentiate carefully between fecundity and fertility. When, for example, it is said that fecundity is greater amongst the Mohammedans than amongst the Hindus, the actual reference is to the fact that the Mohammedans are increasing faster than the Hindus. From this alone the higher fecundity of the Mohammedans cannot be inferred. There are a number of other factors which afford a sufficient explanation of the higher rate of increase amongst the Mohammedans, such as the relative weakness of the custom of early marriage (which is injurious to health and therefore lessens fertility), the prevalence of widow remarriage, the absence of hypergamy, a more generous dietary, a larger survival rate, etc. The greater rate of increase of the Mohammedan population revealed by successive censuses may also be partly due to the conversions from Hinduism to Islam (not altogether completely offset by re-conversions to Hinduism, the Shuddhi movement notwithstanding) and further, to the fact that other religions like Christianity are able to effect a larger number of conversions from the caste-ridden Hindus than from the Mohammedans.

[3] We are, of course, comparing the number of children produced by a married woman in India with those produced by a married woman in Europe. It need scarcely be pointed out that the proportion of married women to the total population is far higher in this country than in Europe, accounting for the relatively higher birth-rate in India.

in explaining the lower number of births per marriage in India, the influence of early marriage with its disastrous effects, especially on the health of the woman, is very much underestimated. It is further possible that the proverbial poverty of the Indian people may have physiological consequences leading to a diminution of fertility. There are also certain other inconvenient facts which the theory must face. For instance, the figure for the births per thousand of the married female population of Burma is 229[1] which is much higher than the corresponding figure for England. Obviously, the greater fertility of the Burmese cannot be taken as an indication that the English people are on a lower plane of civilization than the Burmese. Again, the Animists are more prolific though very much lower in civilization than the Hindus. The question as to the connexion between civilization and fecundity has not yet received thorough scientific investigation, and in the meanwhile we shall be entirely justified in refusing to attach any importance to the supposed inferior reproductive capacity of the Indian people as one of the factors tending to repress the growth of population.

(*b*) *Circumstantial.*—Prolonged separation between husband and wife may occur sometimes; for example, owing to failure of rain, the husband wanders away from his family and may be absent from his home for months together. But this phenomenon is fortunately so occasional that we need not stop to consider its effect in the direction of lowering fertility.

(*c*) *Deliberate.*—Moral abstinence in the Malthusian sense is certainly not practised to any appreciable extent and the same remark applies to the modern neo-Malthusian devices. There is reason to believe that they are gradually coming into use among the higher middle classes in the big cities and a wider spread of their use may be anticipated in future. But at present their influence in checking the birth-rate in India is practically nil.

Deliberate abortion is still practised to some extent, but the law very properly regards this practice as highly criminal and its influence, such as it happens to be at present, in preventing the maximum increase of population in India is rapidly on the wane.[2]

18. **Social customs: prolonged lactation, etc.**—The habit of prolonged suckling is common in India and in popular opinion supported by medical testimony, it results in decreased conceptivity. In Europe, influenced by ideas of preservation of beauty, the mother

[1] See Wattal, op. cit., p. 7.

[2] Abortion, so far as it is resorted to, is used more for concealing crime and preventing illegitimate births than as a well-recognized method tolerated by any large section of public opinion to restrict legitimate births.

sometimes does not feed the child at the breast at all; or if she does, the child is weaned much sooner than in India. According to medical authority, lactation prolonged beyond nine months or a year is harmful both to mother and child, which is another reason why it is avoided by the European mother. But the general prevalence of the practice in India must be recognized as an appreciable factor acting in the direction of restraining the growth of population.

We have already remarked above that voluntary abstention from intercourse in married life with a view to checking multiplication is almost entirely absent in India. There are, however, certain religious injunctions which result in compulsory abstention at certain periods; for example, Manu enjoins separation from wife at new and full moon. Owing to various modern influences the faithful observance of such rules is becoming less and less common. But even otherwise, the rules do not require prolonged abstention and their practical effect is altogether negligible.

The custom of hypergamy is still prevalent in some parts of India, for example, in Eastern Bengal, and must to a certain extent check population. It forbids the marriage of a girl with a man of a social group equal or inferior to hers and forces her to marry a man belonging to a superior group. The number of bridegrooms belonging to the upper groups being limited, they become the objects of keen competition which leads to the evils of high dowries, wholesale polygamy, etc.[1]

19. **Infanticide.**—In extreme cases the difficulty of disposing of a girl in marriage in the manner prescribed leads to female infanticide. The social and religious obligation to marry girls before puberty makes the birth of daughters generally unwelcome and is one of the causes of the neglect of female children, and the custom of hypergamy wherever it prevails makes matters worse for them. But actual female infanticide[2] as a regular custom is on the wane

[1] 'I know of two Kulins, one of whom married sixty wives and the other had upwards of a hundred; each of these men had a book in which he entered the names of the fathers of the wives married. At the commencement of the cold weather, he would start on his connubial tour with his memo. book, and after collecting money from each wife visited, according to her father's circumstances, return home at the beginning of the summer to spend the rest of the year in his village. . . . '—Babu Abhaya Chandra Das, quoted by Risley, op. cit., pp. 166-7. Kulinism does not at present prevail on such an outrageous scale but it is not altogether extinct. Risley goes on to refer to 'a modern development of the principle of hypergamy which has arisen from the demand for graduate husbands in the marriage market of Bengal'.

[2] In the Punjab 'conditions are probably better than they were twenty years ago, but there are still Jats and Rajputs who would rather see their daughters dead than married beneath their station'.—M. L. Darling, *The Punjab Peasant in Prosperity and Debt*, second edition, p. 56.

like deliberate abortion, and the combined force of law and public opinion may be expected before long to destroy even its vestiges.

20. **Poverty and disease.**[1]—We have already alluded to the probable effects of poverty itself in limiting the birth-rate by impairing physical vigour. Poverty, however, is generally recognized as a cause of improvidence and recklessness in breeding. But in India we might say that, if anything, poverty acts rather as a discouragement than a stimulus to marriage because religion has decreed marriage as a duty to be fulfilled at all costs; so that it is often deferred reluctantly because of the absence of means to meet the necessary expenses, and as soon as the financial position is improved the very first opportunity is taken to perform the postponed ceremony.

Malarial fever, from which hardly any part of India is entirely free, is unfavourable to fertility, as women at the reproductive ages are particularly liable to it. In Purnea in Bihar, which is malarious, the highest birth-rate during the decade 1911-21 was 36·95 per thousand, whereas in the healthier parts of the province a birth-rate of 46 per thousand is not unusual (Hamilton).

21. **Conclusion.**—We have considered above the extent to which the different preventive checks—voluntary as well as involuntary—operate at the present time in India. But the high birth-rate indicates clearly that the combined effect of all these checks is small. Some of them, like infanticide and abortion, are on the way to extinction and others, like early marriage, hypergamy and prohibition of widow remarriage, will lose their force with the progress of social reform and general enlightenment. The removal or weakening of the preventive checks, unless it is balanced by the advent of new checks, will obviously accentuate the tendency of population to outrun the means of subsistence.

There is an inverse co-relation between the positive and preventive checks; in the absence of prudential methods of equating population with means of subsistence, painful methods come into operation. It is hardly open to doubt that India is paying the penalty of unchecked procreation and allowing the inexorable law of nature to work its pitiless solution, 'so that the superfluous millions go down to fatten the tired earth which could not fatten them.' It is not denied that the high death-rate may be partly due to the inadequacy of public hygiene and the general ignorance of the laws of health, but even these are ultimately traceable to poverty. Of the English people, admittedly one of the richest

[1] Poverty and disease are generally classed under positive checks, but here they have been included under preventive checks because we are considering their effects, not in cutting down actually existing numbers, but in checking further additions to existing numbers.

communities in the world, it has been said that ten per cent of them are not born into the country but damned into it. A very few are also blessed into it. The percentage of the 'damned' is very much higher in India and we do not think that it is an overstatement to say that ninety per cent of the people of India are living constantly in sight of the hunger-line. This acute poverty is undoubtedly the principal cause of the high mortality amongst infants as well as adults. A large number of infants die because they are ill-nourished; and in the case of grown-ups, chronic underfeeding and consequent low vitality make them an easy prey to disease. The terribly heavy mortality during the influenza epidemic of 1918-9 was due to the low power of resistance of the Indian population, itself the result of poverty.

If new lives are being brought into existence without restraint and the available means do not permit of their being maintained, this is evidence of over-population: and this is broadly the position of things in India. A high death-rate largely attributable to poverty may be looked upon as the acid test of over-population. The absence of any effective preventive checks, taken along with the great power of human fecundity, gives a high probability amounting to practical certainty that over-population exists in India both as a tendency and as a state. Taking into account the present conditions and the possibilities of advance in the near future we may say that India would be a better country for its people to live in, if they bred at a considerably slower rate.[1]

22. **Over-population and national income.**—One of the complications with which the problem of over-population is beset, is that the calculations of national income made from time to time in this country seem to show a steady increase of the income per head. If the population is increasing and if at the same time national income is also increasing at least at the same rate, how can we talk of over-population? One way out of the difficulty is boldly to question the accuracy of the various estimates, hitherto attempted, of the national income in this country. This is not so outrageous a proceeding as it might at first sight appear, because all the estimates are more or less conjectural owing to the absence of accurate

[1] In spite of the validity of this general conclusion we believe that, in view of the vast extent of India and its endless variety of climates, races and natural resources, the study of the intricate problem of over-population would be more enlightening if undertaken on the smaller scales presented by the districts and provinces; also, owing to the caste system and other peculiarities of Indian society, there is an unusually large number of non-competing groups and the examination of each separate group, caste or profession would give a more valuable insight into the nature and extent of over-population than the broad general survey which alone we have found possible to attempt here.

data. Vincent Smith cannot be suspected of any bias against British rule, and yet the most that he can say in effect is that the lot of the people has improved in some respects while it has become worse in others, and that on a balance there is some slight advantage in favour of the present times as compared with the days of Akbar.[1] As stated by Moreland 'there has been no great qualitative change'.[2] The improvement in the economic condition of the people is not so obvious a fact that he who runs may read it. Even he who is not in a hurry and takes time to scan the letters closely, as often as not reads degradation instead of improvement. The standard official retort to this is that for their persistent poverty the people themselves are to blame, because they breed much faster than can be good for them. This is, however, an explanation and not a refutation of the proposition that the condition of the people has not changed for the better, say, during the last fifty years.

Another way out of the difficulty is to admit the improvement in economic position but to hold, at the same time, that the improvement would have been much greater if the population had been smaller and if numbers had been kept down by deliberate restriction of births rather than by the operation of the various positive checks. We are inclined to hold that this view is probably in consonance with the real facts of the case.

23. **Positive and preventive checks.**—We must here warn the reader against supposing that it is a matter of indifference whether a given reduction of population is brought about by the preventive or the positive checks. What is required for the attainment of the highest standard of comfort is not merely the restriction of the population to the optimum number but also the retention of the productive efficiency to which the optimum number is related. Nature's methods are often clumsy; and quite apart from the immense human suffering which they entail, we must remember that although a great natural calamity may succeed in pruning off an excessively exuberant growth of population, it may leave the survivors demoralized and exhausted; and the consequent economic and social disorganization may be so serious that the second state of the society subjected to such an ordeal may be infinitely worse than the first, and with the decrease in numbers thus brought about may go an increase of misery and poverty. It is for this reason that from the economic point of view, preventive checks are to be preferred to positive checks as a remedy for the

[1] Vincent Smith, *Akbar the Great Moghul*, pp. 394-414.
[2] W. H. Moreland, *India at the Death of Akbar*, p. 270.

evils of over-population; in fact, we may say that positive checks seldom cure the disease; they are more apt to aggravate it.

The fact that population in India is increasing at a very much slower rate (see section 11 above) than in western countries is sometimes put forward as a complete refutation of the theory that the country is overfull of human beings. But the actual small increase does not necessarily point away from over-population. We must also prove that wealth has increased at least in the same proportion, and that the *per capita* income would have been lower with a smaller rate of increase of the population. Secondly, we must again repeat that the question of questions is whether the population is being restrained from growing faster by preventive or by positive checks. We know that the latter have so far been in almost exclusive possession of the field in India, and this, as we have explained above, makes a slow increase or even a positive decrease of population quite consistent with the deterioration of the economic position of the people.

24. **Other remedies than deliberate check of numbers.**—In advancing the view that India is over-populated we must not be supposed to hold that the country is not capable of accommodating larger numbers if and when its resources are properly developed. It may plausibly be argued that while economic development has already reached its meridian in the west, it is only near the cock-crowing or the morning star in India. Industrialization has scarcely yet begun and the point of maximum returns in industries is so distant that it may, for practical purposes, be regarded as capable of indefinite approach. A similar consideration, it may be said, holds good of development of transport, shipping, etc. Even in agriculture, the possibilities of extensive and intensive development and irrigation are still far from being exhausted. Again, apart from increase in the production of wealth, a better distribution of wealth might enable a large population to be maintained at the same pitch of welfare. Furthermore, the population itself may be more evenly distributed; the surplus population in highly congested districts may be drafted to those parts which are too sparsely populated for proper development. Lastly, emigration to other countries may be resorted to for relieving congestion.

25. **Limitations of these remedies.**—We must not, however, overestimate the possibilities of immediate relief in any of these directions. We must remember that, even with the utmost effort put forward for expediting our industrial progress, the rate of progress may not be as fast as one might desire. India has started late in the race of industrialization and her progress must be slow compared with that of western countries, owing to the numerous obstacles

that have to be overcome. There are powerful vested interests of various kinds which profit by the *status quo* and whose resistance to a change would be formidable. It is said that the present economic backwardness of the country is largely due to Government indifference. How far Government must bear the blame in this matter is a question with which we have no direct concern here. But assuming for argument's sake that Government's attitude of indifference and at times, as is alleged, even of hostility, furnished much of the explanation for the exasperatingly slow progress of industries in India, we must take this attitude, so long as it exists, as one of the factors to be reckoned with. Even with the elimination of the factor of Government indifference by the early establishment of self-government, industrial development is bound to be slow owing to financial and other obstacles.

That serious hindrances exist is an undeniable fact, and although after we have allowed for them there may still be room for optimism, it will have to be a much more chastened optimism than that generally indulged in by those who are anxious to prove that India is not over-populated.

Further, even if we ignore the existing obstacles and assume the certainty of rapid industrial advance, it is unlikely that the growth of industries will require larger numbers of men than are already available. Given conditions under which there are practically no voluntary checks on the growth of the population, population may be expected to outstrip all possible demand for it. We are assuming that nature's positive checks to population are unacceptable to humanity—a position which requires that all additions to population as they occur should be readily absorbed by the fast expanding economic resources. Such a phenomenon occurs sometimes, especially in newly settled countries, but even then lasts for only a limited period.[1] India, however, is not a new country nor are the opportunities, however optimistically viewed, comparable,

[1] Another aspect of the matter is brought out in the following quotation :— 'I am inclined to think that larger capital accumulations permitting the use of scientific inventions have been of chief importance (in bringing about increasing returns in large-scale manufacturing industries); but even if large numbers of men were shown to be necessary, the statistician should inquire whether internal and most of the external economies are not obtained through the large numbers employed in individual organizations, markets, or towns. For if this were the chief condition of increasing returns, it would be the increase in the *average* numbers employed per industrial establishment organization or locality, not the increase in the mass of workers within a whole industry that would offset diminishing return in agriculture. Increase in population might not imply, of and by itself, any increasing return in industry at all.'—P. S. Florence, op. cit., p. 15.

for example, to those of England on the eve of the Industrial Revolution. She is, therefore, really not in a position to afford the luxury of a *laissez-faire* fertility policy even for a brief spell.

26. **Scarcity of labour as an argument against over-population.**—One of the usual arguments against over-population rests on the alleged scarcity of labour felt both in agriculture and industry. This is met by pointing out that the impression of a scarcity of labour for agriculture is created by the fact that the demand for it is particularly intense during certain brief periods of the year, such as the sowing and harvesting time. It is forgotten that during the rest of the year labour is in a condition of enforced idleness. The relative scarcity during the busy agricultural season must always have been felt, though the feeling has become more vocal in recent times. Agricultural areas in the vicinity of towns have probably real grounds for complaining of a growing shortage of labour owing to the fact that part of the labour force attracted from the villages into the towns is permanently lost to it, or that all of it is not available just when it is needed for agricultural operations. This, however, does not apply to the many rural areas remote from the towns. The idea of a universal scarcity of agricultural labour is difficult to square with the commonly accepted theory that the pressure on the land is increasing and that more people are quartered on it than it can comfortably support. The Agricultural Commission give it as their considered opinion that 'in no province, except possibly in Assam, is there any indication of a serious general shortage of labour'.[1] As regards the shortage of labour in industries, this again is more apparent than real. It is not that labour is not available, but that the enormous difficulties of housing in the cities, together with the insanitary conditions generally prevailing there, act as effective deterrents, and prevent much of the potential supply of labour from being tapped. Nor is there any proper organization in existence for overcoming the conservatism and the ignorance of the people, many of whom eke out a miserable existence from the soil though there may be a reasonable prospect of their bettering themselves by permanent employment in the towns. Again, a considerable portion of the demand for labour is for *skilled* labour. The remedy would seem to lie rather in providing the requisite facilities for training labour for modern industry. Lastly, demand always means demand at a price, and the price offered to the labourer for his labour may not be sufficiently attractive. Until recently prices were rising without wages rising proportionately. The well-known tendency

[1] *Agricultural Commission Report*, par. 506.

of wages to lag behind prices is further helped in India by the power of custom, which is still not negligible, especially in rural areas. In the villages, the customary wages move slowly in response to prices, and even in the towns they are not high enough considering the rise in the cost of living and the special expensiveness of life in cities. It cannot be denied that both in agriculture and industry there is a considerable amount of maladjustment between the supply and demand for labour, but it is open to grave doubt whether the remedy is a faster increase of population. An increase in the number of labourers in itself may compel them to accept employment under conditions of work and wages which are unwelcome to them and which they are on the whole in a position to refuse at present. The situation may become easier for the employer but the labourer will suffer. A certain limited class of people may gain temporarily but the nation as a whole will be worse off.

27. **Agricultural development.**—The possibilities of agriculture, although great, are not unlimited and not altogether easy to realize. There are still undeveloped tracts waiting to be put under the plough. But, for the most part, fertile lands have already been occupied and those that remain unoccupied are comparatively less fertile and, in any case, would ordinarily require an expenditure of capital not within the means of the average cultivator. The possibilities of intensive cultivation are limited by sub-division and fragmentation, the Indian peasant's indebtedness and lack of capital resources—defects which cannot be removed all at once. Again, the adoption of the most up-to-date methods in agriculture can come only gradually and, moreover, even with the new methods, we must expect that the law of diminishing returns will come into operation sooner or later; for our experience so far does not warrant our confidently expecting a succession of epoch-making improvements in agriculture which will hold the tendency to diminishing returns at bay for an indefinite length of time.[1] The development of agriculture is bound up with irrigation and, since large portions of the country present insuperable difficulties for irrigation, they must be content to depend upon the vagaries of the

[1] 'While there was in the past unanimity in regard to the prevalence of this law (of diminishing returns), latterly certain economists have pinned their faith to the belief that science, if it cannot already do so, will in the near future be able to surmount these difficulties, or in other words, that the chemist will evolve some process by which at a relatively small outlay, the soil will be forced to give almost uniform returns. If such were ever accomplished, then indeed the law would be a thing to ignore, but the last sixty years, though prolific in discoveries, have given no indication of the birth of any revolution in agricultural practice.'—J. A. Venn, *Foundations of Agricultural Economics*, p. 377, quoted by Hamilton.

monsoon, and cannot hope for any striking improvement in their agricultural position in the near future.

28. **Better distribution of wealth.**—Some relief will no doubt come from a more rational system of the distribution of wealth. But how precisely to bring about a more rational distribution of wealth without drying up its sources, is one of the toughest problems which modern civilized nations are called upon to solve, and no satisfactory solution is yet in sight. Besides, in India, a more equal distribution is not the principal desideratum, as excessively large incomes are very exceptional. What is more urgent is an increase in the total volume of wealth and in the production *per capita*.

29. **Relief from inter-provincial migration.**[1]—As regards the possibilities of a more even distribution of population between the different provinces, apart from the exaggerated estimates about the capacity of tracts at present sparsely populated to maintain a larger population, the difficulty of shifting people from overcrowded areas to others in need of inhabitants is too great to be lightly set aside. The language, the ideas, the mode of living and the climate vary so much from province to province in India that any wholesale movement of the population between them cannot be expected. The natural love of home and familiar surroundings is further reinforced by the ignorance, conservatism and unenterprising character of the people. Admitting that there is considerable room for expansion in Burma and Assam, at the best these provinces can absorb only a small portion of the surplus population on land in the belt stretching from the Madras presidency, east and north through Bengal, Bihar and the United Provinces, which stands most in need of relief.[2]

30. **Relief from emigration.**—To expect any appreciable relief from emigration to other countries would argue an inexcusable ignorance of the recent developments in the policy of the colonies on the question of the immigration of Indians, whose labour has created new colonial values and made whole regions of the British Empire into paying assets but who, nevertheless, are now unwelcome everywhere. The attitude of the colonies together with the political helplessness of India makes it quite clear that Indians must work out their economic salvation mainly within the borders of their own country.

31. **Population and food supply.**—In all questions relating to the problem of over-population in India the position of the food

[1] See section 37 on Migration below.

[2] *Agricultural Commission Report*, par. 506.

supply in the country generally figures in a prominent manner. It is quite true that, taking the world as a whole, there must be a balance between food and population: but there need be no such balance for any particular country. England, for example, does not produce all the food she requires but finds it more profitable to exchange the manufactured products of her highly skilled population for food drawn from other countries. India, however, does not depend on foreign countries for the supply of food-stuffs, and the variation in the amount of food raised in the country has an obvious bearing on the extent of the pressure of population on the means of subsistence. If we can prove that the food supply is increasing, at least in proportion to the increase of population, we may say that there is no over-population, at any rate in its extreme form. The statistical evidence on this matter, however, is contradictory in character. K. L. Datta in his *Prices Inquiry Report* tries to make out that during 1894-1912 the area under cultivation, and especially that devoted to food-stuffs, lagged behind the population. This conclusion was not accepted by the Government of India on the ground that Datta's data were largely conjectural and uncertain. They argued that the area under cultivation and the food supply had both kept pace with the population owing, among other things, to the improved outturn consequent upon extended irrigation. Dubey, arguing in 1920, gives figures which he interprets as showing that there is a total deficit of nine to ten million tons of food or of about five million tons if we include the amount exported annually. This, while indicating a present shortage of supply and therefore a state of over-population, does not tell us whether the position is better or worse as compared with previous years. On the whole, we must declare that the evidence in connexion with the food supply is unreliable and inconclusive. On the other hand, if there is any meaning in the complaint, accepted as well-grounded by all parties, that the pressure on the land is growing, it must mean that increase in the products from the soil is less than proportionate to the increase in the population. In 1901-2 the land per unit of the agricultural population was a little over 1·28 of an acre and in 1911-12 the acreage fell to 1·24, which indicates growing pressure on the soil. Taking the whole evidence for what it is worth, we cannot either assert or deny with any degree of confidence that the supply of food-grains is expanding in proportion to the population, though on *a priori* grounds we should not be surprised if there is an actual falling-off of the supply in relation to the population.[1]

[1] See B. T. Ranadive, *The Population Problem of India*, chaps. ix and x.

32. **Increase in wealth an indirect but powerful remedy.**—The admission of over-population as a tendency and fact does not imply that all efforts at economic improvement are useless. Such an inference would be invalid and mischievous in the highest degree. Increase of wealth, such as may be expected from a more vigorous policy directed towards agricultural and industrial progress, may express itself in increase of numbers, but to some extent it may also result in raising the standard of living. A higher standard of living once attained generally increases the will and the ability to maintain it by voluntarily restricting population. Such has been the course of development in the west and we may reasonably anticipate that similar causes will produce similar effects in India. A considerable improvement in the economic condition of the people would make them realize, as nothing else will in the same degree, the necessity of bringing the increase of numbers under 'the deliberate guidance of judicious foresight' (Mill). The most promising solution of the problem of over-population, therefore, would be for the people and Government to strain every nerve and sinew to further the economic development of the country in every possible direction. If it is true that over-population is one of the causes of poverty; it is equally true that poverty, by inducing recklessness, intensifies the evil of over-population. If, therefore, the policy of Government in the past can be shown in its positive and negative aspects to have retarded economic development, they cannot escape all blame for the poverty of the people by merely pointing to the fact that the people of the country do not understand the importance of deliberate restrictions on the growth of population. The only complete defence for Government would be to show that, on their part, they have always been inspired by a single-minded devotion to the interests of the country and spared no effort to remedy the poverty of the people, and further, that their policy has all along been not only honest and energetic, but also correct and well thought out.

33. **Importance of deliberate restriction.**—At the same time, if the people themselves were made to see the necessity of checking an undue growth of numbers and making them bear a proper relation to the available resources so as to maintain a high average of well-being, this would be a welcome and highly desirable change. Those who talk of the immense unexploited resources of the country and suggest that their presence is a complete justification for people not exercising any prudential self-restraint in the matter of propagation confuse the possible with the actual. After all there is wisdom in the popular adage which asks a man to cut his coat according to his cloth. The means 'in hand'

or 'in sight' rather than remote possibilities of immensely increasing them should be taken as a guide to determine the suitable size of the population at any given time. No doubt the globe will support a very much larger population than at present if the dreams of scientists become everyday realities and the unlimited energy of the sun and the tides is effectively harnessed in the service of man; posterity may then smile at our solicitude in regard to the population problem. It would nevertheless be foolish to act as if all this were an accomplished fact. The attitude of the sceptic who denies all possibility of future development is no doubt to be deprecated. But at the same time we must be on our guard against the error of the all-too-confident dogmatist who forgets the difficulties in the way of development. Further, we must remember that the most rapid advance we can conceive would absorb only a small part of the increase in numbers which is arithmetically possible. If full vent is allowed to human fecundity it will inevitably bring into the arena all the evil forces such as wars, pestilences, famines, etc. embraced by the phrase 'positive checks'. Economic development must be regarded as a temporary relief and not as a permanent cure for the evils of over-population, and it requires at all stages to be reinforced in a greater or less degree by the practice of the 'prudential restraint which distinguishes rational human beings from rabbits'.

34. **Limitation of families: pros and cons.**—Most people readily agree that every individual should try to limit his family according to his resources, so that his children may get at least as good a chance in life as he himself. Just as seeds should not be sown too thickly if the resulting plants are not to be poor in quality, so the children in a family should not be too numerous for each to be able to enjoy reasonable opportunities for self-development. High natality generally goes with low vitality, causing a high death-rate amongst infants. The labour expended in trying to bring up children who eventually die for lack of proper care and sustenance, is so much energy wasted; and their brief career causes much useless suffering to the parents as well as to the other children that do manage to survive. From the individual point of view it is advisable to restrain oneself from bringing children into existence until one can reasonably count on being able to maintain them. And what is good for the individual is also good for society as a whole, for if children are persistently produced by large sections of people without forethought of any kind the general standard of living will inevitably be lowered.[1]

[1] Harold Cox, *The Problem of Population*, p. 118.

There are, however, people who hold that the disadvantages of restriction, on the whole, outweigh the advantages. For example, it is pointed out that children following closely upon the heels of one another get a better chance of developing character than those who are too widely spaced out and are deprived of the advantages of mutual pressure, correction and admiration. It is further said that large families have a valuable educative effect on the parents themselves in that they help the cultivation of patience, gentleness and self-denial, and make for nobility of character. Again, it is urged that the maintenance of a baby is not an expensive thing, at least in the first few years of its life, a fact constantly overlooked by champions of limited families. All these arguments contain a substratum of truth. But the fact remains that the misery and suffering in many families is directly traceable to their 'devastating torrent of children'. Caution and foresight may indeed be carried too far, as in France, but the opposite evil of recklessness is equally serious and its consequences are writ large on the face of present-day Indian society.

The mention of France leads us to another favourite argument advanced against birth-control, namely, that limitation of population may be carried to such lengths as to be a menace from the military point of view.[1] France is the classical example of this, where the state is alarmed at the refusal of the population to grow, or to grow fast enough, and efforts are being made to induce the people to raise up larger families lest Germany, the traditional enemy, with her more prolific population should wipe out France in the next inevitable war. With reference to India, however, it is easy to see that she has nothing further to desire in the way of mere numbers. More than numerical strength, what is really required for military efficiency is a high standard of physical health and intellectual alertness, discipline, organization, the most up-to-date equipment for defensive and offensive warfare and a strong unifying national consciousness.

[1] However, as Cox points out, 'unrestricted multiplication is in itself one of the most powerful causes of war as it intensifies the struggle for existence between the different nations, though it is often advocated as an effective protection from unprovoked aggression. As soon as a population grows big its leaders say, "Our people are so numerous, we must fight for more space." As soon as war has taken place, the leaders invert the appeal and say, "We must breed more people in preparation for the next war." How is this horrible see-saw to end? It cannot end unless all the nations of the world will agree to recognize that, since the overgrowth of population is a necessary cause of war, a moral duty rests upon each nation to limit its numbers to avoid conflict with its neighbours.'—*Ibid.*, p. 35.

35. **Methods of limiting population:** (*a*) *Moral restraint.*—Even amongst those who admit the desirability of limiting births there is no unanimity as regards the best means for the purpose. Some people would advocate moral restraint as the only safe remedy. But although there is a tendency to underestimate the extent to which moral restraint is actually employed by middle-class families in Europe, we must admit that it will never be adopted with sufficient generality by all classes of people to be of much use in keeping down the excessive growth of population. On the whole, we may say that preaching prolonged abstinence to married people as a cure for over-population is like suggesting the cutting out of the stomach as a cure for hunger. Both have about an equal chance of being adopted. Malthus himself fully recognized this and hence the pessimistic tone of his writings. Moreover, there appears to be a respectable body of medical opinion according to which continuous self-denial over long periods is on the whole a remedy worse than the disease, on account of its harmful reactions on the mind and body of the married couple.[1]

(*b*) *Contraceptives.*—The old methods of abortion, infanticide, etc. are rightly frowned upon by law and opinion and nobody would be so foolish as to suggest a reversion to them. Their abandonment marks a step forward in ethical standards and is a welcome sign of progress. The only alternative that remains is the use of contraceptives, and the heavy decline in birth-rates characteristic of most European countries to-day is undoubtedly due to the widespread use of artificial methods of birth-control.

The commencement of the fall in the birth-rate in western countries has synchronized in each of them in a striking manner with the beginning of birth-control propaganda. Thus in England the fall in the birth-rate coincides in a remarkable manner with the Bradlaugh trial in 1877, when Mrs. Besant and Charles Bradlaugh were prosecuted for publishing a pamphlet advocating birth-control by artificial means. Their trial attracted tremendous public interest and incidentally spread birth-control information, of which apparently large numbers of people proceeded to make practical use.[2]

The question arises as to what ought to be our attitude towards neo-Malthusianism in India. We may brush aside the common objection that it is unnatural. So is the use of clothes and cooked food and medicines and countless other things associated with

[1] For a statement of the principal objections to 'moral continence' see Leonard Darwin, *What is Eugenics?*, p. 36.

[2] See P. S. Florence, op. cit., pp. 31-2.

civilized life. We must, however, consider other more important objections, the commonest of which is that the spread of information about contraceptives will remove one of the most powerful deterrents to sexual immorality. The rejoinder, that the morality which is merely due to fear of consequences is hardly worth having, is not convincing, for prevention of irregular relations, brought about by no matter what motives, is socially desirable.[1] It may be readily admitted that among those that are tempted, there are some who are prevented from falling by the fear of detection or of producing an illegitimate child. A large number of the cases of abortion in this country are, however, prompted by the idea of concealing a crime, and the dissemination of the knowledge of contraceptives may to some extent lead to their taking the place of abortion. However that may be, it would be pertinent to ask in connexion with this discussion, what would happen to civilization if society were to act consistently on the principle of discarding everything that is liable to be misused by a section of the people. While admitting the dangers attendant upon the spread of information regarding contraceptives, it may be possible to reduce the risk by the state taking steps against a promiscuous broadcasting of such information and making it available only to those who have morally and economically valid reasons for seeking it.[2]

Indiscriminate propaganda in favour of birth-control methods may conceivably result in an increase in sexual immorality. The question at issue, however, is whether it is not worth while taking all the risks, while attempting to minimize them by judicious state control of such propaganda, in order to avoid the more serious evil of over-population.

Another objection to birth-control by the use of contraceptives is based on the consideration that it is more likely to be practised by the more prosperous and intelligent sections of the population than by the poorer who, while most in need of it, are, owing to their very poverty, the most reckless and improvident, and among whom, moreover, women occupy a lower status and have to pass

[1] Cox argues that there is no ground for the fear that the knowledge of the means to prevent conception would necessarily increase prostitution or the number of irregular relationships. On the contrary, some of these irregular relationships are due to the fact that many people are prevented from entering into the holy state of matrimony by the fear of unwanted children. The knowledge of methods of preventing children would hasten marriages and to that extent reduce the evils of promiscuity. See *The Problem of Population*, pp. 134-8.

[2] In England, Dr. Marie Stopes has established a clinic in London for giving private advice on contraceptives. There are also a few other organizations doing the same kind of work in the poorest quarters of London. See C. P. Blacker, *Birth-Control and the State*, p. 93.

through the ordeal of child-bearing often against their will. The result of this is that population increases at the wrong end of the social scale and birth-control will, therefore, lead to a progressive deterioration in the quality of the people. This view does not necessarily imply that the poor man's children are likely to be inferior in respect of innate physical and mental endowment than those of the rich man. Their excessive number however, does make it difficult to rear them so as to bring out their best qualities. Apart from poverty and the consequent spirit of recklessness, one of the reasons why the lower classes fail to profit by the new knowledge about birth-control is that very often they do not possess it, and the remedy for this would seem to be to make it more accessible to them. One of the objections to birth-control is that the comparatively harmless methods of securing it are beyond the means of the poorer classes, who therefore have recourse to admittedly injurious ways of controlling births; and that this is a matter for grave concern, since the evils that arise in this manner are far more serious than the evil of over-population. It may, however, be questioned whether any evil could well be more serious than the evil of over-population. It is also difficult to believe that the cost of bringing up a child properly could be lower than that involved in the use of birth-control devices. Again, the complaint is often heard in the west that the higher classes tend to carry control of births to socially harmful extremes, preferring a needlessly high, not to say a frivolous, standard of life, to the burden and the joy of bringing up even a moderate number of children, and it is suggested that every form of pressure and persuasion should be brought to bear on them so as to make them realize that it is morally incumbent on them to give to the state as many healthy, strong and well-educated citizens as possible. 'Our aim must be to facilitate birth-control when it is desirable on all grounds, whilst unsparingly condemning its use for merely selfish motives. A dual campaign both for and against birth-control is needed.'[1] In India, however, at the present moment all sections of people whatsoever are prone to over-multiplication rather than the reverse, and an organized effort for inducing a deliberate restriction of population would seem to be necessary.

36. **Birth-control an important question for India.**—The question of birth-control has not received the serious consideration it deserves in this country and superficial objections have too long held the field. We have tried to show that the question is at least 'worthy of deliberation', and cannot be summarily dismissed by

[1] Darwin, op. cit., p. 38.

vague generalizations about the 'unlimited possibilities' of economic development open before the country and a persistent refusal to try to understand the very elements of the problem of over-population.

Birth-control practices will undoubtedly take long to establish themselves in India owing to the extreme poverty of the people and the consequent weakness of the prudential motive. There is also an overwhelming mass of ignorant prejudice to overcome. The opinion is, however, steadily growing that the policy of letting things alone is doomed to failure.[1]

37. **Migration.—I. Movements of population within the country.**[2]—'Of all sorts of luggage,' as Adam Smith remarks, 'man is the most difficult to be transported'—an observation which is particularly applicable to India. According to the census report of 1921, the total number of persons who were born outside the district in which they were enumerated was about 30 millions, representing roughly ten per cent of the total population of India. The fact that of these 30 millions as many as 20 millions were born on the borders of the district of enumeration illustrates the essentially 'home-loving character of the Indian people, which is the result of economic and social causes, and of the immobility of the agricultural population rooted to the ground, fenced in by caste, language and social customs and filled with an innate dread of change of any kind'. The social cause chiefly affecting the Hindus is the caste system, which makes the life of a man away from his social circle very uncomfortable. For example, he is often unable to marry, eat or drink with members of other groups, and prolonged absence may expose him to the suspicion of having broken caste rules and to social ostracism on his return.

The economic hindrance to migration is to be found in the fact that the people of India are mainly dependent on one single calling, namely, agriculture. The widespread possession of, or interest in, a piece of land makes people unwilling to give up a certain (though unsatisfactory) livelihood for the risks of pioneering elsewhere. There is also the debilitating effect of chronic diseases—such as malaria, hookworm, etc.—which militates against the display of initiative and energy on the part of the population. Lastly, most

[1] 'Not only is artificial control advocated by a number of medical writers, but Indians can now boast of a Neo-Malthusian League with two Maharajahs, three High Court Judges, and four or five men very prominent in public life as its sponsors. . . . It is also significant that the Government of India sanctioned the establishment of birth control clinics in the four principal hospitals of the State.'—*India in 1930-31*, p. 153.

[2] See *Census Report* (1921), vol. I, pp. 83-9; *Census Report* (1911), vol. I, chap. iii; *Census Report* (1901), vol. I, pp. 88-95; and *Agricultural Commission Report*, pp. 581-5.

of the villagers are in the clutches of the money-lender, who presents every possible obstacle to his debtors leaving the village.

There are no legal restrictions on the inter-provincial movement of labour, except for those on the movement of labour from certain provinces to eight districts in Assam in which the tea gardens are situated. Under the Assam Labour and Emigration Act of 1901, as amended in 1908 and 1909, the provinces of Madras, Bengal, the United Provinces, Bihar and Orissa, and the Central Provinces can regulate or prohibit the migration of labourers to the tea gardens in Assam. The prohibition has been exercised in respect of some of the most densely populated areas of the United Provinces and there is, therefore, a strong case for its immediate withdrawal. Elsewhere, control is exercised over aided recruitment. The declared policy of the Government of India is to abolish all restrictions as early as possible. In the meantime the Agricultural Commission (*Report*, par. 508) recommend their reduction to a minimum, pending abolition. In spite of the general immobility of the population, however, there are certain definite streams of migration within the country which may be briefly noticed.[1]

(i) **Assam.**—Assam is very sparsely populated, and the land available for cultivation being ample, the indigenous inhabitants

[1] The *Census Report* of 1911 notes the various kinds of migration as follows:—

(i) *Casual*, or minor movements between neighbouring villages. 'The chief cause of these minor movements is the custom, almost universal amongst Hindus, whereby parents seek wives for their sons in a different village from their own, and the fact that in some parts a young wife returns to her parents for confinement and especially for the first one.'

(ii) *Temporary*, due to the migration of coolies to meet the demand for labour on new canals and lines of railway, to journeys on business and in connexion with pilgrimages, marriage ceremonies and the like.

(iii) *Periodic*, due to seasonal demand for labour; for example, the annual migration to the Sundurbans, Burma, and the wheat districts of Upper India at harvest time, and the extensive movement from Bihar and the United Provinces during the cold weather months for work on roads.

(iv) *Semi-permanent*, where the inhabitants of one place earn their livelihood in another, but maintain their connexion with their old homes, where they leave their families and to which they ultimately return. For example, many labourers in mills and factories in the big cities, clerks in Government offices and domestic servants, and also the ubiquitous Marwari trader and money-lender.

(v) *Permanent*. This type of migration is in the nature of colonization. It usually takes place when, owing to irrigation or improved communications or changed political conditions, new lands become available for occupation. Illustrations of this type of migration are extensive colonization of Lower from Upper Burma after the annexation of the latter tract and the rush from the congested districts of the Punjab to the canal colonies as soon as the irrigation works there were completed.

find it unnecessary to work for hire. Labour for the tea gardens in the province has, therefore, to be obtained from elsewhere. The cultivable waste land on the Brahmaputra valley also attracts a considerable stream of immigrants from other provinces.

The tea garden industry draws its foreign population from Bihar and Orissa, the Central Provinces, the United Provinces and Madras, while settlers in the Brahmaputra valley come principally from Eastern Bengal. A third movement of the Nepalis into Assam is mostly pastoral in character. The total volume of immigration into Assam from all sources is considerable, as can be seen from the fact that nearly a quarter of the population of the province is foreign or of foreign extraction. There is still a very large area of land in Assam available for cultivation. But the prevalence of *kala azar* and other diseases, the lack of satisfactory communications and low wages prevent a more rapid absorption from other districts than is actually taking place.

(ii) **Bengal.**—Bengal was found to have received during 1911-21 on a balance, a net addition to her population of over a million. About 65 per cent of the immigrants came from Bihar and Orissa and the rest from the United Provinces (18 per cent), Nepal (5 per cent), Assam (4 per cent), the Central Provinces (3 per cent), etc. The most important currents of immigration are (*a*) from Bihar and Orissa and the eastern districts of the United Provinces into the industrial area around Calcutta; (*b*) from the Santal Parganas into the districts of Birbhum, Malda, Dinajpur and northern Bengal; (*c*) from Nepal and Chota Nagpur into the Darjeeling and Jalpaiguri tea gardens; and (*d*) from Assam into Tripura State.

The immigration into Bengal is due to the comparatively greater fertility of the soil, the relatively greater development of industries, especially round about Calcutta, and the aversion to manual occupation which is a particularly marked characteristic of the Bengali people. Not only the manual labourers, but also the police warders in jails, peons of zamindars, etc. are for the most part recruited from other provinces. The chief feature of the internal migration in Bengal is a movement of the population of the central belt, on the one hand, towards the industrial districts around Calcutta, and on the other hand, into northern Bengal and the Assam valley.

(iii) **Bombay.**—During the inter-censal period 1911-21, the Bombay Presidency gained 489,000 persons. The noteworthy feature of the immigration into the province is the growing absorption of outsiders into the large industrial and commercial cities of Bombay, Karachi, and Sholapur, coming from Baluchistan, the North-West Frontier Province, the Punjab, the United Provinces

and Rajputana, Hyderabad (Deccan) and Madras. To quote L. J. Sedgwick, the Bombay Census Superintendent: 'There are two streams of immigrants which reach us, one from north-west India, represented by the huge area of Baluchistan, the North-West Frontier Province, the Punjab, the United Provinces and Rajputana; and the other coming from the south-east from Hyderabad and Madras. . . . The stream from the north goes to swell the proletariat of Bombay and Karachi; and the Hyderabad stream goes to the mills at Sholapur. . . .' Bombay is more advanced industrially than Bengal. But although it is not so densely populated, its soil being much poorer, there is a very much larger supply of local labour available. A comparatively smaller portion of the demand has, therefore, to be met from outside the province.

The net immigration from north-western India during 1911-21 amounted to more than 350,000 persons, of whom about a third came from the United Provinces, two-fifths from Rajputana and the rest from the Punjab, the North-West Frontier Province and Baluchistan (the immigration from Baluchistan being mainly into Sind). As regards internal migration in the province the principal feature is the influx of population into the industrial cities from all its other parts. The Deccan, being mainly an arid tract chronically subject to agricultural depression, is throwing out its superfluous numbers to the other parts of Bombay Presidency and it contributes to Bombay city the highest quota of all the divisions.

(iv) **Burma.**—Burma, like Assam, is thinly populated and possesses a large area of waste cultivable land. For the same reasons as the Assam tea gardens, the rice mills and oil mills of Burma have to draw their labour from outside, especially from Madras. Numerous coolies also cross over from Chittagong for the rice harvest in Akyab and for rice-milling, etc. in Rangoon. The total immigrant population of Burma is 707,000 persons, of whom 573,000 are Indians. Indian immigrants have increased since 1911 by 16 per cent, and the larger percentage of women among the immigrants shows that the immigrants who intend to settle down permanently in Burma are on the increase. Madras sends the largest quota of immigrants, after which come Bengal, the United Provinces and the Punjab. The Indian immigrant is now mostly engaged in urban industries and does the heavy manual work for which the Burman has no taste.

However, with the growing self-consciousness of the Burmese and the increasing economic pressure due to the growth of the indigenous population, migration to Burma is becoming more and more difficult for the people in the congested areas of British India.

II. Emigration.—There are at present about 2,282,000 Indians settled in various parts of the Empire outside India, and distributed as follows:—

Ceylon ...	... 820,000	Trinidad ...	... 126,000
British Malaya	... 660,000	British Guiana	... 125,000
Mauritius ...	... 274,000	Fiji Islands ...	... 61,000
Union of South Africa .	161,000	East Africa ...	... 55,000

The number of Indians who are living in foreign countries outside the Empire is very small. It is believed not to exceed 100,000 in all. Indian emigration has been broadly of two kinds. The first was that of unskilled labourers under indenture, as in the case of Fiji, Mauritius, Natal and the West Indies, or under some special system of recruitment such as was adopted in Ceylon and Malaya. The second is the spontaneous emigration of people belonging to the professional, commercial and artisan classes. The scope of the latter kind of emigration has been wider than that of the former and it has penetrated to places that never came under any system of assisted emigration. This applies, for example, to the self-governing dominions, with the exception of South Africa and certain crown colonies, especially of the East African territories.[1]

The majority of the emigrants work as agricultural labourers on plantations of rubber, tea, coffee, etc. Indentured labour emigration was stopped in March 1917, and as a result the volume of emigration has shrunk very considerably. The resolution of the Imperial Conference of 1921 reaffirmed the principle that each community of the British Commonwealth should enjoy complete control over the composition of its own population by restricting emigration from any of the other communities, and most of the countries within the Empire have exercised their right of regulating immigration into their borders so as to discourage, if not altogether exclude, Indian immigrants. The reasons may be political, racial, or purely economic; but the unpleasant fact must be faced that emigration as a remedy for relieving congestion at home is practically impossible so far as the Indian population is concerned.[2]

[1] See *India* (1925-6), p. 229.

[2] It is not necessary to enter into details in connexion with the various phases of the emigration policy of the Government of India. The numbers involved at the present moment are insignificant and the question cannot be regarded as in any sense vital from the point of view of easing economic conditions in this country. The Emigration Act of 1922 proclaimed *assisted* emigration of *unskilled* labour to be unlawful except for such countries and on such terms and conditions as might be specified by the Governor-General-in-Council. There is also a Standing Emigration Committee of the Indian Legislature to advise Government on all major emigration questions such as the fixation of standard wages of unskilled emigrant workmen, terms of colonization of Indian settlers, etc.

Owing to the various restrictions described above, emigration outside the limits of India has recently been unimportant. The possibilities of emigration are confined to the tropical and sub-tropical parts of the British Empire. Apart from British Malaya and Ceylon, which may be expected for some time to absorb at the most about 140,000 persons annually from India, there is a prospect of considerable emigration to British Guiana where there is still great scope for the expansion of cultivation. The present population in British Guiana is about 304,000, but the country is capable of supporting ten times that number and is peculiarly suited to being settled by Indians. Under the Emigration Act of 1922, a scheme of Indian emigration into the colony has been approved, but has not yet been brought into operation because the terms are held to be unremunerative by the planters. The Agricultural Commission strongly commend the scheme as worthy of further investigation 'for the possibility of doubling the Indian population is not to be lightly disregarded'. (*Report,* par. 510.)

38. **Eugenics.**—The human being is the most important machine in the production of wealth, and whatever improves the physique, intellect and the character of the people also adds to their economic strength and efficiency. The subject of heredity has been much studied in recent years in its bearing on the improvement of plants and animals of economic value, and important practical results have been achieved in this direction. The remark is often made that what man has been able to do for plants and domestic animals, he has never been able to do for himself. But the difficulty in the matter of studying heredity with reference to human beings and applying its laws so as to improve the race, has been that it is impossible within wide limits to experiment with human beings or to treat them like plants and animals in the matter of mating.

It is nevertheless of the utmost importance for the welfare of the race that its perpetuation should depend, as far as possible, on those individuals who are best suited to serve the needs of the community. This has become all the more urgent because the tendency of modern civilization is to eliminate some of those factors which make for the destruction of the physically and mentally unfit. Under primitive conditions the weaklings had small chance of surviving in the struggle for existence or of propagating their kind. Those who were exceptionally courageous and resourceful would for instance get more wives than the weaker members and would, therefore, be more prolific. In modern times, however, owing to improved sanitation and progress in medicine and surgery, together with the growth of the humanitarian spirit, natural selection has

ceased to operate.[1] There is no effective ban on the physically unfit, the mentally unsound and the morally degenerate carrying in them the seeds of hereditary disease, marrying and perpetuating their stock. Owing to the difficulties connected with scientific observation and experiment, the science of eugenics has been advancing very slowly, and our knowledge of the laws of heredity in their application to the inheritance of human characters is still very meagre. All we can do at present is to draw certain deductions regarding human beings from the rules which the animal-breeder finds it profitable to observe. Any practical scheme of eugenics would have a positive and a negative aspect. That is, it would aim at encouraging the reproduction of the specially fit and discouraging or preventing the reproduction of the specially unfit. In India, certain rules of eugenic value are followed in arranging marriages. For example, marriage is prohibited within certain degrees of relationship. Again, the castes are divided into certain exogamous sections or *gotras,* the members of which are regarded as so closely related that they are not permitted to intermarry. It has been questioned, however, whether this particular taboo has any scientific basis.[2] On the other hand, there are certain practices in India which must cause the deterioration of the race. Constant inbreeding amongst the members of 'microscopic endogamous subcastes'[3] is one of these. On the whole, India stands as much in need of enlightenment on the laws of human heredity as any other country. It is indeed futile to hope that even with the fullest enlightenment spontaneous action will secure the propagation of the most desirable stocks. At the same time, even in the most advanced western states, legislative schemes of positive eugenics are at present out of the question, because they will be resented as unduly infringing on the liberty of the individual. However, some countries are already making tentative experiment in eugenic legislation. Thus in the United States of America, the State of Nebraska forbids the marriage of anyone suffering from venereal disease. The State

[1] It must, however, be remarked that natural selection under primitive conditions did not necessarily bring about the survival of the best. As has been well said, natural selection often preferred muscle to brain and low cunning to artistic genius. Again, the advance in medicine and sanitation undoubtedly increases the economic efficiency of the community as a whole. All the same, the proposition is incontestable that, under modern conditions, many more unfit people are enabled to survive and breed than would have been possible under primitive conditions.

[2] S. V. Karandikar in his scholarly book, *Hindu Exogamy,* pleads for a loosening of the extravagant and unmeaning exogamous restrictions which Hindu society has imposed upon itself.

[3] Karandikar, op. cit., p. 288.

of Connecticut forbids the marriage of epileptic or feeble-minded persons. Montana sterilizes its idiots and epileptics by an operation which leaves the sexual function undisturbed while destroying the power of reproduction. It has been suggested that sterilization may be resorted to in the case of hardened criminals and other undesirable types.[1] In most countries, however, in the present state of public opinion and sentiment, it is not possible to go very far in the direction of popular eugenic legislation. But the state may do something towards educating public opinion on this important matter by spreading information and offering advice. The city of Berlin has a municipal advisory bureau for candidates for matrimony, where advice given is based mainly on medical considerations, but the psychological factors have also a great part. It is unlikely that such official and semi-official eugenics will be able to do much good in India until the people are educated up to the level of realizing the importance of practical eugenics.

39. **Public health and sanitation.**—The importance of public health and sanitation in maintaining the economic efficiency of the people cannot be overrated. The prodigious mortality in India due to such scourges as plague and influenza, malaria, smallpox, relapsing fever, etc., is economically disastrous on account of the dislocation in the machinery of wealth production which it causes. In England, during the last seventy years, enormous strides have been taken in the improvement of public health, and as a result, typhus, cholera, scarlet fever, and diphtheria have been practically wiped out. In India, the listlessness, lassitude and apathy characteristic of the people are largely the result of diseases like hookworm and malaria, 'the sinister performers in the grim tragedy of the endemic diseases played out upon a stage upon which no curtain ever falls' (Ronaldshay). These diseases seize and devitalize many more people than they actually kill, and it is impossible to over-estimate the economic advantage that would accrue from stamping them out. Systematic and widespread instruction of the people in health and hygiene is necessary, and the Departments of Public Health need to be further strengthened. The initial expense would be heavy but it would be well worth while, as the results in higher economic efficiency, although not immediate, would be great and certain.[2]

[1] See Blacker, op. cit., pp. 67-9.

[2] 'Public expenditure on national health is like expenditure on a life-boat or a fire-engine; even more, it is like a long-term investment. It yields the interest with absolute certainty, a hundred-fold—but only in the course of years and sometimes in the course of generations. Sometimes we hear the idle question, "What is the use of all our expenditure on health?" It is often

40. **Education.**—In order to develop the economic efficiency of a people to the fullest extent, general knowledge and intelligence as well as special training in particular vocations is necessary. In India, both as regards general and technical education, most of the work still remains to be done. But this is a topic to which we shall have to revert later on in connexion with agricultural and industrial progress.

41. **Racial aptitudes.**—Economic progress is also a matter of innate racial capacity, and certain races have shown no aptitude for it. It is, however, a most dangerous thing to indulge in facile generalizations about the superiority of some races and the inferiority of others. Many of these generalizations are no more than summaries of existing facts. Because the Indian people happen to be backward economically and culturally at the present time, some writers pretend that they are inherently incapable of scaling the heights of civilization attained by the European nations. It is thus, we imagine, that an Indian observer might have generalized about the inhabitants of the British Isles who were tattooed savages roaming about in the forests when the Indian himself could boast of a mighty civilization. If it had been suggested to him that the descendants of these savages were destined to rule over India, he would have greeted the suggestion with pardonable contempt and incredulity. The miracle has nevertheless happened and it is now the turn of the Indian to prove his claim to be considered capable of civilization. The course of history is strewn with fatuous judgments on one people by another. Towards the end of the eighteenth century, western Europe looked upon the Russians as semi-savages, and D'Alembert and Diderot could not think it possible that they should ever be civilized up to the European standard. The negroes are still generally regarded as incapable of ever attaining equality with white races and, as regards Indians, the view has sometimes been expressed that, like all brown races, they are incapable of continuous progress, being subject to 'some strange fiat of arrest'[1] which condemns them to an eternal reproduction of ideas and to long periods of immobility succeeding brief intervals of advance. Such views stand condemned if only because they ignore the obvious fact that the Indian people do not constitute one single race but that various racial strains have entered into their composition. Further, it is a matter of common knowledge that it

asked by persons who do not reflect that their welcome presence among us alive, alert, and competent is itself the answer.'—*Annual Report of the Chief Medical Officer of the Ministry of Health* (England) 1921.

[1] Meredith Townsend, *Asia and Europe*, p. 9.

was the great civilization and wealth of India that attracted foreign adventurers to it. Even in their present fallen estate, competent observers have been able to discern elements of greatness in the people of India and have admitted that, given a fair chance, Indian brains are no whit inferior to European brains.[1] Nor is it true that they are averse to or incapable of applying them to the task of economic organization and advancement. There is therefore no need for the Indian people to allow themselves to be borne down by any overwhelming consciousness of hopeless and irremediable inferiority as regards aptitude for economic progress.

[1] General Smuts in an address he delivered in Johannesburg on 26 August 1919, used the following words, 'I do not look down on Indians. I look up to them. . . . There have been Indians who have been amongst the greatest men in the history of the world. There have been Indians who have been amongst the greatest leaders of the human race, whose shoes I am unworthy to untie.'

CHAPTER IV

SOCIAL AND RELIGIOUS INSTITUTIONS

1. **Influence of social and religious institutions on economic activity.**—Social and religious institutions and ideals exercise a profound influence on economic activity, and it will be our task in this chapter to describe the institutional basis of economic life in India and consider how far the more important of these institutions help or hinder the economic progress of the people. That the religious and social background of economic life in India requires a special study need not be laboured. For it is evident that the various aspects of Indian economic life have received their peculiar shape and mould from the characteristic social and religious institutions of the land.[1]

2. **The caste system.**—The caste system constitutes the most noteworthy feature of Indian society and we may begin our discussion of it with the standard definition of caste.

'A caste has been defined as a 'collection of families or groups of families bearing a common name which usually denotes or is associated with a specific occupation; claiming common descent from a mythical ancestor, human or divine; professing to follow the same calling; and regarded by those who are competent to give an opinion as forming a single homogeneous community.' A caste is almost invariably endogamous in the sense that a member of the large circle denoted by the common name may not marry outside that circle; but within this circle there are usually a number of smaller circles, each of which is also endogamous. Thus, it is not enough to say that a Brahmin at the present day cannot marry any woman who is not a Brahmin; his wife must also belong to the same endogamous division of the Brahmin caste.'[2]

The caste system in India must be distinguished from the numerous social gradations that exist among all nations. These latter are not divided into so many watertight compartments, and there is no religious taboo to prevent the passage of an individual from one

[1] 'The sociological life of the people has determined in India systems of land tenure, the organization of the village life . . . : and the joint family and the caste system have regulated from times immemorial the rights of the individual as a member of a family, as a member of society and as a member of the guild or trade to which he was attached by birth.'—H. S. Chatterji, *Indian Economics*, p. 80.

[2] *Imperial Gazetteer of India*, vol. I, p. 311.

social stratum to another. There are also no restrictions as regards marriage, and everybody is at liberty to choose whatever profession or occupation he likes. Under the caste system, on the other hand, Hindu society is divided into an immense number of entirely separate groups, small and large, the conduct of whose members is restricted by an elaborate code of caste rules. They are prohibited from intermarrying and commonly also from inter-dining with members of the other groups, especially those supposed to be inferior in status. In India, 'birth determines irrevocably the whole course of a man's social and domestic relations and he must through life eat, drink, dress, marry, and give in marriage in accordance with the usages into which he was born.'[1]

3. **Three main types of castes.**—Castes are divided into three main types, the functional, the racial and the sectarian. The most important of these are the functional castes, representing the various occupations that were followed in earlier times before the introduction of machinery.[2] Instances of the functional castes are the Brahmin or the priestly caste, and the trading or Bania castes which include, amongst others, the Khatri of the Punjab, the Agarwal and Oswal of Rajputana. It would be tiresome to enumerate all the functional castes. They include artisans such as weavers, carpenters, potters and goldsmiths; village servants such as cowherds, barbers and washermen; and various other occupations such as astrologers, oil-pressers, cattle-breeders and musicians. The racial castes are numerous in all parts of India. In Bengal, we have the Rajbansi, Chandal, etc.; in the United Provinces and Bihar the Bhar, Chero, etc.; in Rajputana and the Punjab the Jat, Jujar and Meo; in Bombay the Koli and Mahar; and in Madras the Nayar, Paraiyan, etc. The sectarian castes are those that have originated from religious sects, such as the Lingayat caste in

[1] *Imperial Gazetteer of India,* vol. I, p. 323. Dr. Ghurye mentions the following salient features of the caste system in India: (1) Segmental Division of Society, (2) Hierarchy, (3) Restrictions on feeding and social intercourse, (4) Civil and Religious disabilities and privileges of the different sections, (5) Lack of choice of occupation, and (6) Restrictions on marriage—*Caste and Race in India,* pp. 2-18.

[2] 'Community of occupation can scarcely be regarded as the sole basis of the caste system. Because, as Sénart observes, if this were so, the institution would have shown less tendency towards sub-division and dislocation; the factor making for unification in the first instance would have maintained the cohesion. If the community of occupation had been the sole or even the principal basis of the caste system we should have had all persons following the same occupation constituting only one caste. But as we know this is not the case. For instance, all weavers even in the same region do not always belong to the same caste.'—Risley, op. cit., pp. 269-70.

Bombay, founded by a religious leader who denied the supremacy of the Brahmins.[1]

4. **Origin of the caste system.**—Leaving aside all legendary and fanciful speculations and taking account only of modern attempts at an explanation of the caste system on a rational basis, we may refer to James Mill's theory, according to which the original division of society into castes must have been the work of some inspired individual who foresaw the advantages of a systematic division of labour. James Mill accounts for the subordination of one caste to another by superstitious terror on the part of the weaker members of the community and the designing lust for power characteristic of the priestly caste, which succeeded in securing for itself the position of the premier caste to which all the others owed veneration and respect. Next to calamities sent by Heaven, the ravages of war which the priestly class pretended to be able to avert are to be dreaded most, and so the military class occupied the next place of importance after the Brahmins, and so on.[2]

According to Sénart's theory 'caste is the normal development of ancient Aryan institutions, which assumed this form in the struggle to adapt themselves to the conditions with which they came into contact in India'. In developing this proposition he relies greatly upon the general parallelism that may be traced between the social organization of the Hindus and that of the Greeks and Romans in the earlier stages of their national development, the difference being that the distinctions in India became rigid and stereotyped, while this did not happen in Europe.

'Distribution over a wide area, tending to multiply groups; contact with the aborigines encouraging pride of blood; the idea of ceremonial purity, leading to the employment of the indigenous races in occupations involving manual labour, while the higher pursuits were reserved for the Aryans; the influence of the doctrine of metempsychosis, which assigns to every man a definite status determined by the inexorable law of *karma;* the absence of any political power to draw the scattered groups together; and the authority which the Brahminical system gradually acquired—these seem to be the main factors of M. Sénart's theory of caste.'[3]

[1] See *Encyclopædia of Religion and Ethics,* vol. III, p. 231.

[2] See *Encyclopædia Britannica,* eleventh edition, article on Caste.

[3] Risley, op. cit., p. 267. As an explanation of the recent development of the caste system Mr. G. S. Ghurye gives some prominence to 'the lack of rigid unitary control of the State, the unwillingness of the rulers to enforce a uniform standard of law and custom, their readiness to recognize the varying customs of different groups as valid . . . helped the fissiparous tendency of groups and fostered the spirit of solidarity and community of feeling in every group.' Mr. Ghurye also thinks that 'the multiplicity of the groups and the thoroughness

5. **The rigidity of the caste system.**—The problem of the origin of caste and its later evolution is in reality insoluble from the nature of the case and the various theories must all be pronounced more or less inadequate as they fail to explain fully what requires particular explanation, namely, the unparalleled rigidity of the caste system in India—a rigidity which was further enhanced when the system crystallized in opposition to the successive waves of the Mohammedan invasions between the twelfth and the eighteenth centuries and thus reacted in a most unexpected manner to the essentially democratic influences of Islam. There is reason to believe that in the early stages of its development the caste system was fluid in character. At least so far as the first three castes were concerned, they seem to have been based initially on the principle of social selection and division of labour rather than on that of heredity or birth, and permitted intermarriage and passage from one group to another. How exactly this original fluidity was lost must for ever remain a question incapable of precise determination. It may be that the original taint of inferiority attaching to the Sudra caste, either because it represented a conquered race of aborigines (Dasyus) or for some other reason, acted as a leaven which in course of time permeated the whole social system. It is also possible that the great importance attached to the proper performance of ritual and sacrifice amongst the Aryans concentrated power into the hands of the group which specialized in the performance of religious functions, enabling it to use this power for its own social aggrandizement. It may also be that various other factors referred to by M. Sénart as noted above had their due share in bringing about the final result. We should further be tempted to accept the suggestion that a settled state of society favoured the growth of caste by ensuring the continuity of functions through several generations and thus fixing the principle of inheritance and heredity,[1] but for the difficulty that similar stationary conditions prevailed throughout Europe before the Industrial Revolution without bringing about a social organization in any way comparable in its rigidity to the caste system. For a similar reason we are constrained to reject as inadequate the contention that the undeveloped state of communications, together with the ignorance of the masses, by making social intercourse difficult confirmed the caste organization.[2] At best most of these explanations suggest how the movement

of the whole system are due to the habit of the Hindu mind to create categories and to carry things to their logical end which characterized their literature, philosophy, and religious creeds.'—G. S. Ghurye, *Caste and Race in India*, pp. 147-8.

[1] See Wadia and Joshi, op. cit., p. 124. [2] Ibid., pp. 124-5.

towards rigidity, when once started, was helped forward. They do not tell us how it originated. On the whole, therefore, the question of the origin and development of the caste system must be given up as 'an insoluble and unprofitable conundrum'.

6. **Merits and achievements of the caste system.**—Passing on to the merits of the caste system, especially from the economic standpoint, while no sensible person will think of defending the caste system in its present form, we must admit that a quest for some rational principle at the root of what appears an essentially irrational and chaotic arrangement is not altogether hopeless. One of the animating principles which may be said to have once rationalized the caste system is that of division of labour, which makes for economic strength and efficiency. At one time or another, professions in most countries were hereditary in practice, if not in theory, and there were obvious advantages attaching to the hereditary system, under which the son naturally imbibed the secrets of the family occupation and acquired proficiency in it with the minimum of effort in the congenial atmosphere of home, and under the affectionate care of the father. This was especially important when there was no organized system of public instruction and when a high premium was placed on manual dexterity. The system gave the father help at a cheap rate and afforded the easiest introduction to life for the son, who often inherited the custom and the reputation of his father as a craftsman as the most important part of his legacy at the latter's death. The value of transmitted skill in the crafts was very great and the hereditary principle helped this transmission. So long as this principle was worked in a natural and rational manner it could not be open to any objection. This, however, ceased to be the case as soon as the adoption of a new profession became not merely unusual but wrong and punishable.[1]

The functional castes have often been compared with the mediæval guilds in Europe and have been regarded as beneficent agencies fostering the recognition of mutual bonds created by common pursuits. Like the old trade guilds of Europe, they served the purpose of mutual benefit societies for their members by training apprentices, by promoting good feeling among the members, by providing courts of arbitration to settle disputes, by regulating wages and profits of their members and by helping them occasionally in distress.[2] 'The caste organization is to the Hindu his club, his trade union, his benefit society, and his philanthropic society.'[3] It must, however, be noticed that the

[1] See *Encyclopædia Britannica,* loc. cit.
[2] See Chatterji, op. cit., p. 92.
[3] S. Low, *Vision of India,* p. 263.

European guilds differed from the caste in certain important particulars. In the first place, the guilds were voluntary associations which the castes are not. Secondly, although in the guilds the sons of existing members enjoyed great advantages as apprentices, qualified strangers were admitted, at any rate before the guilds degenerated into close monopolistic corporations. Moreover, intermarriage was permitted and was purely a matter of social feeling. In India, the admission into a particular caste has been entirely a matter of heredity, and intermarriage is strictly prohibited. Again, in the case of European guilds, 'the common occupation was a real tie, a source of strength in the long run against the nobles and kings, not a symbol of disunion and weakness like caste in India.' Some writers have held that 'like the guilds of the Middle Ages in Europe the castes may have developed and fostered art and industry' and that 'the system may have preserved the wonderful mechanical skill and dexterity of the artisan classes in the face of foreign competition.'[1] While there is undoubtedly some truth in this view, it is also quite possible that the lack of adaptability and general unprogressiveness which characterize the Indian crafts at the present day may be due to the trammels of the caste system, which must have tended to check natural advance.[2]

In defence of the caste system it may be granted that in the days of the Aryan invasion it probably helped the collaboration of races and co-operation of cultures.[3]

Probably it also enabled Hindu society to face the shocks of political invasion without itself suffering dissolution. Further, the caste system may be admitted to have led to the fundamental stability and contentment of Indian society. Till recently, career and occupation were settled in India entirely by the birth of a person. This saved him from the worry and the restlessness incident in modern society to the choice of an occupation. The

[1] See Wadia and Joshi, op. cit., p. 126.

[2] 'A guild may expand and develop; it gives free play to artistic inspiration; and it was the union of the guilds that gave birth to the free cities of the Middle Ages. A caste is an organism of a lower type; it grows by fission, and each step in its growth detracts from its power to advance or even to preserve the art which it professes to practise.'—Risley, op. cit., p. 270.

[3] 'The system of caste is in reality neither Aryan nor Dravidian but was introduced to meet the needs of the time when the different racial types had to live together in amity. The only way of conserving the culture of a race which ran the great risk of being absorbed by the superstitions of the large numbers of native inhabitants was to pin down rigidly by iron bonds the existing differences of culture and race. Unfortunately, this device to prevent the social organization from decay and death ultimately prevented it from growing.'—S. Radhakrishnan, *Indian Philosophy*, vol. I, pp. 112-3.

occupation being fixed for a person at his birth, he was protected from 'the canker of social jealousy and unfulfilled aspirations'.

7. **Caste system indefensible in its present form.**—All that can be said in favour of the caste system, however, applies only to the time when it had not assumed its modern chaotic aspect. The caste system in its present development deserves only unqualified denunciation. It is one of the greatest drags on progress in every direction which the perverted ingenuity of man has devised for his own undoing. Whatever its initial merits it has at present degenerated into a vast engine of oppression and intolerance and a malignant force making for social and political disunity and weakness.[1] If it is fair to describe Indian nationality at the present moment as a crazy quilt of patches with no warm sense of unity binding its different parts, this is to no small extent due to the operation of the caste system. In India the caste system has prevented the evolution of a strong nationality, which has been promoted elsewhere by a process of unrestricted crossing between the different races inhabiting a common territory. It is a great political handicap under which the Indian people are labouring at the present moment and it has often been a source of political weakness in the past. For example, there is much force in Professor Jadunath Sarkar's contention that the downfall of the Maratha empire was largely due to the unhealthy development of the caste spirit. We range ourselves with those who believe that it is impossible for the Indian people to realize their economic destiny to the full without political emancipation, and the caste system undoubtedly acts as a great obstacle to the attainment of political swaraj.

8. **Endogamy and racial degeneration.**—One of the points urged in favour of the caste system is that it tends to preserve the purity of certain superior racial stocks and that the Hindus are not the only people who have adopted elaborate devices to maintain this purity. But nowhere else is to be found the strict adherence to the principle of endogamy peculiar to the Indian caste system, which leads to constant inbreeding and ultimately to the deterioration of the superior stocks. Moreover, while in some castes there is a great excess of males and in others a great excess of females, the caste

[1] 'The population of a district or a town is a collection of different nationalities, almost different species, of mankind that will not eat or drink or intermarry with one another. It is hardly too much to say that by the caste system and the influence of British administration generally, see Ghurye, mankind, which in the physical relations of life have as little in common as the inmates of a zoological garden.'—Bampfylde Fuller, op. cit. This is rather a heightened way of putting the matter, but there is no doubt that the extraordinary heterogeneity of the Indian population is mainly due to the caste system.

system prevents the attainment of sexual parity, as the deficiency in one caste cannot be remedied by the superabundance in another. This is in some measure responsible for the social evil of heavy dowries and the persistence, in certain parts like the Punjab, of the practice of infanticide.

9. **Caste prevents correspondence between aptitude and function.**—One of the most serious disadvantages of the caste system is that it prevents that close correspondence between inborn capacity and industrial function which is such a fundamental element in economic progress and welfare. 'The moment you divide your men into watertight compartments on the mere accident of birth irrespective of their temperament and qualifications and at the same time refuse them their birthright to develop their natural capacities and faculties to the highest possible limit, you deny your nation all the advantages that otherwise would have added to the store of national wealth and well-being. We do not know how much harm is being done to the economic activity of the people, by putting men in the wrong places, denying as it does equal opportunities to all.'[1]

10. **Immobility of capital and labour.**—Another great drawback is that the caste system prevents free mobility of capital and labour. Mobility of labour is hindered by making difficult a change of occupations or of place. As under the old system of handicrafts the artisan uses his own capital, immobility of labour necessarily implies immobility of capital as well. Furthermore, the system leads to the formation of rigid non-competitive groups, leading to the overcrowding of certain occupations and an undue advantage being given to others that lie strongly entrenched behind the caste walls artificially protecting them from external competition.

11. **Caste a hindrance to large-scale enterprise.**—The caste system impedes the progress of large-scale enterprise in various ways. In the first place, there is a lack of speedy adjustment between demand for and supply of a particular kind of labour. In the second place, the system militates against the minute sub-division of labour characteristic of modern large-scale production. Besides, owing to the caste system it is difficult to bring together intellect, manual labour and capital, which are often isolated from each other, forming separate castes.[2] Then again, consumption becomes localized and sectarian, as every caste distinguishes itself from

[1] S. V. Kethar, *Indian Economics.*

[2] The failure of early joint-stock banking in India has been attributed, *inter alia,* to the fact that one of the helps to success under conditions prevailing in India was often lacking, namely, that a bank should consist, if possible, of men of the same caste to ensure harmonious working.

every other in its mode of living by many differences of food, apparel, utensils, etc. A very large variety of commodities has, therefore, to be produced, but each single commodity on a small scale.[1] The result is that though the country is large, the scale of production tends to be small, making economies of large-scale production difficult of realization. Another minor point is that improvement in the economic conditions of the socially lower classes is not always reflected in a better standard of life, there being no chance of the lower classes being admitted into the fold of the higher classes and thus by force of example adopting the superior standard of the latter.[2]

12. **Caste and dignity of labour.**—The caste system produces amongst the higher castes a disinclination towards certain occupations and forms of labour normally followed by the lower classes, and thus often prevents them from improving their economic position and intensifies the evil resulting from the overcrowding of certain so-called genteel professions. It is true that in Europe people have no illusions about the dignity of labour, the tendency being not towards an apotheosis of work but rather towards its reduction and more even distribution. At the same time, everybody feels entirely at liberty to follow what occupation he likes in order to advance his material welfare and, on the whole, no form of honest labour is regarded as degrading in itself and there is no such thing as a man losing his caste and incurring social obloquy because he chooses to follow some other than the ancestral occupation. This promotes mobility of labour and capital and makes for economic strength. Another loss entailed by the caste system comes from the existence of caste prejudices against the use of certain methods of improvement in agricultural and industrial production. The objection to the use of bone, fish and night-soil as manure for agricultural land entertained by many castes is an instance in point.

13. **Caste antagonistic to principle of equality.**—The caste system is a negation of the beneficial principle of equality and injures the higher as well as the lower castes. It breeds in the former a false and distorted sense of superiority and in the latter a mental attitude fatal to the development of self-respect. An extreme example of this is offered by the depressed and the untouchable classes, who are subjected to unheard-of humiliation and to many disabilities not only social but also economic. The unfortunate victim of this system 'is constantly a loser in ordinary commercial operations

[1] This contention, it must be admitted, loses much of its force when, as in the case of some castes, the membership runs into millions.

[2] Cf. B. G. Bhatnagar, *Basis of Indian Economy.*

through his inability to enter a shop or even to pass through streets where shopkeepers dwell. Social ostracism, so degrading, persisting through immemorial centuries, has naturally constituted a most serious obstacle to manliness, independence and capacity towards self-help.'[1]

14. **Influence of western civilization on caste.**[2]—The influence of western thought and the introduction of so much of the modern machinery of civilization (e.g. railways) is tending in some measure to break down the barriers of caste. Owing to the linking up of the village with the outside world and the growth of trade and modern industry, an increasing number of people have begun to find it advantageous to give up their old traditional occupations and seek employment in the new mills, mines and workshops. Members of the higher castes are being driven by the stress of economic circumstances to follow professions hitherto assigned exclusively to classes lower in the social scale. Many Brahmins, for instance, are setting up as tailors, traders, shopkeepers, etc. Vocation is, therefore, no longer a sure index of caste. The exigencies of railway travel again have led to the relaxation of certain taboos on food, drink and personal contact—a process helped by western education with its levelling tendencies.[3]

Western education and culture, university and college life where the low caste man rubs shoulders with the high caste man, the

[1] *Moral and Material Progress Report* (1923).

[2] See *Encyclopædia of Religion and Ethics,* loc. cit.

[3] '. . . the rules about the diet and contact with other castes rest upon a metaphysical theory of ceremonial pollution which admits of many exceptions. Ever since the time of Manu it has been recognized that the devout traveller, when in danger of starvation, must pocket his caste scruples and satisfy his hunger as best he can. In modern times, and especially since the introduction of railways, this comfortable doctrine has been developed and elaborated by Brahminical casuistry. It has long been held, for example, that sweetmeats, a generic and elastic term, which includes all the promiscuous messes sold on the railway platforms, may be taken from almost anybody. Nice inquiries about the caste of itinerant vendors of sweetstuffs cannot be prosecuted from the window of a third class carriage during a short stoppage, and a modern proverb sums up the position in the practical query, "You have eaten the food he gave you, why ask about his caste?" On the same principle the wise man finds it convenient to forget that ice was once water, that soda water, before it found its way into a cunningly contrived bottle, owned the same humble origin and did not necessarily come straight from the Ganges; that certain essences and extracts used for medical purposes bear an ascertainable relation to beef, and that imported biscuits must have passed in their making through the hands of all sorts of casteless folk. Nor is he so indiscreet as to inquire at how many paces' distance his neighbour can convey pollution, when he must in any case rub shoulders with him in the railway carriage for twelve hours on end.'—Risley, op. cit., pp. 279-80.

growth of large towns, the influence of the ruling race, the development of a spirit of scepticism, are all undermining the spirit of caste exclusion. While reducing amongst the higher classes the inclination to insist on their privileges, they are making the lower classes less disposed to admit without question the superior status of the higher castes. Again, there is now only one law applicable without distinction to high and low,[1] and the State no longer encourages the pretensions of the higher classes, nor does it favour their admission to the superior posts in Government service.[2] On the contrary, appointments are now preferably given to the lower castes and a sort of inverted caste system is being introduced. The lower castes are becoming more self-conscious and alive to the necessity of removing their old disabilities by concerted communal action. This tendency has manifested itself even in the lowest of the low castes like the Mahars, who are now making organized efforts to assert their rights. The Hindu-Moslem tension again, is making even conservative Hindus more amenable to the influence of ideas of social reform and social equality. The very existence of the Hindus as a community, it is felt, depends upon their putting their house in order, which means, among other things, that the caste system must go or at any rate must be altered beyond recognition. Various Hindu political leaders have started a crusade against the caste system and Mahatma Gandhi has initiated a movement particularly directed towards the removal of the curse of untouchability.

15. **Vitality of the caste system.**—In spite of all this, however, it would be a mistake to suppose that the caste system is moribund. Unfortunately, it still holds its sway in practically unabated strength. The hold of caste is so strong on the Indian mind that it has even affected communities like the Mohammedans whose religion places such strong emphasis on the complete equality amongst the followers of Islam. Recent events would seem to have, if anything, intensified some of the evils of the caste system. More especially the new reforms, however beneficent in other ways, have assuredly tended to increase the bitterness and ill-feeling between the various communities by leading to a scramble for political power. We have referred above to the general awakening among the lower castes, and although this is a welcome development in many ways, in practice it is often seen that devotion to one's own caste means a fanatical hatred of the superior castes, and much energy is thus

[1] Cf. G. S. Ghurye, op. cit., pp. 150-3.

[2] Regarding the varying attitude of the British Government towards the caste system and the influence of British administration generally, see Ghurye, op. cit., pp. 158-64.

being wasted in feeding fat the ancient grudge against the higher castes. The new rights conferred on the people by the reforms are not infrequently misused to foster narrow sectional interests to the neglect of the wider national interests; and the various castes with their improved organization and strengthened self-consciousness are made to serve as a ready-made system of standing political caucuses. While the different castes are giving free vent to their grievances against the castes higher up, they are generally not prepared to treat on terms of perfect equality the castes lower down than themselves in the social scale. Like many levellers they wish to level down as far as themselves, but they cannot bear levelling up to themselves. Brahminism is, indeed, everywhere on the defensive, but the spirit of Brahminism still persists and has permeated the lower castes.

16. **Remedy for the evils of the caste system.**—When one thinks of the manifold evils of the caste system, one is tempted to sigh for some powerful beneficent despot who would shatter to bits the present social structure and refashion it on more sensible lines. But there is no prospect of a despot appearing and it is doubtful whether any despot would ever command the colossal power that would be required for putting through the Herculean task of demolishing the caste system. A social revolution as a destroyer of the Indian caste system would have to be on a vast scale—much vaster, for example, than the French Revolution, and possess far greater transforming energy. But a revolution of this character is scarcely possible. There is no single caste sufficiently powerful to lead it and there is no single enemy to fight. Every caste would be opposed to every caste above it. It would be a case of a war waged by a non-existent army against an enemy who is nowhere because he is everywhere. We must thus come to the prosaic and commonplace conclusion that it is necessary to wait for the progress of education and the spread of general enlightenment gradually to disintegrate the caste system so as to make it innocuous. We may add that the enlightenment must spread especially to the female sex, whose ignorance and conservatism make them so tenacious of the old restrictions and observances. Similarly, it is of the greatest importance that it should penetrate into the villages where, in a predominantly rural country like India, the most serious opposition to reform will have to be met.[1]

17. **The joint family system.**—Another characteristic feature which may be regarded as the normal condition of Hindu society is

[1] For an interesting discussion of the various methods of abolishing the caste system in India the reader is referred to Dr. G. S. Ghurye, *Caste and Race in India*, pp. 182-8.

the joint and undivided family. In the west, the family generally consists of wife, husband and the minor children. In India, however, there may be living together at any given time perhaps three generations with several collaterals, constituting a single household. An undivided Hindu family is ordinarily joint, not only as regards property, but also as regards food and worship. The institution of the joint family is the basis of Hindu law as regards marriage, adoption, maintenance, and especially the laws of inheritance and succession.

18. **The origin of the joint family.**—The origin of the joint family is generally attributed by economists to the advance of civilization from the pastoral to the agricultural and industrial stages of economic development. 'Where the hunting and root-grubbing stage was supplanted by developed agriculture, the labour of man in tilling the soil, constructing the house and maintaining the patrimony became of signal importance. The male is now the chief factor in the economic process, and we accordingly find the patriarchal family.'[1] The economic causes are reinforced by a strong sense of kinship and a religion emphasizing ancestor-worship, and the institution thus becomes a complex socio-economic organization designed to secure the spiritual and economic welfare of the large family groups of which society comes to be composed. The joint family patriarchal organization of India, which became practically universal throughout the country after the Aryan occupation, bears a close resemblance to that of the ancient Greeks and Romans, *patria potestas* having its counterpart in India in the supreme authority with which the eldest male member of the family is invested in the conduct of all the affairs of the family. He may be regarded as a sort of trustee administering the property of the family and regulating its affairs for the general material and spiritual welfare of its members, and he is empowered to take any course of action calculated to achieve this end. The women of the household have a separate female head with corresponding authority in matters of internal domestic economy and often not without considerable influence in the regulation of the external affairs of the family as well, though these constitute the special charge of the senior male member. The earnings of every member are thrown into the common stock, from which they are drawn as required by the head of the family to meet the needs of all. Everyone earns according to his capacity and receives according to his need. Thus the joint family organization may be regarded as the nearest approach to the ideal of a socialistic community.

[1] Seligman, op. cit., ch. vi.

Apart from kinship, religion and social tradition, economic conditions of life and labour helped the joint family to maintain its cohesion and solidarity for long centuries. Difficulties of communication and travel compelled all the members of the family to live together and to carry on jointly the hereditary family occupation in agriculture, industry or trade.[1] Such a state of things naturally prevented the individual member from going abroad and carving for himself a different and independent career. Nor was there much scope for the employment of differential ability, which is the essential characteristic of the present complex economic organization.

19. **Merits of the joint family system.**—Several points may be urged in favour of the joint family system. In the first place, it teaches men to labour without selfishness and suffers none to lack. To every one is guaranteed at least a bare subsistence, which is the very first condition of economic progress. Children who may happen to be orphans are properly cared for and not turned adrift into the world before they are in a position to face its troubles. Similarly, the joint family affords a safe and respectable asylum to unfortunate widows, for whom an escape by re-marriage from their helpless condition is not ordinarily available. The joint family again renders superfluous any State provision in the shape of old-age pensions, poor relief and the like for the aged and the poor; those that are infirm, in spite of their disability, are made to fit into the household economy, being assigned work suited to their strength and capacity. More generally, we may say that the joint family secures the advantages of a simple division of labour to some extent, by giving each member such work as is suited to him. In the village, the women-folk and the children of the cultivators' and artisans' families help the adult males in their occupations—a consideration of some importance during the busy seasons of the year, when there is practically no labour to be had on hire.

In the field of consumption, much saving is effected by preventing reduplication of household equipment and establishment, and thus a small income is made to go a long way, and comparatively large families can be maintained without much effort. So long as a joint family keeps together, the most economical use of its assets is possible, and evils such as excessive sub-division and fragmentation of land are avoided.

Over and above these economic advantages, the joint family at its best fosters the virtues of self-discipline, sacrifice, obedience and reverence.

[1] Bhatnagar, op. cit.

20. **Defects.**—However, certain inherent defects of the joint family system are being brought into relief by the altered circumstances of to-day. One of the main defects of the joint family system is the absence of a correspondence between reward and effort—which, we may note in passing, has been advanced as an effective argument against most forms of socialism. Human nature being what it is, the best stimulus to strenuous endeavour is the certainty of being able to reap the whole of the fruit of one's effort. This stimulus is generally wanting in the joint family. For it happens only too frequently that the certainty of being looked after, whether one works or idles away one's time, breeds drones in the family, lacking in the sense of self-respect and responsibility.

As the very root-idea of the joint family is the subordination of the individual to corporate ends, necessitating the minute regulation of the conduct of every member by the family head, the environment is uncongenial for the development of individuality and of any kind of initiative and enterprise amongst those whose duty is simply to receive orders and obey them. The head of the family is the only exception to this. But even in his case the sense of responsibility to the family often keeps him from the bold acceptance of risks so necessary for economic progress to-day. Further, the earnings of individual members being spread thinly over the whole family, the accumulation of capital and, therefore, large-scale enterprise are discouraged. The development of family affection has its beautiful side but it encourages stay-at-home habits making for immobility of labour.

21. **Modern disintegrating influences.**—Modern conditions on the whole being unfavourable to the maintenance of the joint family system, its defects are being forced into prominence and the system is generally giving way to the various forces which are at present being brought to bear upon it. In the first place, the development of communications and transport have opened new opportunities for individual initiative, and the more enterprising members of the family are impelled to leave the family fold and carve out an independent career for themselves. In the second place, the loss or the decline of old family occupations has, in many cases, made it impossible for the family to keep together and has forced dispersal on it. The subtle influence of western individualism has not failed to make an inroad on the solidarity of the joint family. The markedly individualistic bias of the British civil law and procedure is further hastening the break-up of the joint family. The intensification of the struggle for existence, coupled with the growth of the individualistic spirit, is making the joint family more or less an anachronism. The familiar picture of domestic

bliss and contentment generally associated with the joint family of old has ceased to represent the facts of the case. The spirit of give-and-take has given way to uncompromising assertiveness, with the result that discontent and petty squabbles are the order of the day in many families run on a joint basis to-day.

While on the whole we welcome the gradual dissolution of the joint family system, we must not be understood to favour a blatant individualism which is entirely self-centred and feels no call of conscience to stretch out the hand of helpfulness to the weak and needy amongst one's relations. The problem is to steer clear of the complete suppression of individuality on the one hand and, on the other hand, of the complete suppression of the spirit of mutual sympathy and helpfulness. The need for self-sacrifice will always remain but it ought to be voluntary instead of obligatory.

22. **Laws of inheritance and succession.**—After the discussion of the joint family we pass on by a process of natural transition to the consideration of the laws of inheritance and succession, which are largely governed by the institution of the joint family. As Seligman observes, 'the institution of private property lies at the basis of modern economic life,' and it has been the product of a long evolution in which three main stages may be distinguished. The first stage is that of group or communal property. The second stage is that of inalienable and joint family property. The third stage is that of individual private property. In India, we may be said to be still in the second stage, though the transition to the third has already commenced. The presumption of Hindu law is still in favour of undivided family property unless there is a regular partition.[1]

23. **The Mitakshara and the Dayabhaga systems.**—Originally so far as there was any notion of ownership of family property, it

[1] 'In England, ownership as a rule is single, independent, and unrestricted. It may be joint, but the presumption will be to the contrary. It may be restricted, but only in special circumstances and under special provision. In India on the contrary, joint ownership is the rule, and will be presumed to exist in each individual case, until the contrary is proved. If an individual holds property severally, it will in the new generation relapse into a state of joint tenancy. Absolute unrestricted ownership, such as enables the owner to do anything he likes with his property is the exception. The father is restricted by the son, the brother by his brothers, the woman by her successor. If property is free in the hands of its acquirer, it will resume its fetters in the hands of his heir. Individual property is the rule in the west. Corporate property is the rule in the east. And yet, although the difference between the two systems can only be expressed in terms of direct antithesis, it is pretty certain that both had a common origin. In India, the past and the present are continuous. In England, they are separated by a wide gulf. Of the bridge by which they were formerly connected, a few planks . . . are all that now remain.'—J. D. Mayne, *Treatise on Hindu Law and Usage*, p. 305.

was in the nature of what we in these days call corporate ownership. The ownership was vested in the family as a whole and did not belong to the individual members of the family in the sense that partnership property belongs to partners. The head of the family was only the uncontrolled manager of the property. The question of the distinction between ownership and managership did not arise so long as alienation was not permitted. But when the question of alienation did arise in course of time, conflicting theories were propounded by each of the two leading commentaries on Hindu law, Mitakshara and Dayabhaga.[1] According to the Mitakshara school, the sons are joint owners of the family property along with the father even in his lifetime. According to the Dayabhaga school, they become owners only when he dies. In either case the father is the uncontrolled manager. The difference is only with regard to ownership. Under the Dayabhaga system, the father is the sole owner during his lifetime. Under the Mitakshara, the father and the sons together are owners, not as individuals, but as a corporation. This difference has led to different principles of partition and inheritance. If any member of a joint Hindu family desires a partition he can demand it, as there is no compulsion on the members of a Hindu family to live in common. In the Dayabhaga system, however, there can be partition only as between brothers and descendants of brothers, but not between a father and his sons, because the latter are not owners. Under the Mitakshara system, there can be a partition even between father and sons, as the ownership is jointly vested in them and in the event of a partition the sons can always insist on their rights being respected.[2]

24. **Inheritance under the two systems.**—We pass now to the law of inheritance, meaning by 'inheritance' the transfer of ownership which occurs at, and in consequence of death.[3] In a Mitakshara joint family, there can be no inheritance, as the death of a member makes no change in ownership, and property remains undivided unless partition is insisted upon. As Mayne points out, property

[1] There are two systems of inheritance in India, namely, the Mitakshara and the Dayabhaga. The latter prevails in Bengal and the former in other parts of India. 'The difference between the two systems is due to the fact that under the Mitakshara school consanguinity is the governing principle for determining the right of inheritance, whereas, under the Dayabhaga system its place is taken by the doctrine of religious efficiency which means the capacity of the successor to benefit the persons.'—D. F. Mulla, *Principles of Hindu Law*, p. 16.

[2] In the case of Indian States and in some zamindari estates no partition is allowed, the throne or the property descending to the eldest male member. It is only in these exceptional cases that the law of primogeniture prevails.

[3] Partition is, of course, independent of death, though as a general rule it takes place at the death of the father or manager.

under Mitakshara, so long as the family chooses to remain joint, devolves upon the members of the family for the time being by survivorship and not by succession. Even under the Dayabhaga, however, no perceptible change in the affairs of the family is occasioned by a death not followed by actual partition. It is only when a partition takes place that the question of tracing the succession arises. In a Dayabhaga family there is a case of inheritance whenever a member dies, the share of that member descending to his heir.

It must not be supposed, however, that all property in India is joint property. Separate property may be acquired, though it is not always easy to determine in what circumstances it is separate. But in the case of separate property there is true inheritance, for which legal provision is necessary.

25. **Economic effects of the laws of inheritance and succession in India.**—The result of partition and inheritance under both the schools is a widespread distribution of property, all sons having an equal share, and widows and daughters also having a limited interest in the joint property. The general principle is that the male descendants of a common ancestor through males have a greater claim than the others. In effect, if not in theory, the Mohammedan laws of inheritance and succession bear a close analogy to the Hindu law. Among the Mohammedans, though there is no presumption of jointness, the joint family itself is not uncommon, though under the Mohammedan law the owner of the property—whether ancestral or self-acquired—has full control over it during his lifetime only. It devolves by succession on even a larger variety of heirs than under Hindu law. The rules of distribution of property under the Mohammedan law depend, not on consanguinity only, but also on certain equitable considerations, by which the rules based on consanguinity are modified. As in Hindu law, there is no right of primogeniture, and male heirs are generally preferred to female.

In defence of the Indian laws of inheritance and succession it may be urged that the absence of primogeniture is a homage paid to the principle of equality and distributive justice. Their tendency is to prevent great differences of wealth from arising and to promote the growth of a substantial middle class. In respect of their operation on the division of land they tend to ensure—unless carried too far—a stable rural society consisting of independent and self-respecting peasant proprietors, who are regarded even in the west as the backbone of a healthy agricultural organization with which the welfare of the country is closely linked. From the standpoint of industrial progress, the fact that every one gets

something to start with is an advantage. The smallness of the patrimony which is the general result of an equal distribution of the property amongst the claimants, is in itself a stimulus to further effort for supplementing it in order that the accustomed standard of comfort may be maintained.[1]

There are, however, important considerations which tell against the laws of inheritance prevalent in India. In the first place, they have the effect of discouraging large-scale enterprise by preventing the accumulation of large capital resources. Saving is difficult when the share of each individual is small, as it often is when property is equally divided. This evil, however, can be mitigated by the development of joint-stock organization of industry on the basis of limited liability which enables even small savings to be utilized for large-scale enterprises.

Another serious evil flowing from the unrestricted operation of these laws in India relates to the excessive sub-division and fragmentation of land, resulting in uneconomic holdings and encouraging the litigation which plays such a sinister role in aggravating the poverty of the peasantry.

26. **Is Indian spiritualism responsible for India's economic backwardness?**—We now propose to embark on the controversy as to whether the unprogressive character of Indian society and its general economic backwardness can be attributed to Indian spiritualism.[2] It is often alleged that in India 'religion bids a man turn his back upon all material advantage, and if he is a Hindu, regard everything as a mere manifestation of religion'; and further that the characteristic of Indian civilization is an abiding sense of the infinite, whereas economic progress implies preoccupation with the finite and the material side of life. We have to consider, in the first place, whether an other-worldly attitude is enjoined by Indian religion and philosophy in a sense in which this is not true of other religions and other philosophies; and, secondly, we have to consider how far the road to economic progress in India is barred by the dominance of the ascetic ideal which is supposed to be held up before the masses by Indian spiritualism.

27. **Appeal to history.**—In this connexion we may, at the outset, appeal to historical evidence against the contention that Indian

[1] See P. Banerjea, *A Study of Indian Economics*, p. 48.

[2] When we talk of 'Indian spiritualism' and 'Indian religion' in this context, we refer to 'Hindu spiritualism' and 'Hindu religion'. Reference to Mohammedanism is excluded, because in the first place, Hinduism is the predominant faith in India and, secondly, because Mohammedanism is generally recognized to be more assertive and less other-worldly in its outlook and stands less in need of defence than Hinduism.

spiritualism has fostered a pessimistic attitude and a universal indifference to the material side of life. If the Indian mind had been exclusively taken up by thoughts of the other world, as has been frequently asserted, the Indian people would not have figured in history as great empire-builders, conquerors, and daring colonizers.[1] Their remarkable achievements in all these directions have not been disputed. The interests of Indians were by no means limited to religion and philosophy, though they made these spheres peculiarly their own. The theory that the Indian mind has always been preoccupied with religious and metaphysical speculation to the exclusion of all other interests, is inconsistent with its admitted achievements in the sphere of the positive sciences. It is well known that the ancient Indians laid the foundations of mathematical and mechanical knowledge. 'They measured the land, mapped out the heavens, traced the course of the sun and the planets through the zodiacal belt, analysed the constitution of matter and studied the nature of birds and beasts, plants, and seeds.' The invention of algebra and its application to astronomy and geometry is due to the Hindus as also are the numerical symbols now current everywhere in Europe. Again, the world-wide fame achieved by the products of the old Indian handicrafts bear testimony to the fact that Indian spiritualism did not paralyse economic activity in the past. It is true that Indians did not invent any great mechanical appliances, and Radhakrishnan makes 'a kind heaven which gave them the great watercourses and abundant supplies of food' responsible for this. Although this theory is too simple to be accepted as a complete explanation, we believe that there are sufficient grounds for rejecting the alternative hypothesis, either of an inherent defect of the Indian intellect, or of greater preoccupation of the Indian mind with matters of the spirit than with mundane matters. It must be further remembered that the mechanical inventions after all belong to comparatively recent times.[2] Till the eighteenth century at least India could challenge comparison with the leading nations of the west as regards progress in the arts of material civilization. The fact that since then stagnation has set in cannot reasonably be attributed to the influence of Indian

[1] See Kalé, op. cit., vol. I, ch. iii.

[2] 'The wonderful achievements of the western nations are strictly speaking only a century old. So that if, while instituting a comparison between Hindu and occidental cultures on the score of physical "sciences" properly so called and applied art and industry, care were taken to eliminate from one's consideration the triumphs and discoveries of the last few generations, the Hindu scientific intellect would be found to have been in no way lagging behind.'—Max Müller, *Sacred Books of the Hindus*, vol. XVI.

spiritualism. As we will see later on, there have been many other influences at work which offer a much more adequate and convincing explanation of this phenomenon.

28. **Influence of religious belief on economic activity generally exaggerated.**—Turning to present-day conditions, we find that it is exactly those people and communities like the Marwaris, Jains, and Bhatias among the Hindus, and the Khojas, Memons and Bohras amongst the Mohammedans, who may be supposed to be most amenable to the influence of orthodox religion, that have taken a prominent part in the new industrial life of the country and have shown a remarkable adaptability to western industrialism.[1] Profession of the Hindu or Mohammedan religion is, therefore, obviously not incompatible with a successful pursuit of material ends. Even supposing that the drift of religion in India, as it is generally understood at present, is antagonistic to all forms of secular activity, its influence, so far as an average believer is concerned, is capable of being effectively counteracted when conditions are favourable to material advance and when there is no inherent incapacity for taking full advantage of them. The various communities like the Jains and Bhatias referred to above have certainly been helped by the existence of powerful traditions among them of business activity and enterprise dating even from pre-British days. No religion, however unworldly its character, is able to overcome permanently the natural impulse of man to improve his economic condition. The economic motive is at least as powerful as the religious motive and more continuous in its operation, and this is true of the east as well as of the west. It is only when the general economic outlook is hopeless, when, for example, the administration is so oppressive that it discourages every effort of creative activity, that the average man seeks the consolation of a religion preaching quietism and fatalistic resignation and uses it as a kind of anodyne which steeps his senses into forgetfulness of the evils by which he is surrounded and which he must endure because he is unable to cure them. When opportunities for ameliorating his earthly condition by positive effort present themselves, adherence to a philosophy of inaction and to a religion which would turn people away from purposeful material activity tends to become purely formal. Religion and life lose contact with each other, and, while paying lip-service to the formal texts of religion, people come to regulate their life according to entirely different standards. Or, in the alternative, the profession of a religion reduces itself to the performance of some fixed ritual, and the

[1] See Kalé, op. cit., vol. I, p. 45.

scrupulous observance of certain forms and ceremonies, which need not in any way hinder the ardent pursuit of wealth. Side by side with these incongruities, which occur because the traditionally accepted belief comes to be out of harmony with changed conditions, religion itself gradually undergoes a new rational synthesis and gathers into itself new conceptions which serve to bridge the gulf between belief and conduct. There is a new adjustment of emphasis, so that worldly activity ceases to be regarded as inherently futile or sinful. The tendency is to preach energetic endeavour in the world instead of an ascetic withdrawal from it, and to deny that there need be any sharp separation between the secular and the spiritual activity. The pursuit of material ends is recognized to be not necessarily incompatible with dreams of spiritual destiny, so that the two motives may be so interwoven in the life of an individual as to form a single strand of purpose. The modern Christian world no longer takes in a literal sense the Biblical view that a rich man by reason of his riches is in a parlous state so far as his spiritual destiny is concerned.[1] Christian divines of the present day, for instance, would be ready to allow that a business man of the type of Cadbury has as good a chance of securing a place in heaven as anyone else. For material wealth in itself is not an evil. If honestly come by, it means that the person earning it has performed some valuable service which the community thinks it worth while paying for. Both acquisition and expenditure of money can be essentially altruistic in purpose and in result.

29. **Fatalism a heritage from unsettled political conditions in the past.**—We are strongly inclined to the view that the fatalism or other-worldliness which is regarded as the characteristic of the Indian outlook on life and as a serious hindrance to the material progress of the people is largely attributable to the conditions of political anarchy which prevailed in the country immediately before the advent of the British and which rendered impossible the normal functioning of the economic motive. When the governments were more the robbers than the protectors of the people—and this was the description to which most of the governments existing in the country answered in the chaotic times immediately preceding the establishment of British rule—when people stood to lose in a moment the fruits of years of industry by the rapacity of a chance invader or oppressive ruler, the incentive to the production and accumulation of wealth was bound to be very weak. It is natural

[1] 'How hardly shall they that have riches enter into the kingdom of God! . . . It is easier for a camel to go through the eye of a needle, than for a rich man to enter the kingdom of God.' *The Bible*, Mark, x, 23.

that hope and ambition faded from the outlook of the people under these conditions, and fatalism took possession of their minds.

30. **Process of reinterpretation of religion to harmonize it with changed conditions.**—With the establishment of peace, and under the influence of western ideas and western science, a reinterpretation of religion on lines familiar in the west is already taking place, and purposeful action is being preached more than passive endurance.[1] In other words, the religious outlook of a people at any given time is more commonly the result rather than the cause of their economic condition. As the economic condition becomes more favourable it is bound to give rise to a more hopeful attitude, and fatalistic doctrines are sure to recede into the background. It is a mistake to regard the Hindu religion as a permanent obstacle in the path of economic progress, because this religion is not something stereotyped and fixed for ever, but is visibly changing in its content as well as emphasis so as to keep pace with the advance of ideas and with the promise of improved material conditions.[2] The plastic conservatism of Indian civilization and culture is the secret of its survival in spite of the many and powerful onslaughts on it in the course of centuries, and there is no reason to suppose that it will fail to display its wonted adaptability under the present circumstances. The process of reading new meanings into old texts, of pouring new wine into old bottles, is in fact easier in the case of the Hindu religion than perhaps in that of any other religion. Unfriendly critics have said that the Hindu religion is amorphous and incapable of being pinned down to any definite set of doctrines and, therefore, 'unassailable and elusive as the air invulnerable'. But this is precisely also part of its strength and endows it with a wonderful capacity for adapting itself to varying conditions.

[1] As examples of this process of reinterpretation going on in India we cull the following passages from Radhakrishnan, *Indian Philosophy*, vol. I:

'Attempts to gain solitary salvation embodying the view that one's soul is more precious than all the world's souls put together are not the expression of any genuine modesty of spirit. The *Upanishads* require us to work, but disinterestedly' (p. 215). 'The false asceticism which regards life as a dream and the world as an illusion . . . is foreign to the prevailing tone of the *Upanishads*. A healthy joy in the life of the world pervades the atmosphere. . . . A philosophy of resignation, an ascetic code of ethics, and a temper of languid world-weariness are an insult to the creator of the universe, a sin against ourselves, and the world has a claim on us. The *Upanishads* believe in God, and so believe in the world as well' (p. 219).

[2] 'There has been no such thing as a uniform stationary unalterable Hinduism whether in point of belief or practice. Hinduism is a movement, not a position; a process, not a result; a growing tradition, not a fixed revelation.'—S. Radhakrishnan, *The Hindu View of Life*, p. 129.

Thus it comes about that, accused of inducing apathy and indifference to worldly affairs, it finds no difficulty in proving that, properly understood, it is not open to this accusation; that it only asks its devotees to renounce selfish endeavour but not all interest; that they are not asked to get rid of the world but rather to get right with it. The main thesis of Tilak's monumental work *Gita Rahasya,* is that the *Bhagvadgita,* the one book which can claim to be the gospel of the Hindus, distinctly prefers a life of action to that of renunciation, and in preaching action without attachment seeks to effect a reconciliation between the spiritual and material aspects of life. It has been often asserted that the characteristic doctrine of Hinduism, namely, that of *karma* is the root-cause of Indian pessimism since it suggests that asceticism and renunciation provide the only escape from the eternal round of births and re-births. This doctrine, however, is capable of an entirely different interpretation and, far from being a deterrent, it can be made out to be a most powerful incentive to action, because it makes man and not fate the architect of his fortune.

It is interesting to note that certain characteristic doctrines of Mahommedanism are undergoing a similar process of revision and adaptation. For instance, according to popular belief, a Mahommedan must neither pay nor accept interest ('riba'). Hence it is seriously debated whether a true Moslem may lawfully become a member of a co-operative society which charges interest. It is also well known that interest amounting to lakhs of rupees remains unclaimed by Mahommedan depositors at the Post Office Savings Bank. Owing to the obvious inconvenience of this taboo under present conditions attempts are being made to interpret the relevant verses of the *Koran* to make them prohibit only usury and not every form of interest.[1]

31. **Causes other than religion for Indian pessimism.**—It is thus necessary to discover other causes than the tendency of Indian religion and philosophy for an adequate explanation of the pessimism and submissive sadness noted by many observers as characteristic of Indian mentality. We have already spoken about the depressing influence of long centuries of foreign domination and misrule in India. We must add further the visitations of nature to the devastations of man in our list of causes. The climate of India, especially in those parts which are excessively damp and hot, has an enervating influence on the human frame, which on that account becomes peculiarly liable to diseases rampant in the tropics, such as malaria, plague and hookworm. Some of

[1] See M. L. Darling, *Rusticus Loquitur,* pp. 367-8.

these diseases, like hookworm, even when not fatal, lead to a general lowering of vitality and to a feeling of chronic apathy—a condition under which a buoyant hopeful outlook on life becomes impossible.[1] There is thus a physiological basis for pessimism which must not be overlooked. Again, we must consider the influence of calamities like famines, to which an agricultural country like India dependent upon a freakish monsoon is necessarily exposed and which in the past could not be tackled by anything like the present effective machinery of famine insurance and relief. This utter helplessness in the face of such a recurrent calamity must have encouraged an attitude of hopelessness and a fatalistic spirit of resignation among the people. The twin tragedies of disease and famine enacted so frequently on the Indian stage go a long way to explain the brooding melancholy of the people. Another possible explanation may lie in the numerous disabilities inflicted in a caste-ridden society, particularly on the lower castes, shutting out large masses of the people from any prospect of social and economic amelioration and condemning them without hope of release to the fate of helots.

Even in western Europe, the permeation of the masses with a spirit of hopefulness and acquisitiveness is a comparatively recent phenomenon. Before the modern scientific era, great natural calamities like famines and visitations of epidemics like plague and cholera were looked upon as indications of the wrath of Heaven, against which it was useless for weak mortals to struggle, and the so-called oriental fatalism at one time coloured the views of the masses in Europe also. If this attitude of helplessness and resignation has largely disappeared in Europe, it is because with the help of science in its protean manifestations—in the progress of medicine, in the development of communications, etc., man has come to have the feeling of growing mastery over nature and, from the vantage point of triumphs already gained, regards every evil to which he is at present subject as remediable by persistent human effort. A similar change in outlook has already commenced in India and we have no doubt that with the spread of general education and enlightenment, with the progress of practical science and the steady pursuit of a policy of national economic development, the existing causes of Indian pessimism will be removed and it will cease to be regarded as one of the principal hindrances to economic development.

[1] See Ronaldshay, op. cit., ch. xxii.

CHAPTER V

ECONOMIC TRANSITION IN INDIA

1. **Industrial Revolution in England.**—In this chapter we propose to take a survey of the fundamental changes in the economic structure and organization which have transformed conditions of life and labour in this country during the last hundred years or so. The forces in operation have been (partly) those summed up in the phrase 'industrial revolution'. In order to understand the nature of these forces it will be helpful to trace briefly the course of the Industrial Revolution in England.

The Industrial Revolution of England, although catastrophic in one sense, was, in another, the outcome of forces which had been in operation for nearly two hundred years before they came to a head and which acquired a sufficient momentum about the middle of the eighteenth century to cause those spectacular changes with which the name Industrial Revolution is particularly associated. There were many reasons why England was the most likely theatre for the Industrial Revolution to make its first appearance. The commercial revolution of the sixteenth and seventeenth centuries caused by the discovery of America and the all-sea route to India was a necessary preliminary to the later Industrial Revolution, because it transformed the scale and nature of international commerce and opened world-wide markets to absorb the enormous output of commodities due to the mechanical inventions of the Industrial Revolution. The theory of commercial monopoly characteristic of the mercantilist policy of the countries of western Europe had led to a series of wars of economic nationalism in the seventeenth and eighteenth centuries, and while England had emerged triumphant from them as a strong naval and commercial power, England's rivals had come out with crippled resources and industries. This added enormously to her competitive strength. The Industrial Revolution in England, again, synchronized with the firm establishment of British power in India, and the opening of the large markets of India acted as a powerful fillip to the new Lancashire cotton industry. Various other factors had favoured the progress of the new movement in England: for example, her insular position making her immune from the ravages of war within her borders; the establishment of internal free trade; the supremacy of the common law avoiding in a large measure the evils of feudalism and class discontent; the establishment of a parliamentary form of Government dominated by a landed

aristocracy with a strong industrial and commercial bent; the healthy mistrust of State regulation engendered by the memories of the Stuart despotism; a policy of religious toleration which welcomed the immigration of skilled foreign artisans; and the opportune development of banking and credit. The stagnation in religion and politics, central and local, in eighteenth-century England further helped the concentration of attention on industry and stimulated mechanical inventions, into the service of which were pressed the ardour and imagination already fired by the discoveries of physical science and the revival of mathematics.[1]

2. **Four main features of the Industrial Revolution in England.**— The English Industrial Revolution had four main features, revolution (i) in agriculture, (ii) in transport, (iii) in industry and (iv) in economic thought and policy—all acting and reacting on each other. The change began in agriculture in response to the demand for more food on the part of the growing population of England, and the wasteful medieval methods of the commonfield husbandry were replaced by a new system of land tenure and a much more efficient agriculture. The advance in agricultural science and the exigencies of a scientific husbandry led to the second Enclosure Movement which caused the disappearance of the yeomanry and the emergence of a class of landless labourers and a class of capitalist tenant-farmers employing them. Thus arose the present triple division of the big landlord, the capitalist farmer, and the landless agricultural labourer. In the sphere of transport and industry the Revolution manifested itself in the improved means of communication—turnpike roads and navigable canals—in the introduction of a variety of inventions in the coal, iron and textile industries (notably the spinning jenny, the power-loom and the steam-engine), and the establishment of the factory system, which involved production on a large scale and the supplanting of human labour by machinery. About 1825 started another revolution in transport methods and communications which in the fulness of time brought the railway, the steamship and the telegraph. Starting with the textiles, coal-mining and iron, the Industrial Revolution gradually spread to other manufactures, and its progress was facilitated by the organization of joint-stock companies with limited liability and the extension of credit and banking.

In sympathy with these changes, economic thought from the time of Adam Smith onwards took a new direction based on the principle of natural liberty and individual enterprise as opposed to the old system of detailed State regulation of the economic life of

[1] J. L. and B. Hammond, *The Rise of Modern Industry*, pp. 64-5.

the nation, against which Adam Smith's *Wealth of Nations* was in great part a well-reasoned and powerful protest. The new economic school adopted *laissez-faire* as its motto and was responsible for the wholesale repeal of the old regulative statutes in regard to wages, apprenticeship, etc., which removed all obstacles in the way of capitalistic enterprise and free competition and greatly hastened the pace of the Industrial Revolution. Incidentally, we may point out that the extreme *laissez-faire* policy, while it accelerated the progress of the Industrial Revolution, aggravated the evils of the period of transition inseparable from any revolutionary change and postponed the redress of many social and economic grievances which had arisen mainly from the Industrial Revolution.

3. **Results of the Industrial Revolution.**—The results of the Industrial Revolution were striking. There was an immense increase in the production of wealth, a vast extension of internal and external trade and a tremendous movement of the population from the south to the north of England along with a rapid increase in the total numbers. And there were fundamental changes in the social and economic organization of the country, with the balance of social and political power turned in favour of the capitalist classes to the detriment of the working classes in the fields both of agriculture and industry. Domestic industry was supplanted by the large-scale factory with its thousands of 'hands', connected with the capitalist by no other bond than the cash nexus which took the place of the old human relations between master and workmen. The concentration of capital and instruments of production in the hands of a small moneyed class led to a divorce between the working and owning classes and split society into two hostile camps at war with each other. The insecure and precarious life of the labourer living under an ever-present threat of unemployment, the frequent strikes and lock-outs throwing society out of gear, and the dislocation of the economic equilibrium owing to recurring crises came to be the features of the new industrial order, and society was faced with new and complex social, political and economic problems.

4. **Morison's classification: the old type and the new type of countries.**[1]—We have now to see how far these changes had their counterpart in India, and we shall begin our discussion of economic transition in India with Morison's division of the countries of the world into two broad categories, namely, (i) those belonging to the old economic order that have not yet passed through their industrial

[1] See T. Morison, *Economic Transition in India*, pp. 1-3.

revolution, and (ii) those belonging to the new economic type that have accomplished their industrial revolution. The first type of countries may be illustrated by Egypt, some countries of eastern Europe, and India, in which the old organization of industries still remains practically unaffected by new changes. The second type of countries may be illustrated by England, France, Germany and the United States, where the old organization has been completely replaced by new methods of production and distribution. This is, however, only a rough classification, for there is no sharp line of demarcation between the two categories. Most of the countries in the first category are showing a tendency to pass into the second one, and in some of them the change is already plainly visible. For our present purpose, India and England may be taken as representing the two economic types contrasted. India still for the most part belongs to the old economic type, though the signs are already set in favour of her transition to the second type. England may be said to have completed her industrial revolution, which has influenced conditions of life and labour there perhaps more profoundly than anywhere else. The old industrial organization was the result of certain physical conditions which at one time or another prevailed practically in every country in the world, and wherever they existed, the economic type produced by them was more or less uniform.

5. **Characteristics of the old order.**—The characteristics of the first type of countries, that is, those belonging to the old economic order, are as follows: (i) The predominance of custom and status over competition and contract. (ii) The isolation of small groups of the population, as in the villages, and their economic self-sufficiency primarily due to defective transport and communication. (iii) The preponderance of agriculture over other occupations, resulting in an uneven distribution of the population between the various occupations and the consequent predominance of the rural over the urban population. (iv) Simple and imperfect division of labour owing to the narrow size of the market. (v) Small-scale industry of the handicrafts and cottage industry type carried on independently by the artisan himself, and hence the smallness of the capital engaged in industry and the absence of the middleman manager or entrepreneur. (vi) Absence of money economy and prevalence of barter or direct exchange of goods against goods. (vii) Undeveloped credit and prevalence of usury.

6. **Characteristics of the new order.**—In contrast to these are the following characteristics of the second type of countries, that is, those belonging to the new economic order: (i) Freedom of contract and free play of competition. (ii) Close interdependence

between the different parts of the industrial world made possible by highly developed transport and communications. (iii) A comparatively even distribution of the population amongst the various occupations with agriculture occupying a relatively unimportant position, and the consequent predominance of the urban over the rural population. (iv) A more complex and perfect division of labour facilitated by the wide and growing extent of the market and the large and increasing use of machinery. (v) Industry organized on a large scale, requiring the use of huge capital resources and directed by a few expert entrepreneurs; concentration of labour in large factories and manufacturing centres and the disappearance of personal relations between the workmen and the capitalist. (vi) Displacement of barter by money economy. (vii) Development of credit and banking, and absence of usury.

India, at the present time, is in a state of economic transition and exhibits, in varying degrees, characteristics appertaining to both types of countries. She may be said to be marching in uneven stages through the centuries; for, while some parts are economically speaking medieval, if not primitive, others have definitely entered the modern stadium and display that full development of economic conditions found in the most advanced countries of western Europe. The trend of development, however, is towards a growing predominance of the second type described above.

7. **The old economic organization: the village.**—In order to understand the nature of the change that has been wrought in India it is necessary to describe in some detail the old economic organization as it existed before the new forces were let loose upon it.

The first important feature of the old economic order in India is the division of the country into villages where the large majority of the people lived and continue to live to-day. The isolated and self-sufficient village was the unit of the old Indian economy, and 'it is to the village that we must go to study the conditions in which men live and work who are still under the old dispensation'.[1]

8. **How the village arose and why it persists.**—Various hypotheses have been suggested in explanation of the particular mode of settlement known as the village. The difficult task of clearing the jungle for cultivation may have compelled what was originally a nomadic tribe or clan to stick to one spot for purposes of effective co-operation. A second influential factor may have been the supply of water. If water was not freely available everywhere

[1] Morison, op. cit., p. 34.

within a given area, those parts where it was abundant would naturally be chosen for concentration. Another factor cementing this concentration must have been the need for securing protection from hostile tribes and the wild beasts of the jungle. The village community in India is by no means without parallel in other parts of the world—the medieval manor in England, the German mark and the Russian mir are obvious parallels—but the enduring quality of the village organization in India and its persistence in the face of numerous political vicissitudes have often been noted as peculiarly Indian characteristics, especially by foreign observers, and glowing descriptions have been given of the Arcadian simplicity and happiness supposed to have ruled supreme in the old Indian village communities.[1]

The idea, however, that the village was able to live its own life entirely unaffected by wars and revolutions outside must be accepted with much reservation and qualification.[2] When—as, for example, during the eighteenth century—the whole country was a theatre of constant warfare and brigandage, it is unthinkable that the villages should have been allowed to pursue the even tenor of their life entirely undisturbed. As a general rule, they were forced to rely on themselves for defence against aggression. Occasionally, we may suppose, they succeeded in warding off the attacks, but often the enemy was too powerful, and successful resistance was impossible. Rapine and plunder, exaction and extortion must have rudely disturbed their economy from time to time, and recovery must often have been a slow and painful process. It is difficult to believe that the villages could have lived their normal peaceful life unruffled by the commotion of wars and revolutions round about them. The political chaos that came to prevail in the country with the break-up of the Mogul Empire could not have failed to carry its baneful influence into the villages, and subject their economic life to severe and repeated shocks. The fact that village organization remained practically unaltered for centuries must be attributed rather to certain persistent factors, such as lack of communications and the consequent absence of an effectively centralized system of

[1] The reader will recall the following oft-quoted passage from Sir Charles Metcalfe's Minute of 1830: 'The village communities are little republics having nearly everything they want within themselves; and almost independent of foreign relations. They seem to last where nothing else lasts. This union of the village communities, each one forming a separate little state in itself . . . is in a high degree conducive to their happiness, and to the enjoyment of a great portion of freedom and independence.'

[2] Cf. A. S. Altekar, *A History of Village Communities in Western India*, pp. 105-6.

administration, than to any inherent virtue in the Indian village making for its survival.

9. **The typical Indian village.**—The typical Indian village is an aggregate of cultivated holdings with or without some waste area attached to it and usually it has a central site where the dwelling houses are congregated together, with the lands of the village spreading round about the central site in a series of concentric circles. In some cases, small homesteads and farm buildings are found separately located on the holdings, though for better security and other reasons it is usual for the cultivator to stay in his house in the village dwelling area. The village often boasts of a grove and some kind of public office where the village officers keep their books and dispose of their business.[1]

10. **Village organization: (1) Agriculturists.**—Turning to the village organization, we may leave aside for the time being the difference between the two principal forms of village constitution in India, namely, the rayatwari or severalty, and the joint village, and attempt here only a generalized description indicating the features common to both. Each village is an entirely self-sufficient economic unit containing within its bounds all the labour, capital and skill necessary for the agricultural and industrial activities in it. The inhabitants of the village may be divided into three groups: (i) the agriculturists, (ii) the village officers, and (iii) the village artisans and menials. The agriculturists themselves may be divided into the landowning and the tenant classes constituting together the most important section of the village community. The actual cultivators, whether proprietors or tenants, cultivate mostly small open fields (reminiscent of the commonfields without enclosures of the English village before the agricultural revolution) with such labour as they themselves, assisted by their families, can supply, and only occasionally with hired labour. They provide the small capital that they need from their own savings or from the village landlord, or more commonly the village moneylender. They undertake the risks of cultivation, are themselves the managers, organizers and experts of their petty farms, and personally carry whatever produce they can spare to the nearest market, exchanging it for salt and other small necessaries and luxuries not available within the village itself.[2]

11. **(2) The village officers.**—Each village has its own officers and in fact the village was and to this day remains the unit of administration in India. Amongst the village officers we must first

[1] See R. Baden-Powell, *Land Revenue and Tenure in British India*, p. 66.
[2] See Morison, op. cit., ch. ii; also Banerjea, op. cit., ch. vi.

mention the headman or the patel who is a person of great importance in rayatwari villages. He is a hereditary officer responsible for the peace and order of the village and the collection of revenue, and often discharges petty magisterial duties. He holds a plot of land—called 'watan' land—by way of remuneration for his services. Then there is the village accountant or scribe styled the patwari or kulkarni who keeps the village records and accounts. There is also a watchman or choukidar who has to report crime, arrest offenders and help the police. Lastly, there is the village messenger. These village dignitaries, sometimes called the 'alutes', may be distinguished from the 'balutes' or the village servants—artisans and menials—who constitute the third group of village residents. Most villages had, in the old days, their panchayats or bodies of village elders which served as cheap and efficient arbitration courts of justice and otherwise held the village community together.

12. (3) **The village artisans.**—Almost every village possessed, in the old days, its complement of artisans such as a carpenter, a blacksmith, a potter, a barber-surgeon, a cobbler, a washerman, a goldsmith, a petty shopkeeper, an oilman, etc. The village had also its holy man, were he astrologer, priest or fakir. In larger villages there may be a weaver, and there is practically in every village a moneylender, who often combines the functions of moneylender and wholesale grain-dealer. The artisans are the servants of the village and are hereditary in character, being rarely paid by the job. They are given houses in the village and look after the needs of all the villagers who only provide, or pay for, the materials employed. Their labour is rewarded by regular annual remuneration of service land or an allowance in grain paid at the harvest.[1] Those artisans, however, whose services are only occasionally required, such as the weaver, are paid by the job. It is only for such things as the supply of a sugar-press or cart that a regular village servant like the carpenter receives extra payment. Thus in the words of the *Census Report* of 1901, 'the peculiar feature of Indian rural life is the way in which each village is provided with a complete equipment of artisans and menials, so that, until the recent introduction of western commodities such as machine-made cloth, kerosene oil, umbrellas, and the like, it was almost self-supporting and independent excepting in the matter of salt and a few other luxuries purchased at the village fair or brought in by the lamans or caravans.'[2]

[1] See Baden-Powell, op. cit., p. 69.
[2] See Gadgil, op. cit., p. 10.

13. **Self-sufficiency and isolation of the village.**—Prior to the construction of roads and railways the villager had scarcely any contact with the outside world except for the occasional visits of the grain or cloth merchant, who carried the surplus of one village to make good the deficiency of another, or the very occasional journey to some big centre of trade for selling the products of his craftsmanship. The self-sufficiency of the village was forced upon it by its being cut off from contact with the outside world. As Morison remarks, 'when water carriage is impossible and wheeled traffic slow and untrustworthy, exchanges are confined to those things which can be carried by men and pack animals.' In the India of the early nineteenth century there were only a few natural waterways like the Ganges and the Indus, and road transport was defective and almost as bad as in the England of the early eighteenth century described by Arthur Young. Proper roads hardly existed, except a few such as those constructed by the Moguls, and where they did exist, their condition was often highly unsatisfactory and they were infested by highwaymen and robbers. The East India Company did little to improve the roads, being concerned more with dividends than with administration. Internal trade, therefore, remained undeveloped. Being thus almost completely isolated from the rest of the world, the village was compelled to make its own standing arrangements for satisfying all its requirements, and it did this by attracting the requisite staff of artisans by offering them homes and regular remuneration. In normal times, the village did not suffer owing to lack of communications, because its organization took account of this disability and was designed to overcome it. In times of famine, however, lack of transport facilities prevented the distribution of corn from regions of plenty to those of scarcity, causing acute distress in the latter. This is the obvious explanation of the most astonishing variations of prices even in adjoining villages, which were so near and yet so far for lack of transport. The village grain-stores, however, insured the people against scarcity provided it was of moderate duration. As the market for the goods turned out by the village artisans was narrow it prevented any but the most imperfect division of labour. The advantages of specialization had largely to be forgone and there was a great waste of time and skill, with the result that the condition of rural industry was very backward.[1] The praise that is usually showered on the exquisite products of Indian craftsmanship belongs of right to the urban industries of the old days, and not to the industries that were carried on in the village.

[1] See Gadgil, op. cit., p. 13.

14. **Absence of money, etc.**—Another feature of village life that needs to be emphasized was that until recently the use of money was rare, whether for effecting exchanges or remunerating services. In fact, the need for money is rarely felt in a self-sufficing community which has only a few exchanges to make with the outside world.[1] Agriculture being the most important industry of the village, grain was the standard of value and it was used by the villagers in their exchanges with each other. Grain was universally desired and its bulkiness did not matter as the exchanges took place mainly within the village itself. Land was the only thing which was desired as keenly as grain and, its possession being regarded as the hall-mark of superior status in the village, it was used to remunerate services, especially of the more important servants of the village like the patel.[2] The rate at which these payments were made was determined by a minute and complicated but well-understood set of village customs. Custom rather than competition was the principal regulator of this as well as other economic relations in the village.[3]

Immobility of labour and the conservatism of the village people were even more pronounced characteristics in the old days than now, though there was a stronger sense of unity and solidarity, the weakening of which is one of the most disquieting features of the present situation.

The above description of the village system must not of course be taken as an entirely faithful picture of conditions actually prevalent to-day. The village, like so much else in the old economic organization of the country, has undergone a considerable change—and in some respects a fundamental change—in response to the new factors that have made their appearance during the last hundred years or so. The old organization is, however, still far from being completely superseded by an entirely new one, and through all the change and adaptation that has taken place it is still possible to discern clearly the lineaments of the old

[1] The scarcity of money, however, must have been felt as an inconvenience to the extent to which payment of land revenue in cash was insisted upon by Government. The peasant would then have to sell part of his produce and in this matter his position was, if possible, weaker than under present conditions. Transport being difficult and dangerous, merchants probably required a much wider margin between their buying and selling prices and as the export trade in raw materials had not yet developed the peasant was, on the whole, even less advantageously situated than now in obtaining the best possible price for his goods.

[2] See Morison, op. cit., p. 45.

[3] See sections 15-8 below.

village system in its pure form. The village in transition will form the subject of more detailed discussion later in the chapter.

15. **Custom and status.**—We have already referred to Ranade's opinion that in India 'there is neither the desire nor the aptitude for free and unlimited competition except within certain narrow grooves. Custom and State regulation are far more powerful than competition, and status is more decisive in its influence than contract.'[1] Custom and status were fostered by the stationary character of the Indian civilization, the conservative instincts of the people and more especially by natural economy or barter. Dr. Cunningham connects barter with custom and money with competition. 'So long as barter prevails there are likely to be customary payments of rent, wages and taxes; but as money is introduced there may be frequent changes of these payments and they come to be settled by competition.'

Our study of the Indian caste system and joint family has already given us an idea of the power of these institutions in determining for the individual his career in life and the whole course of his social and domestic relations. So long as these institutions were not appreciably affected by modern influences, the individual was not a free agent and had no freedom of contract in the matter of choosing his occupation, his standard of living, his residence, etc. Birth in a particular caste and family fixed his status in society irrevocably, for good or for ill, from which there was no possible escape. The individual was compelled to fit in as best he could with the position determined for him by the accident of birth.

Historically, custom has played a very important part in determining economic relations of all kinds, and it reigned supreme in Europe before the Industrial Revolution under the manorial and the guild systems. It is only in comparatively recent times that competition has replaced custom. In much the same way, custom rather than competition determined rent, wages and prices under the old economic order in India. Custom may be regarded as mere convention based on the force of habit, and the essential idea of custom is resistance to change of any kind for no other reason than that it is change. Even under the so-called regime of custom, however, the silent force of competition masked as changed custom is plainly visible. Custom cannot for long remain out of conformity with competition, for, as Morison remarks, 'competition is only another name for that struggle for existence which runs through all animate

[1] See p. 5.

nature. . . . As a matter of fact, the antagonism between competition and custom is often exaggerated; it will generally be found that in practice they do not produce very dissimilar results. When they diverge, custom is usually altered to bring it into harmony with the practical requirements of the case.'[1] The antithesis between custom and competition is based on the degree and ease of adaptation to changing conditions. What is really meant is that under custom change is difficult and is attended with much greater friction than under competition. It is not implied that under custom change does not take place at all. Where mobility of labour and capital is perfect, competition will prevail, whereas custom will be predominant in the absence of this mobility. In connexion with the influence of custom, Mill points out that it is often the powerful protector of the weak against the strong and their sole protector where there are no laws or government. On the other hand, custom very often means habitual suppression of the weak in favour of the strong, as in the case of the guild and the caste or under the feudal system. It tends to repress the individual and to subordinate him to the community in a greater degree than is desirable.

16. **Custom and rent.**—We may now go on to notice the influence of custom on the various economic relations in the old days.

The rents paid by the cultivators to the landlord were largely customary, varying little from generation to generation. There were also certain special circumstances which even under competition would have made for the immobility of rents. For instance, in the old days in India, owing to its relative abundance, it was land that ran after tenants rather than the tenants after the land as is now the case; the explanation of this state of affairs being, at least partially, the fact that the tenant was not always certain, owing to conditions of political insecurity, of being able to reap the legitimate fruit of his labour in cultivating the land. Moreover, the tenants came in handy to the landlord as his retainers under conditions of perennial warfare. It was precisely because of the prevalent conditions of insecurity, however, that the tenants could not drive a hard bargain with the landlord who was their natural protector and in whose strength and prosperity lay their safety.[2] These circumstances established an equitable and mutually profitable relationship between landlord and tenant. When, however, peace was established, the landlord did not fail to raise the customary

[1] Morison, op. cit., p. 54.

[2] Cf. Martin Leake, *The Foundations of Indian Agriculture*, p. 130.

rents, the change being none the less real for being concealed by the ingenious plan of levying extra cesses instead of raising the rent as such.

17. **Custom and wages.**—As regards wages, to the very small extent to which hired labour was employed at all for the cultivation of land, there were certain recognized customs which regulated the remuneration of labour, the usual plan being that the labourer was supplied with board and lodging in the house of his employer or received fixed payments in kind. The labourer was engaged for a long period, generally by the year. We have already seen that the remuneration of the rural artisans for services rendered to the village community took the form of certain customary payments in the shape of annual grain allowances received from every cultivator at the threshing floor. The plan on the whole worked well from the point of view of both the parties concerned. The payments were elastic, as they varied with the nature of the harvest from year to year and, being payments in kind, the modern complication of a disparity between real and nominal wages due to changes in the purchasing power of money did not arise.

18. **Custom and prices.**—Payments in money for goods purchased were the exception rather than the rule. In so far, however, as they did occur, in normal years custom was sufficiently powerful to regulate them; it could not well be otherwise in an environment where practically all transactions in the village came under the influence of custom. But in abnormal years, custom was overborne by competition, so that prices soared enormously high in years of scarcity and came down like a rocket in years of plenty. There were no moderating influences operating from outside on these local fluctuations, as the village had practically no access to the outside markets on account of defective transport. There could obviously be no such thing as a uniform level of competitive prices for the whole country in the absence of wide, well-organized and sensitive markets, and we have already had occasion to remark that there were often astonishing variations in prices even in adjoining villages.

19. **Towns under the old economic order in India.**[1]—Although we have no reliable statistics to prove it, there is reason to believe that about ten per cent of the population in India lived in towns at the beginning of the last century. This proportion was higher than in some of the contemporary countries of Europe, for example France or Russia. It must also be remembered that the industrial population in India was then largely distributed in villages also and

[1] For our account of towns we have largely drawn on Gadgil, op. cit.

it has been suggested that about forty per cent of the population was dependent upon rural and urban industries and sixty per cent on agriculture.

The origin and prosperity of most of the old Indian towns may be traced to the three following reasons. (i) They were places of pilgrimage or sacred places of some sort like Allahabad, Benares, Gaya, Nasik, Puri; or (ii) they were the seats of a court or the capital of a province like Delhi, Lucknow, Lahore, Poona, Tanjore, Arcot; or (iii) they were commercial depots, owing their existence to their favourable position along trade routes, such as Mirzapur, Bangalore, Hubli, etc.

Of these, the sacred places and capital towns were more important than the commercial towns. In the holy town, such as Benares, there prospered brass, copperware and bell-metal industries turning out sacred utensils and vessels for which there was a steady demand from the pilgrims. The court towns also were by no means negligible. They were numerous and arose not only in connexion with the imperial courts, but also with those of petty chieftains or nabobs. Their prosperity obviously depended upon that of the patronizing court and they decayed with its removal or collapse, as in the case of the old Deccan capitals now in ruins, such as Deogiri, Paithan, Bijapur and Vijayanagar. In this class of towns, luxury industries predominated; for example, fine textiles, embroideries, gold and silver work, ivory and many other artistic handicrafts which then had attained the pinnacle of their glory and called forth the admiration of all lovers of art. The trading towns owed their importance to their advantageous position along trade routes and rose from their humble origin as cross-road villages. However, since the internal as also the external trade of India during this period was not very large, the importance of this class of towns was restricted; but their position was more stable than that of those dependent upon the prosperity of courts.

The main features of town life even then were naturally different from those of life in the village communities. They had larger populations, which depended on the imported supplies of corn from the neighbouring villages. They displayed a greater variety of trades and occupations, and possessed a better organization of industry and wider markets. They were characterized by a greater frequency of cash payments and enjoyed larger freedom in consumption and more efficient organization of credit. From very early times the collection of goods and their subsequent distribution by sale had reached a high degree of development in India. The use of indigenous credit instruments such as *hundis* or bills of exchange drawn by one banker or trader upon another, implied a considerable

organization for trade purposes, and we know that money was thus transferred with facility from one account to another all over India. The great commercial houses of course dealt not only in money but also in wares; for instance, in Mirzapur and Benares there were dealers who collected goods and distributed them over a very considerable area.[1]

20. **Indian industries in the past.**—It is sometimes said that India has never been an industrial country and that nature has destined her to be an agricultural country. Now, if by this statement it is meant that agriculture has always been an important industry in India, this need not be disputed. Further, if it is meant that India has not been an industrial country in the modern sense of the term, this also may be conceded, though it is necessary to observe that even England and other highly industrialized countries of to-day were, at a not very remote period of their history, in the same position as India at the present time. If it is, however, implied that there were never any considerable industries in India apart from agriculture, it is easy to disprove such a statement by an appeal to her past history.[2] As the Industrial Commission (1918) observe, 'At a time when the west of Europe, the birthplace of the modern industrial system, was inhabited by uncivilized tribes, India was famous for the wealth of her rulers and for the high artistic skill of her craftsmen. And even at a much later period, when the merchant adventurers from the west made their first appearance in India, the industrial development of this country was, at any rate, not inferior to that of the more advanced European nations.'[3] 'The skill of the Indians,' says Professor Weber, 'in the production of delicate woven fabrics, in the mixing of colours, the working of metals and precious stones and in all manner of technical arts has from very early times enjoyed a world-wide celebrity.'[4] Egyptian mummies dating from 2000 B.C. have been found wrapped in Indian muslin of the finest quality. Rome consumed Indian manufactures on a large scale and the Dacca muslins were known to the Greeks as the Gangetika. The iron industry also had attained a high level of progress as shown by the famous cast-iron pillar near Delhi. Thus industry 'not only supplied all local wants but also enabled India to export its finished products to foreign countries.'[5] India was likewise famous for her silk manufactures, her woollen shawls, boxes of sandalwood and cutlery. Many a foreign traveller has paid glowing tribute to her flourishing

[1] See Morison, op. cit., pp. 167-8.
[2] See the works of Romesh Chandra Dutt on the economic history of India.
[3] *Industrial Commission Report*, p. 1.
[4] Ibid., Minute of Dissent, p. 295.
[5] Ranade, *Essays on Indian Economics*, p. 171.

arts and industries. The successive waves of foreign conquest which commenced from the eleventh century must have greatly hampered the development of Indian industries for some time. The return of stable conditions, however, especially under Akbar, seems to have fully revived them. Indian cotton goods as well as silk goods were then exported in substantial quantities to Persia, Syria and Arabia. It was this trade and prosperity that attracted the European traders to India. Their rivalry to secure a footing in India at that time was occasioned not by the raw materials of the country but by the value and variety of her manufactures and crafts. It was the fine linens and calicoes, the jewels and the embroideries, woollen and silk manufactures, that supplied the basis for the lucrative trade of the East India Company.[1]

The urban industry of India at the beginning of the last century consisted chiefly of handicrafts producing fine textiles and other luxury goods for the aristocracy. It was far better organized than rural industry and was the first to be exposed to the full blast of foreign competition. The chief industry was, of course, the textile handicrafts, and among them the cotton industry was easily the first and was to be found all over India. As R. C. Dutt observes, 'weaving was the national industry of the people and spinning was the pursuit of millions of women.' The more important centres of the cotton industry were Dacca, Lucknow, Ahmedabad, Nagpur and Madura. The most famous woollen products were the Kashmir shawls—not, however, confined to Kashmir, but also produced in several towns of the Punjab. Then there were the metal industries turning out brass, copper and bell-metal wares, the chief centres for which were Benares, Nasik, Poona, Ahmedabad, Vizagapatam and Tanjore: these industries were, however, spread all over India. Arms and shields were manufactured in the Punjab and Sind. The towns of Rajputana specialized in all kinds of artistic works like enamelled jewellery, stone carving, etc. There were also other crafts like gold and silver thread, marble work, sandalwood work, glass and ornamental rings, tanning and leather works, paper-making and perfumery.[2] The shipbuilding industry was a hundred years ago in a sufficiently prosperous condition to excite the jealousy of English shipping interests and was favoured by the differential advantage enjoyed by India of large supplies of good timber, which was an important consideration before the days of iron-built steamships.

[1] See Malaviya's Minute of Dissent, *Industrial Commission Report*, pp. 296-7.

[2] See Gadgil, op. cit., pp. 36-8.

The urban handicrafts were organized into trade guilds upon a caste basis pursuing hereditary occupations. These guilds served as mutual help societies, governed membership conditions and quality of work. There was a good deal of division of labour and some degree of localization of industry as illustrated above, though every important city had its full equipment of the different handicrafts. Thus the urban industry was better organized than the rural non-agricultural industry. As in the case of handicrafts everywhere, the independent craftsman was not a big capitalist. He generally worked to order, the materials being usually provided by his customers. The artisan, living as he did under the domestic system of industry, was able without effort to learn the secrets of his occupation from his father and enjoyed the advantage of an assured position owing to the system of hereditary family trades. There can be no question that the position of the artisan was more prosperous than at present, on account of the assured demand for his wares. However, it is easy to paint too rosy a picture of his economic position. For example, the weaver was not generally able to reap the whole benefit from the keen demand for his wares. A good deal of this benefit was intercepted by the middleman employer who advanced money to the weaver and had often the ability, as he sometimes had the will, to exploit him.

21. **Causes of the decay of Indian industries and progressive ruralization.**—The decline of the handicrafts, though in some cases it began as early as the end of the eighteenth century, became very marked about the middle of the nineteenth century and it can be attributed to the following causes:—

(1) *The disappearance of the indigenous courts.*—The disappearance of the patronage of the courts and of the nobility meant the cessation of the main demand for the products of the handicrafts and hence their decline. For instance, the prosperity of the cotton and silk manufactures of Bengal had largely depended on the existence of the great Mogul Empire with courts at Agra, Delhi and Lahore; and with the break-up of that Empire, which commenced after the death of Aurangzeb, the Bengal manufactures naturally began to dwindle.[1] The process of the disappearance of the patronage of the courts and of the nobility was considerably accelerated by the extension of British power and hastened the decay of the industries that depended upon it, for example at Lucknow and Tanjore.

[1] See Moreland, *From Akbar to Aurangzeb.*

(ii) *The operation of adverse foreign influences.*[1]—The introduction of British rule indirectly weakened the power of the guilds and other bodies which regulated the trade and supervised the quality of the materials used. The disarming of the population and the establishment of peace unfavourably reacted on industries turning out arms and weapons. The European official, the foreign tourist and the newly educated professional class of Indians were the natural successors of the people whose patronage had kept up the handicrafts. Although the European in India naturally preferred goods imported from Europe, there was nevertheless a certain amount of European demand for these handicrafts, which helped to arrest their decay. But the introduction of new forms and patterns to suit the European taste and the increasing demand for cheap goods prejudicially affected the quality and workmanship of Indian handicrafts. The educated professional class as a whole turned its back on the indigenous crafts, being influenced by the standards of the ruling race, and took more kindly to the consumption of imported goods in preference to indigenous goods. Thus, the gap caused by the disappearance of the old patronage of the courts was only partially filled up under the new order of things.

(iii) *The policy of the East India Company and British Parliament.*—The commercial instincts of the East India Company led it at first to encourage Indian industries, by financing them and otherwise, as its export trade was largely drawn from them. But this policy met with determined opposition from vested interests in England which made use of their influence in Parliament so that the Company should concentrate on the export from India of raw materials necessary for the English manufactures.[2] The opposition in England to the East India Company's trade between England and India was, at the end of the seventeenth century, also occasioned by the drain of specie to India which that trade involved. In the first half of the eighteenth century, England used the tariff against India with the double purpose of protecting her woollen and silk manufactures and of raising additional money to meet the cost of the continental wars. From 1700 to 1824 the use of dyed Indian calicoes was prohibited in England by the law which, however, left untouched plain muslins and calicoes, and also all kinds of silk and cotton goods meant for re-export to the Continent. As R. C. Dutt observes, 'India in the eighteenth century was a great manufacturing as well as a great agricultural country, and the Indian hand-looms supplied the markets of Asia and Europe. It is unfortunately true

[1] See Gadgil, op. cit., pp. 43-5.
[2] *Industrial Commission Report*, p. 75.

that the East India Company and the British Parliament, following the selfish commercial policy of a hundred years ago, discouraged Indian manufactures in the early years of British rule in order to encourage the rising manufactures of England. Their fixed policy, pursued during the last decade of the eighteenth century and the first decades of the nineteenth, was to make India subservient to the industries of Great Britain, and to make the Indian people grow raw produce only, in order to supply material for the looms and manufactories of Great Britain. This policy was pursued with unwavering resolution and fatal success; orders were sent out to force Indian artisans to work in the Company's factories; commercial residents were legally vested with extensive powers over villages and communities of Indian weavers; prohibitive tariffs excluded Indian silks and cotton goods from England; English goods were admitted in India free of duty or on payment of a nominal duty.[1] Duties ranging from thirty to eighty per cent, and in some cases prohibition of Indian imports, could not have failed to injure Indian exports to England to some extent.[2] What was more serious was the competition of English goods in India and the world markets.[3] 'Had not such heavy duties and the prohibitory decrees existed, the mills of Paisley and Manchester would have been stopped in their outset and would have scarcely been set in motion, even by the power of the steam. They were created by the sacrifice of Indian manufactures. . . . The British manufacturer employed the arm of political injustice to keep down a competitor with whom he could not have contended on equal terms.'[4] England was now producing cotton goods for which India afforded an excellent market, and did not scruple to use her political power for the purpose of exploiting this market. 'The British Government was not likely to treat a distant community that had come under its power more unselfishly

[1] R. C. Dutt, *Economic History of India under early British Rule*, pp. vii-viii.

[2] In explaining the decline of the Indian cotton industry, however, the influence of protectionist measures taken in England to keep out Indian goods is generally exaggerated. The English market was only a tiny bit of the great cotton export from India 'which ranged from Japan and China to the Spice Islands, Burma, Pegu, Persia, Arabia, West Africa and Europe outside England' (Moreland).

[3] See C. J. Hamilton, *Trade Relations between England and India*, p. 163.

[4] It has been urged that England's manufactures would have developed even without protection against Indian goods owing to the overwhelming advantage of machinery. But H. H. Wilson's point as quoted above is, that if England had felt as much concerned about India's interests as about her own, she would not have forced a policy of free trade on India while adopting protection for herself.

than it had treated the British colonies in America.'[1] The prohibitive duties which England had levied against Indian goods imported for home consumption were removed only about the middle of the nineteenth century when, however, the unrestricted competition of British manufactures in the Indian and outside markets had already crippled the indigenous industries of India.

(iv) *Competition of machine-made goods.*—By far the most important reason for the depression of Indian textile and other manufactures of this period was the Industrial Revolution in England. In any case, the Indian domestic and cottage handicrafts could not possibly have withstood foreign competition, which derived its strength from the formidable industrial organization with its gigantic machinery, large-scale production, complex division of labour and improved transport and communications. 'The invention of the power-loom in Europe,' as Dutt writes, 'completed the decline of Indian industries.' The shipbuilding industry of India followed suit and Indian ships were displaced by the British mercantile marine, partly as a result of the adverse policy of the Court of Directors towards Indian shipping adopted in response to agitation in England. The same story may be recounted of other Indian industries such as iron-smelting and glass and paper manufactures. The revolution in transport in India caused by the rapid construction of roads and, especially, railways, since the time of Lord Dalhousie, opened out many parts of the country to imported goods even in the remote interior, and thus intensified the force of competition.[2] Roads, telegraphs, railways, the construction of the Suez Canal, the drop in steamer freights, especially after 1830, reducing the transport costs for the export of English manufactures—all these added to the difficulties and hastened the ruin of the Indian artisan.[3] The construction of railways in India was too rapid to allow the artisans to adapt themselves to the new circumstances and find for themselves other profitable channels of employment. Being taken unawares and left to their own resources, the artisans abandoned their traditional occupations in their thousands in favour of agriculture, thus increasing the pressure on land. If the railway construction had been slower and the change had been more gradual, greater power of resistance might have been shown by the Indian industries, the resort to agriculture might not have been so wholesale in character, alternative avenues of employment would have been sought out and utilized in a greater measure, and the hardships

[1] J. L. and B. Hammond, op. cit., p. 185.
[2] See chapter on Transport, vol. II.
[3] See A. Chatterton, *Industrial Evolution in India*, p. 20.

attendant on the transitional period would have been minimized. The revolution produced, however, was too sudden to permit any such adjustment.[1]

(v) *The laissez-faire policy of the Indian Government.*— Government not only did not lend a helping hand to the struggling handicrafts but sometimes went out of their way to give direct assistance to English manufactures in exploiting the Indian market. The railways carried the products of English manufacturers everywhere in the country, replacing home-made by foreign goods and encouraging the export of raw materials. The foreign trade of the country expanded at the sacrifice of the domestic trade and an unhealthy and one-sided development of the country's resources was the consequence. As Justice Ranade says, 'The great Indian dependency of England has during this (nineteenth) century come to supply the place of the old colonies. This dependency has come to be regarded as a plantation, growing raw produce to be shipped by the British agents in British ships, to be worked into factories by British skill and capital, and to be re-exported to this dependency by British merchants to their corresponding British firms in India and elsewhere. The development of the steam-power and mechanical skill joined with increased facilities of communication, have but lent strength to this tendency of the times, and as one result of the change, the gradual ruralization of this great dependency, and the rapid decadence of native manufacturing trade became distinctly marked.'[2] The Indian consumer may have gained somewhat by cheaper foreign goods, but the concentration of labour displaced from the indigenous handicrafts on agriculture has, it may be contended, increased the cost of famine relief and hence the burden on the consumer in his capacity as taxpayer. In any case, the disappearance of indigenous industries and the transformation of the country into a purely agricultural one was too heavy a price for whatever advantage may have accrued to the consumers. Assuming the ryot had now more money to spend, the increased spending power made him an even better customer for foreign goods, which were thus helped in consolidating their position in the Indian market at the expense of indigenous goods.[3]

22. **Industrial Revolution in England and India: a contrast.**— It is true that in England also the transition from the old to the new order of things established by the Industrial Revolution was attended

[1] See A. Loveday, *Indian Famines*, p. 107.
[2] Op. cit., pp. 106-7.
[3] See P. P. Pillai, *Economic Conditions in India*, pp. 27-8.

by much dislocation and involved considerable suffering to handicraftsmen. It is also true that Government in England showed an equal indifference to the fate of the displaced weavers and other artisans, and State action so far as it was positive, was intended to smooth the way for the new capitalist manufacturers and not to minimize the suffering of the handicraftsmen. But in England, the displaced labour was quickly absorbed by the new manufactures after a brief period of sharp agony; instead of increased ruralization there was a tremendous movement towards increased urbanization, and the demand for labour on the part of the new industries was so immense that the countryside was practically depopulated in order to meet it; and as a result of the Industrial Revolution, England entered on an era of unexampled prosperity and power. In all these respects the change in India was followed by altogether different results. The industrial revolution in India was the result of forces generated outside, and the machine-made goods with which the artisans had to compete were for a long time those that were turned out not in Indian but in European factories.[1] The disengaged industrial population had perforce to fall back on the land failing new large-scale industries in the country itself, and the rural character of the country became accentuated. The artisan in his new role of a cultivator found himself economically in a decidedly worse plight than before, whereas in England his confrère often strengthened his financial position by profitable employment in the new factories. As to the effect of the economic transition on the country as a whole, in spite of the advance in agriculture, irrigation and transport, it is still a debatable question whether during the last hundred years or so the national dividend has increased to an appreciable extent. The increase, if any, is so slight and microscopic that many perfectly honest and intelligent observers are unable to detect it.

The growing ruralization of the country referred to above is strikingly reflected in the census statistics relating to the percentage of people dependent on agriculture. As early as 1880, the Famine Commission of that year found that the numbers who turned to the soil for subsistence were far in excess of those needed for its thorough cultivation, and this tendency has since been gathering additional momentum.[2] The table below shows that the pressure

[1] In India the economic revolution affected transport almost exclusively and its most important outcome was a vast increase of internal and foreign trade. It was not accompanied by any considerable change in the methods of production whether in agriculture or in industry.

[2] Brij Narain, *Indian Economic Life*, p. 349.

on land has increased in all the provinces (in the Punjab perhaps, the position has not changed much) between 1901 and 1921.

	Percentage of total population supported by					
	Agriculture			Industry		
	1901	1911	1921	1901	1911	1921
India	65·2	69·8	70·9	15·5	11·4	10·7
Assam	84·2	85·4	88·6	7·8	3·2	2·6
Bengal	71·5	75·4	77·3	12·3	7·7	7·8
Bihar and Orissa ...	...	78·3	79·7	...	7·7	6·9
Bombay	58·6	64·3	61·6	18·2	12·7	12·2
Burma	66·1	69·1	70·7	18·6	6·8	6·9
Central Provinces ...	70·0	75·5	74·2	16·2	10·2	9·3
Berar	73·2	...	...	12·9	...	...
Madras	69·0	68·7	70·8	17·5	13·4	11·3
Delhi	...	...	28·4	...	...	31·0
N.-W.F. Provinces ...	56·9	66·7	65·0	19·4	11·5	12·6
Punjab	...	58·0	59·0	...	20·5	19·3
United Provinces ...	65·5	71·6	75·0	14·9	12·2	11·0

The census of 1891 returned the percentage of the agricultural to the total population as 61. In 1901, as the table above shows, it rose to 65·2; in 1911, to 69·8; and in 1921, to 70·9. Even if we ignore the census of 1891 on the ground of changes in classification since that date, the subsequent censuses leave us in no doubt as regards the movement from industry to agriculture.

The trend in this direction is visible uniformly in almost all the provinces. It is true that the census statistics cannot be taken as absolutely reliable as they cannot distinguish clearly between subsidiary and main occupations, and a great many of the cottage industries are carried on as occupations subsidiary to agriculture.[1] But this element of inaccuracy being equally present in all the censuses, the figures at the different censuses may be safely used for comparative purposes.

Large-scale industry on modern lines has, however, already made a start and Government being committed to a policy of rapid industrialization, the progress in this respect ought to be more satisfactory hereafter, remedying the excessive ruralization which filled Ranade with misgiving and alarm. Greater development of the manufacturing industries in the country itself would obviously

[1] Gadgil, op. cit., p. 321.

increase the difficulty of the artisans' position, and one of the questions which we will have to examine at a later stage will be, whether cottage industries are doomed to extinction or whether their continued existence and prosperity are compatible with industrialization in the modern sense of the term.

23. **The village in transition.**—The organization of the village community and its economic life described already are undergoing a transformation as a result of the new forces called into existence by administrative centralization, the growth of individualism due to the impact of western civilization, and the revolution in transport and communications.

(i) *Administrative centralization.*—'The Indian villages formerly possessed a large degree of local autonomy, since the native dynasties and their local representatives did not, as a rule, concern themselves with the individual cultivators, but regarded the village as a whole or some large landowner as responsible for the payment of Government revenues and the maintenance of local order. This local autonomy has now disappeared owing to the establishment of local civil and criminal courts, the present revenue and police organization, and the operation of the individual rayatwari system which is extending even in northern India.'[1] This British policy of administrative centralization, which was adopted in opposition to the recommendations of Elphinstone in Bombay and Munro in Madras, who were anxious to preserve the village community in health and vigour, paralysed the incentives to village autonomy, and the brand new creations such as the District and Taluka Boards have proved very indifferent substitutes for the restricted, but more effective self-government of the village.

Effective administrative centralization postulates, firstly, the establishment of a strong stable Government, and secondly, easy communication and transport. Both these conditions may be declared to have been conspicuous by their absence in the pre-British period. Most of the ruling dynasties were preoccupied with the more serious problem of self-preservation and of necessity followed the line of least resistance, interfering as little as possible with the village administration. And even the most powerful Government must, in any case, have found the task of a day-to-day interference in village affairs impossible of performance, owing to the purely physical difficulties of communication and the inaccessibility of the villages to the officers of the Central Government. In these circumstances, the policy of decentralization had perforce to be adopted and the autonomy of the village followed as

[1] *Report of the Decentralization Commission* (1909).

the natural result of these conditions. With the present altered situation, the restoration of village autonomy must come as the result of a deliberate surrender of power on the part of the Central Government. The rehabilitation of the village can, however, never mean a return in all respects to the old dispensation. The village could never again be economically self-sufficient and almost completely isolated as of old; nor should we desire such a fate for it.

(ii) *Growth of individualism.*—Another factor which has contributed to the disintegration of the village community has been the growth of individualism. In modern times, individual legal rights have grown in all directions and have strengthened the position of the individual at the cost of corporate life. Such a tendency has manifested itself in India, and is one of the strongest present-day forces making for the disruption of the old fabric of Indian society based on corporate, rather than individual rights. Corporate feeling in the Indian village has thus been considerably weakened, although it is not altogether dead yet. The village has still sufficient vitality to be regarded as the primary unit of administration, and the old village dignitaries such as the headman and the accountant are indispensable links between the village and the Central Government. Moreover, the prospect of the revival of village self-government and corporate life has been brightened by the influence of the co-operative movement and the realization on the part of the Government of the value and importance of the village panchayats. The *Montagu-Chelmsford Report* gave the needed impulse to a movement which had already received the blessings of the Decentralization Commission of 1909. It is not easy to pour new wine into old bottles without cracking them, and the task of reviving village self-government is one bristling with difficulties relating to finance, personnel and the unfortunate break of over a hundred years in the tradition of village self-government. In spite of the great difficulties, however, the ideal of village autonomy is worth pursuing, and the obstacles in its path will vanish in the course of time with the economic betterment of rural India, the spread of education and general enlightenment of the people. It is essential, however, that the idea of village self-government should be pursued as part of a comprehensive scheme of rural reconstruction.

(iii) *Revolution in transport.*—Lastly, the revolution in transport effected by the construction of a network of railways and roads, since the middle of the nineteenth century, has broken down the isolation of the village and brought vital changes in its train.

24. **Features of the village in transition.**—(i) The most important feature is the destruction of the self-sufficing character of the

village. The village now imports from outside, cloth, kerosene oil, aluminium ware, sugar, tea, matches, umbrellas, scissors, bangles, mirrors, drugs, sewing machines, etc. This increasing dependence of the village on the outside world has been largely helped by the changes in the standard of living due to western influences. The village has also begun to grow for the outside market and its increasing dependence on exchange with the outside world has initiated an economic revolution of a far-reaching character.

(ii) The nature of the famine calamity has also been transformed along with the break-up of the isolation of the village. The possibility of importing food from areas of plenty to make good the deficiency of local harvests has substituted famines of money for those of food as well as of money; and famine no longer stands for acute suffering from hunger on the part of large masses of the people, but merely involves scarcity prices and a temporary dislocation of employment and of agricultural operations. Similarly, the opposite fear of agricultural ruin by plenty and low prices in years of bumper harvests is lessened on account of the extension of the size of the internal and international markets. At the same time, the old village grain-stores have practically disappeared, because the village can now draw upon a much larger grain-store co-extensive with the whole country.

(iii) Another striking change relates to the introduction of money economy. The growing frequency of exchanges with the outside world, which stands in marked contrast with its rarity in the old days, and the rise in agricultural prices are bringing money into the village, as also the remittances of those who go out of the village for employment. This increasing supply of money has led to its adoption as a normal medium of exchange, and payments in grain are now infrequent. Indeed, the substitution of money for barter, as we have seen, is a familiar index of the transition from the old to the new economy and marks a stage in the advance of civilization. Land Revenue and other taxes, rents, interest on loans and wages are now largely paid in cash. Customary payments in grain for the services rendered by village artisans have not yet been completely supplanted, but they are much less important now than in the old days. Cash payments are also needed for commodities imported by the village.

(iv) The village population is no longer stable and immobile, thanks to the railway and the economic necessity of supplementing rural income by earnings in towns. There is no longer the old fixity of occupations and there is a certain weakening of the influence of caste and status. The numbers actually employed in factories, mines and the great public works may at any time be negligible in

proportion to the total population, but owing to constant substitution, the numbers affected by modern influences are far greater. The break-down of the isolation of the village is especially striking in the case of those villages which are within easy reach of big urban centres.

25. **Transition in village occupations—I. Transition in agriculture.**—We may now proceed to study briefly the transition in village occupations, beginning with agriculture, the premier industry of the village, and passing on to the transition in the village crafts.

There has been no fundamental change in the organization of the agricultural industry. Cultivation on a small scale by small farmers working with their own capital and labour is still the normal arrangement. If anything, the growing ruralization of the country and the increased subdivision of land have considerably increased the number of small cultivators. Similarly, the old immemorial agricultural methods and technique still remain largely unaffected, the success of the Agricultural and Co-operative Departments in introducing improved method and implements being so far very limited in character.

The transition in Indian agriculture has four important aspects, namely, (i) commercialization of agriculture, (ii) dispossession of the ryots and the transfer of land from them to non-agriculturist moneylenders, (iii) increasing subdivision and fragmentation of holdings, and (iv) scarcity of rural labour.[1]

(i) The commercialization of agriculture has been due mainly to improved transport and better communications. The opening of the Suez Canal in 1869 in particular helped to establish wider and world-wide markets for agricultural products.

The opening of the world markets and the consequent commercialization of Indian agriculture were factors forced into prominence in the sixties of the last century owing to the American Civil War. The American cotton supplies being cut off by that war, Lancashire had to fall back on other sources like Egypt and India. The Lancashire demand led to a cotton boom which for a time put large profits into the pockets of the cotton grower and the exporter. Further, the opening of large tracts for cultivation owing to the initiation of large irrigation works in the Punjab, United Provinces and other provinces has given an impetus to the substitution of commercial for subsistence husbandry. Apart from transport and irrigation but connected with these, another factor responsible for the commercialization of agriculture has been the in-

[1] For a fuller treatment of the question see Gadgil, op. cit., pp. 170-82.

creasing use of money in the village and cash payments of taxes, rent, interest and wages. The necessity of cash payments is compelling the cultivator to sell a part of his produce, in many cases a very large part, immediately after the harvest and he has often to buy back his own crop from the moneylender at prices higher than those at which he sells.

This new phase of agricultural production has in a certain measure led to the specialization of different regions in particular crops; for example, Bengal specializes in jute; Bombay and Berar in cotton; Central Provinces in oil-seeds; the Punjab in wheat, and so on. It has also led to an extension of the area under industrial and non-food crops like cotton, jute and oil-seeds. Further, there has arisen a special class of middlemen, wholesale dealers and exporters, for moving crops such as cotton, jute, wheat, etc. quickly to the ports and to inland distributing centres. In our chapter on Agriculture we shall see how far this commercialization of agriculture has really benefited the producer and the country as a whole and what improvement in the marketing of agricultural produce is necessary.

(ii) The dispossession of the old peasants by the moneylender is one of the results of rural indebtedness which has been stimulated by the growth of individual rights in land, freedom of transfer, rise in land values, facile credit and the highly complicated civil law and procedure. We shall discuss elsewhere the primary and secondary causes of agrarian indebtedness along with the various measures taken by Government to check the alienation of land in favour of the non-agricultural classes.

(iii) The increasing subdivision and fractionalization of holdings, so highly detrimental to improved agriculture, has been due to the growing pressure of the population on land operating through the laws of inheritance and succession.[1]

(iv) The scarcity of agricultural labour of which complaints have become common in many villages is particularly felt at harvest time when the extra labour of the small cultivator and his family is not available; and it has been attributed to an increase in the area under cultivation, the growth of city industry and the tendency on the part of substantial farmers, who have especially benefited from a rise in prices, not to work their fields themselves but employ hired labour.[2]

II. Transition in the village crafts.—We may now turn to examine the change in the position of the rural artisan. On the

[1] See chapter vii.

[2] See G. Keatinge, *Progress of Agriculture in Western India*, pp. 144-6.

whole, the change here has not been revolutionary. 'The carpenter, the blacksmith, the washerman, the barber-surgeon, the potter, etc. still exist as village servants with recognized duties and remuneration,' receiving their customary dues. But customary duties now play a less important part than they did in the past and the village artisan of to-day is more ready to migrate in search of better earnings elsewhere. Easy and cheap transport, by facilitating imports from abroad, has made it all the less necessary for the village to provide for the satisfaction of all its needs locally. The continuous presence of all the artisans in the village is, therefore, no longer required. Payment of the artisan by the job rather than for the year is becoming more common, though the transition in this as in other respects is yet incomplete. The same factor is also responsible for the partial concentration of certain artisans like the weaver and the goldsmith in the larger towns and villages. The village artisan has been also adversely hit by the competition of the mass production of the factories, foreign and Indian, and some village industries have already collapsed as a result of this unequal competition.

The various village artisans have been, however, affected in different ways by the transition. Hand-spinning, as in the case of the English industrial revolution, has been the worst sufferer and the old spinning wheel in every cottage has now been for the most part silenced. The village dyer has also suffered on account of the import of aniline dyes and the use of dyed mill-made yarn. The weaver has suffered, not only because of the competition of machine-made goods with which the Indian market was flooded, but also to some extent because foreign Asiatic markets such as Java and Persia, which had been previously supplied from India, now came to be supplied from England. Hand-weaving, however, is by no means extinct in India. It is computed that there are still about two to three million hand-looms at work in India and about six million hand-loom weavers, and that their annual gross earnings must amount approximately to fifty crores of rupees.[1] The increasing use of iron ploughs, crushers and other improved implements has prejudicially affected the position of the blacksmith and the carpenter, as the growing use of enamelled ware, and of copper and brass utensils has rendered the potter largely superfluous. The lot of the village tanner has become hard on account of the rise in world-prices of raw hides and skins, which are annually exported in large quantities from India, and the increasing imports

[1] See *Industrial Commission Report*, par. 256, and C. Matheson, *Indian Industry*, appendix iv.

of ready-made tanned hides. The village oilman has also been hit hard by the increasing use of kerosene oil in the village, export of oil-seeds and the growth of an oil-pressing industry in towns. Where the village industry has suffered a setback and depression, there has been a tendency for the displaced artisan to join the ranks of the day-labourers in the village itself or to migrate to towns in search of better employment. As a general rule, the artisans have given up their hereditary occupation only when forced to do so, though in some cases they have foreseen the ruin that was overtaking them and abandoned their occupation without waiting for their position to become absolutely desperate.

As regards those artisans who still continue to ply their ancestral crafts, there has been little change in their condition, except that some of them have adapted their trade in some measure to the changed conditions of production. For example the weaver now mostly uses mill-made yarn, and in some cases the fly-shuttle, as in Madras; the smith imports ready-made iron and tin sheets; the carpenter makes use of improved implements; and the tailor uses the sewing-machine.

It is thus obvious that not all the artisans in the village have been equally affected. Those that have been able to concentrate in the larger villages or to migrate to towns have improved their position—for example the carpenter and the blacksmith, for whom there is a growing demand in the engineering workshop, building and furniture industries in the towns. Those, however, that could not leave the village and had no other alternative suffered and have had to take to ordinary agricultural labour.

The foregoing survey of the transition in the village handicrafts[1] shows that rural industry is on the whole decaying. Large numbers of artisans have degenerated into mere wage-earners. A fortunate few have improved their position by migrating to towns. Some have become farmers, while those that have had to stick to their hereditary position are generally in a desperate plight and they are the first to flock to the public relief works in times of famine and distress.

26. **Transition from status and custom to contract and competition.**—We have already discussed, in the chapter on Social and Religious Institutions, the extent to which status, as regulated by the caste and the joint family system, still operates in India, and it has been shown there that Indian society is in a condition of flux and transition, and is gradually assuming a new character. Custom, for

[1] For a more detailed account of the transition in the village handicrafts see Gadgil, op. cit., pp. 183-98.

example, as a regulator of wages, rent and prices is being steadily supplanted by competition, more particularly in urban areas. The spread of western civilization, the introduction and the extension of money economy and the development of communications are rapidly weakening the force of custom, and competition is becoming the predominant force everywhere. It is true that even in the most advanced communities the force of competition is to some extent mitigated by that of custom. But though not entirely absent, the influence of custom is negligible in western Europe. In India, it is more powerful, though it is important to note that the drift of events is unmistakably towards the supersession of custom by competition and in general towards a gradual approximation to western conditions.

(i) *Competition and rent.*—The growth of population, the ruralization of the country, the practical absence of other outlets, the high prices of commercial crops like jute, cotton, wheat, oil-seeds, etc., the traditional sentiment in favour of land, and the establishment of peace and order together with the introduction of cash rents, have all extended the range of competition in determining rent. In some cases, the tendency towards rack-renting the tenants on the part of landlords has had to be checked by the passing of Tenancy Acts, as in Bengal, Madras, United Provinces, Central Provinces, etc., so as to secure for the tenants the enjoyment of rights already conferred upon them by custom, and to prevent arbitrary increases in rent or eviction. As regards house rent in towns, it is now practically a competitive rent; the only thing that need be said about it is that in a few places like Bombay it is controlled by legislation.

(ii) *Competition and wages.*—At the present time in India, especially in the towns, wages may be regarded as governed more by competition than by custom, although competition even in this sphere is not so powerful a force as in western countries. The response of wages to changes in demand and supply is not so quick as in the west and so the wage level, while it varies in different parts of the country, is comparatively stable. Competition now affects the rate of wages in villages also as a result of various forces, such as the increased demand for labour in towns, the greater mobility of labour due to better means of transport, and the introduction of cash wages. The customary remuneration of the village artisan, as has already been shown, is becoming less important, especially in the case of such artisans as the village blacksmith and the carpenter who can easily find employment in the towns. The wages of farm labourers are also largely governed by competition, particularly where there is a scarcity of agricultural

labour. The nearest approach to purely competitive wages is attained in the towns under the influence of an ever-increasing demand for labour.

(iii) *Competition and prices.*—Prices in rural areas are being increasingly determined by competition as regulated by the relations between demand and supply. In consequence of improved communications, changes in prices in one part of the country nowadays quickly affect those in other parts, and the linking up of the country with the world's markets has considerably enlarged the scope of competition in determining prices. It is obvious, however, that prices in rural areas are bound to be more sluggish than in urban areas owing to the greater conservatism and ignorance of the rural population.

27. **Transition in industries.**—We have already described the transition in the indigenous industries of the country, the causes of their decline and the progressive ruralization of the country.

The industrial position of India, as Ranade points out, had sunk lowest towards the middle of the seventies of the last century,[1] but from that time onwards there has been very gradual but almost uninterrupted progress in large-scale industry. 'To those who look forward with hope to an industrial revolution in India, the bright side of the picture is not to be sought in the village at all but those manufacturing centres which have sprung into life in recent years and in which industry is organized on a completely modern basis. It is to Bombay, Cawnpore and the banks of the Hooghly that we must go to find labour concentrated together and working under expert supervision. It is in such cities that capital has been freely spent on the erection of mills and costly machinery, that the economics of large-scale production have been secured, and that Indian captains of industry have arisen.'[2] The new form of industry was first established in the plantation industries such as those represented by the tea, coffee, indigo and jute estates, which were and have remained to this day in the hands of European planters. This new development was favoured by the removal of restrictions on European settlement and enterprise in India by the Charter Act of 1833, and also by the abolition of slavery in the West Indies, which deprived the West Indies planter of the advantage of cheap labour.[3] British business men were not slow to perceive the scope which the rich and varied supply of raw materials and the

[1] 'Things were as bad as they could be about 1870-5; since then the tide has turned, and India has shown signs of revival which marks its first step in the transition from a purely agricultural country into a partly manufacturing and trading country.'—Op. cit., p. 119.

[2] Morison, op. cit., pp. 170-1.

[3] See Knowles, op. cit., p. 306

huge extent of the local market offered to manufactures on modern lines, and thus justified the prescience of Lord Dalhousie who foresaw the development. The flow of British capital and enterprise into India became especially pronounced after the middle of the last century.

The example of European business men evoked a corresponding enthusiasm among the commercial classes of India, more especially in Bombay, which had the honour of giving a lead in this matter to other parts of India and winning for itself the position of the industrial capital of India. Though the progress of large-scale industries has been slow, its definite establishment in the country may be regarded as a partial set-off to the movement towards ruralization which Ranade deplored so much.

About the middle of the last century, the factory industry was introduced into India and the first outposts of the industrial revolution were planted in the country. Then were established two of the most important of India's present-day industries in Bombay and Bengal respectively. The cotton mill industry has from the first been financed and managed by Indian capital and enterprise, while the jute industry has been dominated by European capital and enterprise. The industrial revolution spread to the mining industries, and then to various other industries such as cotton gins and presses, coal, manganese, gold and mica, steel and iron, rice-husking and grinding mills, oil mills, etc. Progress was at first very slow and confined to only a few places in the country, and it was only towards the end of the last century that factory industry began to develop all over the country. In the first decade of the present century, especially under the influence of the enthusiasm created by the swadeshi movement, many mineral and some miscellaneous industries came into prominence. These later years also witnessed the spread in India of the use of small machines and small engines and generally a tendency to make an increased use of mechanical appliances was in evidence everywhere.[1] The War gave a temporary stimulus to Indian manufactures, particularly to the cotton and jute mill, steel, iron and leather industries. The recent extension of large-scale industry referable to the policy of 'discriminate protection' will receive detailed notice in our discussion of the tariff policy of India.

Two depressing features of this transition in Indian industries must be noticed. One is that the movement has been very slow and uneven, and the other is that much of it has been directed by foreign capital which consequently occupies a dominant position

[1] For further historical details see Gadgil, op. cit., chaps. iv, vi and viii.

in Indian industry and absorbs a large portion of India's newly created wealth. The invasion of foreign capital and enterprise, while it has stimulated industrial development, has resulted in many cases in the premature exploitation of such of the country's resources as are not subject to the process of natural growth and recovery, and has created powerful vested interests often in sharp antagonism with the national point of view in political and economic matters. Among the causes which explain the slowness and the uneven character of our industrial development, the most prominent are the inadequacy and shyness of Indian capital (which sought investment in moneylending, land or commerce instead of the new type of manufactures); inadequate banking facilities; uneven distribution of natural resources such as coal, the prevailing ignorance about them, and their comparatively undeveloped condition; lack of technical education; the relative inefficiency of our labour, skilled and unskilled; the dearth of skilled labour and captains of industry; the undeveloped condition of such basic industries as steel and iron; and finally the apathy of Government and their failure to put forth special effort to speed up development. The recent initiation of protection marks a welcome departure from the attitude of indifference to industrial progress which has long characterized British policy in India.

28. **Two tests of industrial progress.**—In order to ascertain the extent of the industrial progress made, and of the economic transition effected by India, two tests have been suggested, namely, (i) the statistics of foreign trade, and (ii) the growth of towns.

(i) Statistics of foreign trade bearing particularly on the proportion of manufactured goods in the imports and exports may first be discussed. As Morison observes, 'both exports and imports have increased largely with the growth of the country's wealth and population, but the export of manufactured articles has increased more largely than the export of raw materials, thus showing the local development of industries. In the import trade, the tendency is, as we should desire it to be, in the opposite direction; the import of raw materials has increased to a greater degree than that of manufactured goods,' thus showing that the country has been importing raw materials in large quantities to be manufactured in this country. Between 1879 and 1892, as Ranade himself pointed out, the export of manufactured or partly manufactured goods rose to Rs. 16·42 crores, showing an increase of 211 per cent. The rise in the export of raw produce from 59·6 to 85·6 crores was not relatively so high, being only 43 per cent. On the other hand, manufactured imports rose from 25·9 to 36·2 crores or by 39 per cent, while the imports of raw produce almost doubled

themselves from 13·75 to 26·38 crores or 91 per cent. And on the strength of these figures, Ranade came to the conclusion that the reverse movement to 'the collapse of domestic industries and the gradual rustication of our occupations' had made a promising beginning.[1] Continuing the analysis on the same lines from 1892 to 1907, Professor Kalé has been able to show that 'the import of manufactured goods rose during this period by 93 per cent and of raw materials by 127 per cent, while the export of manufactured goods rose by 139 per cent and of raw materials by only 57 per cent. The proportion of the imports of manufactured goods to total imports which stood at 65 per cent in 1879 and 57 per cent in 1892, dropped to 53 per cent in 1907, and, in the same way, the proportion of manufactured exports which was only 8 per cent in 1879 and 16 per cent in 1892 rose to 22 in 1907,'[2] and it may be pointed out here that under the stimulus given by the War, this proportion rose to 36 per cent in 1919.

The accuracy of these statistics has, however, been impugned by some critics, like J. M. Keynes, who contend that 'the figures for the imports of manufactures in the official statistics are misleading and do not mean what they apparently imply', because this heading excludes, among other items, all imports of machinery and of metals and metal manufactures. Similarly, the calculations regarding the growth of imports of raw materials are misleading. On the export side, half-finished manufactured articles such as cotton yarn and tanned hides swell the total figure for exports of manufactures and give an exaggerated impression of the growth of industries and the pace at which it is proceeding. We shall revert to this topic in our survey of the main features of India's foreign trade. Here it is sufficient to say that the trade returns leave us in no doubt that the tendency towards industrial development is itself unquestionable and is growing with the passage of time. Indeed, there are some who, like Dr. Gilbert Slater, are alarmed at the present rate of progress which, they believe, threatens to be too fast for social and economic stability and tends to outpace the adoption of measures to prevent the evils of modern industrialism. This view, however, is not generally held, the predominant feeling being in favour of more rapid industrialization; for even to-day, about three-fourths of India's imports consist of manufactured articles, while raw materials including food-stuffs bear about the same proportion to her total exports.[3]

[1] Op. cit., p. 111.

[2] See Pillai, op. cit., p. 31.

[3] During 1929-30, the proportion of imported manufactured goods to total imports was 71·8 per cent as compared with 71·2 per cent during the preceding

(ii) We shall now proceed to discuss the second test which has been suggested, namely, the growth of towns.[1] The small number of towns and the insignificant proportion of the urban to the total population may be taken as an index of the industrial backwardness of the country. A statement has already been given showing the steadiness of the ratio of the urban population in India.[2] Over a long period the proportion of the urban to the total population has remained more or less unaltered and the urban population has grown only slightly more quickly than the total population of the country. In England, on the other hand, the development of new industries brought about a rapid urbanization of the population, of which seventy-eight per cent live in towns. From the point of view of the urbanization test, therefore, India has a tremendous amount of lee-way to make up.

29. **Modern forces influencing the growth of towns in India.**— We shall now consider the different forces acting on the growth of towns in modern India.

(i) Railways and navigation have brought into existence new commercial centres and have increased the importance of some of the old ones. In fact, one of the earliest results of British rule in India was the growth of the great mercantile centres, and we may say that the British have played the role of town-builders in India. Bombay, Karachi, Madras, Rangoon, Calcutta, Delhi, Lahore, Hubli and Bangalore serve as illustrations of the new commercial towns.

(ii) The growth of new industries in the west has meant the crowding of vast masses of population into mammoth towns and cities—a phenomenon not without its counterpart in India. The leading industries of the country have contributed to the conversion of villages into towns and towns into cities. Bombay, Ahmedabad, Sholapur and Hubli with their cotton mills, and Cawnpore with its woollen mills and leather factories are all creations of the new industrial era and owe their size and a substantial part of their importance to their respective staple industries. The rapid development of Jamshedpur since 1911, as a result of the expansion of the Tata steel and iron enterprise, is one of the romances of industrial achievement in India. The influence of industrial development on the growth of towns has not, however, been so powerful in India as

year and 76·6 per cent in the pre-War period. Conversely, in 1929-30 the proportion of manufactured goods exported from India was 27·06 per cent of India's exports as compared with 27·14 per cent in the preceding year and 23·1 per cent in the pre-War period (*Review of the Trade of India 1929-30*, Tables 4 and 9).

[1] See Gadgil, op. cit., ch. x.

[2] See p. 46.

in western countries. This is shown by the fact that out of the existing thirty-four Indian cities, containing more than a lakh of people, not less than twenty-two owe their importance, partly at any rate, to other than manufacturing or commercial activities, and also by the fact, brought out by the census of 1911, that only thirty per cent of the inhabitants of these cities were occupied in industrial pursuits.

(iii) Famines are among the causes which deplete the country-side and increase the volume of the urban population. It may happen that part of this addition is permanently absorbed by the occupations in towns, though most of it is certainly lost owing to people returning to their villages after the advent of the rains.

(iv) The creation of a class of landless labourers in the villages is the result of famines and the dispossession of the old peasant proprietors, and the transformation of the artisans into wage-earners. The existence of this class promotes urbanization to some extent, for the landless labourer is often ready to migrate to the towns if he can find employment there.

(v) The attractions of urban life have led wealthy landlords and other persons of substance to settle in towns. This incidentally encourages absentee landlordism.

(vi) Administrative centralization has increased the urban importance of the Taluka town in comparison with the village, of the District headquarters in comparison with the Taluka towns; and similarly in the case of Divisional headquarters, and Provincial, Imperial and State capitals.

(vii) Facilities for secondary and higher education are practically confined to the bigger towns, and parents often choose them as residences with a view to the education of their children.

30. **Influences making for the decline of towns.**—Side by side with this increasing urbanization, must be noticed the tendency of the older towns to be depopulated.

(i) Changes in regional values and diversion of trade routes have in many cases brought about the decline of towns which previously owed their prosperity to the command of river and road traffic, and are now superseded owing to railway extension, e.g. Mirzapur on the Ganges, Patna, Saugar, etc. The railway engineer cannot always contrive that the railway line should pass by the old urban centres, so that being left severely alone away from the main line, some of them have naturally dwindled in importance.

(ii) The decay of urban handicrafts, following in the wake of the disappearance of the old courts and the rise of the European competition, has brought about a decrease in the population in

old Indian towns like Dacca, Murshidabad, Mandalay, Tanjore, etc. Even sacred towns like Gaya and Benares are losing their importance and population as a result of the fall in the demand, on the part of the pilgrims, for the products of the old industries of these towns.

(iii) Diseases like plague and cholera periodically turn urban areas into charnel houses and drive the population away to the open country. This movement is, however, only temporary in character and is reversed with the restoration of normal conditions of health in the towns.

Taking into account the two opposite tendencies of the growth and decline of towns we reach the conclusion that they have so far just balanced each other, though in recent years the tendency to urbanization is slightly gaining the upper hand. This stands in marked contrast with what happened in England during the period of the Industrial Revolution. There the towns in the south decayed in a short time, but their loss was nothing in comparison with the rapid rise of vastly more populous urban centres in the north.

31. **'Sudden transition from local to international economy.'**— Professors Wadia and Joshi characterize the evolution, which we have described under the heading of Economic Transition, as a 'sudden transition from local to international economy'.[1] What is apparently meant to be conveyed by this is that the village became suddenly linked with the outside world; that international trade developed much faster than internal trade and that, as it was entirely uncontrolled and unregulated, it led to a one-sided, and on the whole injurious, development of the economic life of the country with the scales tipped heavily in favour of agriculture and against industry; that this development was a part of the general exploitation of the undeveloped tracts of the African and Asiatic continents at the hands of the leading powers of Europe; and that in permitting it the Government of the country paid no attention to true national interests. If it is thought necessary or useful to put some short descriptive label to all this, it should perhaps be *'sudden transition from self-sufficiency to international exchange'*, because the term 'international economy' implies that there is a 'world will' which 'ranks above national wills and in which they find expression'. At present, however, such a world will does not exist, and 'international relations are not regulated in accordance with an ideal of the human race, but according to the wills of the nations concerned'.[2] The nation is still the economic unit to-day and we

[1] Wadia and Joshi, op. cit., pp. 158-60.

[2] J. Grunzel, *Economic Protectionism*, pp. 3-4.

cannot talk of international economy until 'the national standpoint is transformed by universal or international considerations'.[1] In a truly international economy the sacrifice of any particular nation would be acquiesced in by the nation concerned and not imposed upon it by guile or force employed by some other nation. Also, the ultimate justification of such a sacrifice would invariably be the consideration that it would be to the eventual benefit not only of the world state in general but also of the individual state itself called upon to make a temporary sacrifice.

While we object to the phrase 'international economy', however, we are in general agreement with the view that the economic transition in India has been accompanied by many regrettable features. Though the change that has come about as a result of this transition is not wholly bad, yet, like the curate's egg, good in parts, it has brought along with it some unquestionable evils, such as the excessively one-sided nature of India's foreign trade, the rapid decline of her indigenous industries, the undue preponderance of foreign capital in her economic life, the excessive pressure on the land, etc. Indeed the development of a true national economy is, of all things, the most vitally important at the present juncture for the economic uplift of the country (it being understood that a national economy is not necessarily committed to the goal of self-sufficiency or to any particular policy whether of protection or of free trade, but chooses its course, whatever it may be, with the sole object of promoting national welfare).

32. **Is industrialization desirable for India?**—The movement towards industrialization has already made a fair start in India. And while the general trend of opinion is in favour of accelerating it, there are some who would, if they had their own way, nip it in the bud as being fraught with sinister possibilities for the country. Part of the opposition to industrialization comes from those who look with horror on all machinery because they believe that it inevitably degrades human life and work, and makes both mechanical and joyless. They yearn for a simple and primitive system of industry, under which there would be more air and sunshine, more elbow-room and greater freedom than can ever be possible under a regime of machinery. There is, however, generally a poetic vagueness and lack of actuality and substance about these visions of an ideally simple economic life, and we know as a matter of fact that they have never been actually realized anywhere at any time. We know, on the contrary, that manual labour can be very dull and heavy and brutalizing, and that man has improved his economic

[1] See Seligman, op. cit., pp. 81-2.

position and turned the earth into a more and more comfortable and desirable place of habitation for himself in the measure in which he has increased his mastery over nature, and this is essentially what the replacement of human and animal labour by machinery means.

Some people, while admitting the necessity of supplementing the labour of men and animals up to a certain limit, would draw a line beyond which they would not allow the domination of man over nature to go. They would stop, for example, at the windmill or the water-mill, or a simple wooden plough, or a *charkha* or spinning wheel, but they have no satisfactory answer to the question as to why these beginnings of human mastery over nature should not be followed up by a more complete domination.

The introduction of machinery and large-scale production of the modern type is no doubt apt to bring very serious evils in its train, such as overcrowding and the ruthless exploitation of the weak by the strong, and to compel large numbers of workers to lead cramped, squalid and distressful lives amidst unspeakably ugly and unhealthy surroundings. It is, however, not true that the only way of avoiding these evils is to dispense with modern methods of large-scale production. As western experience shows, it is possible very greatly to mitigate these evils by suitable state action and legislation. And it is significant that, although in the west there is profound discontent against the present economic organization, nobody of any consequence has proposed the abolition of machinery altogether. The discontent is directed more against the manner in which the wealth that is produced is distributed, than against the employment of machinery and the system of large-scale production.

We must indeed take care not to emphasize unduly the material side of life. But it is clearly necessary, in the case of a poor country like India, that the wealth *per capita* should be increased and her teeming millions lifted above the cares and worries of mere existence, in order that any kind of higher life should be possible for them.[1] And this cannot be done without the help of up-to-date methods of production. Moreover, it must be remembered that India can no longer remain isolated even if she wishes to, and she can only survive the onslaughts of foreign competition by forging the weapons of modern industrialism. The case for machinery has been recently well put by F. S. Marvin as follows: 'A machine is something which extends man's physical powers in dealing with nature, enables him to put more brains into longer and defter fingers and indefinitely strengthened muscles.

[1] For an excellent discussion of the proper attitude with regard to material progress in India, see Darling, *Rusticus Loquitur*, pp. 374 ff.

Any one who opposes this in principle, opposes the upward march of our species, nor can he draw even an intelligible line and say, so far it was right for man to strengthen himself but no further. Is it to be at the motor-plough or at the first simplest stick for scratching the ground, at the steel mechanical reaper or the stone-man's flint axe? There is no difference except of perfection and power. The real objections are to something quite different, the industrial town, the factory system and what is called "wage-slavery". But these are social arrangements modifiable at will, and in no necessary way bound up with our extended power over nature.'

Opponents of industrialism in India have sometimes taken a different line. They have pointed out that if industries are to be fostered in India, this will have to be at the expense of agriculture, the premier industry of India. This argument will be examined in our chapter on Industries in India. In the meanwhile we will content ourselves with the statement that industrial development, far from being antagonistic to agricultural development in this country, will have the most beneficial influence on it.

Lastly, it may be pointed out that the conviction about the necessity and desirability of rapid industrialization is growing apace in India, and those who set themselves in opposition to this tendency will find that they are engaged in a futile endeavour. They have no more chance of success in their attempt to stay the advance of the oncoming tide of industrialism than the excellent Mrs. Partington had in her unequal contest with the Atlantic which she so valiantly tried to push away with her mop.

CHAPTER VI

AGRICULTURE: PRODUCTION AND EXPORT

1. **The place of agriculture in Indian economics.**—The most striking characteristic of the economic life in India is the overwhelming preponderance of agriculture over other occupations, the great mass of human life and effort, represented by three out of every four persons in the country, being devoted to agriculture. Agricultural production provides practically all the food-grains consumed in the country, and yields large quantities of raw materials like cotton, jute, oil-seeds, etc., for the principal manufacturing industries. And yet a study of the present position of Indian agriculture must lead every one to endorse the gloomy words of Dr. Clouston, Agricultural Adviser to the Government of India, when he said, 'In India we have our depressed classes; we have, too, our depressed industries, and agriculture, unfortunately, is one of them.'[1] Judged by whatever standard—the size and the constitution of the holding, the implements and the fertilizers in use, the system of rotation of crops, the quality of the seeds, the position with regard to irrigation facilities and other land improvements, marketing organization, animal husbandry, subsidiary rural occupations, etc.,—our agriculture is in a hopelessly backward and stagnant condition, the result being under-production and excessively low outturn per acre, which at best is often only one-third or one-fourth of what is obtained in other lands, and which dwindles to nothing during times of drought and famine.[2]

2. **The need for agricultural development.**—The need for agricultural improvement is imperative from many points of view. It will lead to an improvement in the economic condition of the masses and raise their standard of living. It will ensure an adequate food supply for the population of the country. The reactions of improved agriculture on industry are no less important. The increased purchasing power of the rural masses will provide a large home market for absorbing the products of the home manufactures. Improvement in agriculture will necessarily imply a growing mechanization of its processes and may be expected to bring into

[1] *Agricultural Commission Report*, Minutes of Evidence, vol. I, evidence by the officers of the Government of India.

[2] Ibid., p. 14.

existence large manufacturing establishments to produce agricultural tools and machinery.[1]

We may, however, make two things clear here. In the first place, as already pointed out, the plea for improved agriculture does not mean that nature has destined India to be an exclusively agricultural country. In our opinion she is so situated that she can have a prosperous manufacturing industry as well as a thriving agriculture. In the second place, we must appreciate the fact that our agricultural problems cannot be solved in an isolated fashion without reference to our industrial problems, and we would do well to remember how, during the period of the Industrial Revolution in England, agriculture and industry were transformed side by side, progress in one helping progress in the other. The present congestion in Indian agriculture and the ruralization of the country are evils which cannot be overcome simply by a system of improved agriculture. A simultaneous development in industry is also necessary to relieve the pressure on land and to ensure a steady flow of capital from the cities and manufactures for investment in land.

The present Indian awakening may be regarded as a phase of the world-wide interest in agriculture which has been in evidence since the Great War. If there was noticeable, in the pre-War days, a certain tendency to forget the supreme importance of agriculture, the experience of the War has put an end to this indifference by exposing the dangers of dependence on foreign supplies in the matter of food and raw materials. Agriculture has again come into its own as a premier national key industry and much is being talked and written about its rehabilitation and advance in practically every country, not excluding England itself, the classic land of manufacturing industry.

3. Statistics of area under different crops in British India.[2]

TABLE I

	Acres (millions) 1901-2	Percentage of net area according to village papers	Acres (millions) 1930-31	Percentage of net area according to village papers
Net area by professional survey	552·92	...	669·34	...
Net area according to village papers	553·70	...	667·50	...
Area under forest ...	66·36	12·0	87·96	13·2
Not available for cultivation ...	137·96	24·9	146·81	22·0

[1] See *Industrial Commission Report*, p. 22.

[2] *Agricultural Statistics* (*British India*), 1930-31 (Provisional), pp. 2-3.

	Acres (millions) 1901-2	Percentage of net area according to village papers	Acres (millions) 1930-31	Percentage of net area according to village papers
Cultivable waste other than fallow	107·52	19·4	154·02	23·1
Fallow land	42·15	7·6	49·62	7·4
Net area sown with crops ...	199·71	36·1	229·09	34·3
Total sown area (includes areas sown more than once)	220·35	...	261·91	...
Area irrigated	32·58	...	49·70	...

	Acres (millions) 1901-2	Percentage of total sown area	Acres (millions) 1930-31	Percentage of total sown area
Area under food-grains—				
Rice	70·07	31·8	80·63	30·8
Wheat	18·61	8·4	24·80	9·5
Barley	6·22	2·8	6·70	2·5
Jowar	21·82	9·8	22·81	8·7
Bajra	13·20	5·9	13·70	5·2
Ragi	3·75	1·7	3·97	1·5
Maize	6·20	2·8	6·46	2·5
Gram	9·78	4·4	13·64	5·2
Other grains and pulses ...	27·35	12·4	30·03	11·5
Total food-grains ...	177·00	80·0	202·74	77·4
Area under other food crops (including vegetables, fruits, spices, miscellaneous food crops, etc.)	8·03	3·7	8·24	3·2
Sugar	2·60	1·3	2·87	1·1
Total food crops ...	187·63	85·0	213·85	81·7
Area under oil-seeds—				
Linseed	2·27	1·0	2·00	0·8
Sesamum (*til*)	3·75	1·7	3·64	1·4
Rape and Mustard ...	2·88	1·3	3·30	1·3
Groundnut	...	...	5·30	2·0
Coconut	...	...	·64	0·2
Castor	...	...	·45	0·2
Other oil-seeds	3·07	1·4	1·12	0·4
Total oil-seeds ...	11·97	5·4	16·45	6·3
Area under fibres—				
Cotton	10·30	4·7	14·20	5·4
Jute	2·28	1·0	3·40	1·3
Other fibres	0·56	0·2	·72	0·3
Total fibres ...	13·14	5·9	18·32	7·0

	Acres (millions) 1901-2	Percentage of total sown area	Acres (millions) 1930-31	Percentage of total sown area
Area under other non-food crops—				
Indigo	0·79	0·4	0·07	0·03
Opium	0·61	0·3	0·04	0·02
Coffee	0·12	0·05	0·09	0·03
Tea	0·49	0·3	0·78	0·30
Tobacco	0·95	0·45	1·11	0·42
Fodder crops ...	2·94	1·4	9·30	3·50
Miscellaneous crops ...	1·71	0·8	1·90	0·70
Total non-food crops ...	32·72	15·0	13·29	18·3
Total sown area ...	220·35	...	261·91	...
(includes area sown more than once)	20·64	...	32·82[1]	...

4. **Estimated yield and area of principal crops (includes also crops in certain Indian States).**[2]

TABLE II

	Yield (millions) 1901-2	Yield (millions) 1930-31	Area (millions of acres) 1930-31
Rice ... ... tons	19·21	32·03	82·43
Wheat ... ... ,,	6·09	9·30	32·18
Jowar ... ... ,,	...	6·51	33·10
Bajra ... ... ,,	...	2·36	13·77
Gram ... ... ,,	...	3·37	12·40
Raw Sugar ... ,,	2·02	3·20	2·78
Tea ... ... lbs.	191·30	391·08	0·80
Cotton (bales 400 lbs.)	3·56	4·91	23·83
Jute (,,)	7·43	11·20	3·49
Linseed ... ... tons	0·35	0·38	3·02
Rape and Mustard ... ,,	0·95	0·99	6·59
Sesamum ... ,,	0·35	0·53	5·56
Castor seed ... ,,	...	0·12	1·45
Groundnut ... ,,	0·06	3·11	6·37
Indigo ... ... cwts.	0·11	0·01	0·06
Coffee ... ... lbs.	15·57	32·93	0·16
Rubber ... ... ,,	...	24·35	0·17

5. **Scope for intensive and extensive cultivation.**—From Table I, it would appear that 35·2 per cent of the total area is not available for cultivation, that only 34·3 per cent of the total area is actually

[1] Includes triple cropped area of 67 acres (in Burma).

[2] *Estimates of Area and Yield of Principal Crops in India* (1930-31), pp. 8 d 25-9.

sown, and that putting together the current fallow and the cultivable waste about 30·5 per cent of the total area is available for extending cultivation in India. The area available in different provinces (British Indian) for extending cultivation may be seen from Table III below, which shows in millions of acres the area cultivated and uncultivated in .1930-31 in each province.[1]

TABLE III

Province	Net area according to village papers	Cultivated		Uncultivated		Forests
		Net area actually sown	Current fallows	Cultivable waste other than fallow	Not available for cultivation	
Madras ...	91·03	34·22	10·33	12·92	20·19	13·37
Bombay ...	78·88	32·62	10·51	6·78	19·85	9·12
Bengal ...	49·19	23·46	5·57	5·98	9·59	4·59
U.P. ...	67·97	35·52	2·59	10·65	9·94	9·27
Punjab ...	60·18	26·68	3·99	14·83	12·71	1·97
Burma ...	155·85	18·02	3·80	59·79	52·99	21·25
Bihar and Orissa ...	53·17	24·47	6·35	6·89	8·12	7·34
C.P. and Berar ...	64·18	25·36	3·35	14·16	4·94	16·37
Assam ...	35·30	5·98	1·95	18·95	4·57	3·85
N.-W.F.P.	8·57	2·08	0·81	2·69	2·63	0·36
Ajmer-Merwara	1·77	0·32	0·18	0·31	0·87	0·09
Manpur Pargana (C.I.) ...	0·03	0·01	...	0·00	...	0·02
Coorg ...	1·01	0·14	0·17	0·01	0·33	0·36
Delhi ...	0·37	0·21	0·02	0·06	0·08	...
Total ...	667·50	229·09	49·62	154·02	146·81	87·96

There is apparently considerable scope for further cultivation, especially in Burma, Assam, Sind (Bombay), the Punjab and the Central Provinces. But on a close examination of the question, the

[1] *Agricultural Statistics* (1930-31) Provisional, p. 4.

conclusion is forced on us that the prospects of extensive cultivation are on the whole very limited in India. In the older provinces like Bengal, United Provinces, Madras and Bombay proper, cultivation has naturally followed the line of least resistance, and the better kinds of land have already been brought under the plough, and for the greater part inferior soils alone remain to be broken up for cultivation. In the majority of cases this can only be done provided adequate irrigational facilities are forthcoming. A similar situation is gradually developing in the newer provinces like the Punjab, Central Provinces, Assam, Burma and Sind, where, though the superior lands have not yet been fully occupied, several difficulties have to be faced. The problem of extending cultivation in the Punjab and Sind is primarily one of irrigation, which no doubt is easier there than, for instance, in the Bombay Deccan and Central Provinces, but which must all the same reckon with very definite financial and physical limitations. In Assam, apart from its unhealthy climate, the principal obstacles are uncongenial conditions of labour and the consequent difficulty of recruiting the required labour supply. In Burma, the growth of a strong provincial feeling with its watchword of 'Burma for the Burmese' militates against rapid extension of cultivation which, under the present circumstances, is only possible with the help of labour drawn from outside. Thus no very striking extension of cultivation can be expected even in those provinces where there is a large area of cultivable waste. This conclusion is borne out by the following figures, which show that in more recent years progress made by the net area sown with crops in British India has been very slow and gradual.

Year	Net area sown (in millions of acres)
1892-3	195·91
1901-2	199·71
1910-1	223·06
1921-2	223·18
1927-8	223·86
1928-9	228·17
1930-31	229·09

A more hopeful solution of the Indian agricultural problem lies in the direction of intensive cultivation. As an illustration of the possibilities of intensive cultivation we might cite the instance of Japan, where a population of 56,000,000 is supported on a cultivated area of 17,000,000 acres, which comes to about one-third of an acre per head as against India's five-sixths of an acre.[1] In India, we

[1] See M. Visvesvaraya, *Reconstructing India*, p. 174.

have scarcely yet made a serious beginning in intensive cultivation on modern scientific lines in spite of the fact that methods of extensive cultivation are highly inappropriate owing to the large size of the agricultural population and the prevalence of small holdings.

6. **Relative importance of crops.**—Crop-production holds far and away the most important place among the agricultural products of India. 'The people are largely vegetarian, while seeds and fibres are the most important articles of export. The Indian cultivator is a grower of crops, his live stock are mere aids in cultivation and in the feeding of his family. The country does not export meat, wool or dairy products.'[1] The areas under the different crops show the varied character of agricultural production in India—which enables the country to be self-sufficing in respect of its food supply and a large variety of raw materials—and the relative importance of the different crops. Food crops preponderate largely and account for 81·7 per cent of the total sown area and non-food crops account for 18·3 per cent, though the area under the non-food crops like cotton, jute, oil-seeds etc., tended to increase faster than that under food crops when the position of world-prices justified this. Among the food crops, rice stands easily first; then come wheat, jowar, bajra and gram. Among the non-food crops, fibres (cotton, jute and others) are the most important group and account for 7·0 per cent of the total sown area. Cotton is by far the most important of the fibres. Oil seeds come next and account for 6·3 per cent of the total sown area.

7. **A survey of the principal crops of India.**[2]**—I. Food crops.**—(i) *Rice.*—Rice is the leading crop of India as it is the staple food of most of the people of the country, and it occupies over 30 per cent of the whole cultivated sown area, the total area devoted to its cultivation being 82·42 million acres yielding 32·03 million tons in 1930-31. India's contribution to the world production of rice is about 40 per cent and she is the largest exporter of rice in the world, though her average exports seldom exceed 7 to 8 per cent of her total production. Rice is grown extensively in India, especially in the wet and moist regions. The following figures illustrate the

[1] A. Howard, *Crop-Production in India*, p. 61.

[2] For this survey we have consulted—

(i) *Review of Agricultural Operations in India* (1926-7) and (1928-9).
(ii) *Estimates of Area and Yield of the Principal Crops in India* (1930-31).
(iii) *The Crop Atlas of India* (1925).
(iv) Cotton, *Handbook of Commercial Information* (2nd Edn., 1924).
(v) Howard, *Crop-Production in India.*
(vi) *Agricultural Commission Report.*

extent of its cultivation in the different provinces: Bengal, 20·58 million acres; Bihar and Orissa 13·93, Burma 12·91; Madras 11·68; United Provinces 6·75; Central Provinces 6·72; Assam 4·65; and Bombay 3·46. Rice is the staple food of the eastern provinces and Burma. Although Burma carries only 15 per cent of the total acreage under rice she has practically the monopoly of the export trade in rice and also makes good any shortage in the supply for local consumption in other parts of India, because the ratio of acreage under rice to population is so high in Burma that her exportable surplus is far larger than that of Bengal, Bihar or Madras, which grow more rice but have to meet a much higher internal demand. The Burma trade represents 88 per cent of the total exports or about 50 per cent of the total production in Burma. Burmese exports are increasing, while the proportion of Indian exports proper is declining. India exported 2,326,000 tons of rice worth 31·50 crores of rupees in 1929-30. The quantity exported declined to 2,279,000 tons, and the value to 25·97 crores in 1930-31. The fall in the price of rice, largely the result of the trade depression, was catastrophic for the rice trade. Exports from India (including Burma) formed 7·2 per cent of the total production. Rice is a winter crop being mainly harvested in December and January. There are different varieties of paddy grown in different parts of India depending upon local conditions and knowledge. It is probably due to the magnitude and complexity of the subject that little progress has so far been made with this crop by the Agricultural Departments.[1]

(ii) *Wheat.*—Wheat stands next to rice in acreage, covering as it does about 10 per cent of the total cultivated area. Wheat is a rabi crop in India and is sown from October to December and harvested from March to May. It is the staple food of the people in the Punjab, United Provinces and North-West Frontier Province. Elsewhere it is grown mainly for export. The total area under wheat in India was 32·18 million acres in 1930-31. The principal wheat-producing provinces in India are the Punjab 10·64 million acres, United Provinces 7·73, Central Provinces and Behar 3·13, Central India States 1·94, Bombay 2·81, and Bihar and Orissa 1·21. The United Provinces and Punjab account for nearly two-thirds of the total area and three-fourths of the total yield. 'India produces about one-tenth of the world's wheat. The five principal countries exporting wheat in pre-War times were the United States, Russia, Canada, the Argentine Republic and India, in that order. As regards production, India occupies the third place' (Cotton). During the War there was

[1] J. Mackenna, *Indian Agriculture*, p. 46.

a considerable extension in the area under wheat in India, from 28·47 million to 35·48 million acres, on account of the purchases made by Government. The export trade in wheat had been growing since the opening of the Suez Canal in 1870. The exports of wheat, however, fluctuate considerably according to the nature of seasons in India and abroad. In years of famine the local price is generally so high that the volume of export falls to a very low figure. The average export for five years before the War was 1,308,000 tons valued at Rs. 13·96 crores, or 14 per cent of the total wheat production. Since then, especially in the post-War years, the exports of wheat have fallen considerably, being only 176,000 tons valued at Rs. 2·71 crores, and 300,000 tons valued at Rs. 4·40 crores, or 2 per cent and 4 per cent of the total production in the years 1926-7 and 1927-8 respectively. In 1929-30, exports fell to the negligible figure of 13,000 tons valued at Rs. 21 lakhs, representing 1 per cent of the total production. There was some recovery in wheat exports in the year 1930-31, the quantity exported being 197,000 tons valued at Rs. 195 lakhs, representing 2 per cent of the total production. This was due mainly to the bumper crop of 1929-30 when a record outturn of 10·5 million tons was attained.

This general tendency towards a decrease of wheat exports is so pronounced that the Agricultural Commission anticipate its total cessation within a few generations. In fact India shows signs of becoming in future a wheat-importing country. Very recently, she has begun to import considerable quantities of wheat from abroad (Australia). The net imports of wheat amounted to 370,000 in 1928-9 and 268,000 tons in 1929-30. The importation of wheat in these two years has been regarded by some authorities as evidence of an increase in the consumption of wheat in India, which has been estimated approximately at 8,500,000 tons by Sir Frank Noyce.[1] Though there has been a slight increase in the balance available for consumption in the post-War period as compared with the pre-War average (8,043,000), imports of 1928-9 and 1929-30 do not appear to be due so much to any increase in the consumption of wheat as to the inadequacy of the crops in 1927-8 and 1928-9.[2] The gross

[1] The growth in internal consumption does not necessarily indicate a rise in the standard of living and is largely explained by the natural growth of the wheat-eating population. See Brij Narain, *Indian Economic Life*, pp. 437-41.

[2] The balance available for consumption is not the same thing as actual consumption, as stock figures have perforce to be neglected in the absence of any reliable data. The balance available for consumption in 1930-31 was 10,437,000 tons as compared to 8,850,000 in 1929-30. This considerable increase probably meant an inflation in the stocks held in the various markets in India. See *Review of the Trade of India* (1929-30 and 1930-31).

imports of wheat during 1930-31 amounted to 232,000 tons valued at Rs. 215 lakhs. Imports of wheat on this comparatively large scale when India had a bumper crop was a remarkable feature of the trade last year. The reason for this is simple. It was all a matter of price. Australian wheat could be placed in the seaport towns of India at lower prices than those which had to be paid for Indian wheat brought long distances by rail from the upcountry producing areas. In order to help the wheat growers of India, particularly those in the Punjab, the Government of India have allowed certain reduced railway freights and have passed the Wheat (Import Duty) Act (March 1931) which levies a high import duty of Rs. 40 per ton on foreign wheat.[1] The progressive over-production of wheat in relation to demand in the world during and since the War and the slump in prices of primary products in recent years of the economic depression are responsible for the phenomenal fall in the prices of wheat, those in 1930-31 being the lowest recorded in the last thirty years. The bumper crop in India of 1929-30, competition of foreign wheat in international markets (which accounts for the weak export demand in spite of a large exportable surplus in 1930-31) and the competition of Australian wheat in the Indian wheat markets themselves explain the unsatisfactory condition of the wheat trade in India in recent years.

Wheat cultivation has received a considerable stimulus from improved transport and irrigation, especially in the case of the new canal colonies in the Punjab. At one time Indian wheat had the reputation of being dirty, but this was not due so much to careless threshing or handling as to deliberate adulteration to conform to the practice of the English grain trade. Since 1907, there has been a considerable improvement in this respect. The introduction of the Pust 12 variety by the Agricultural Department has improved the quality of the grain, which, however, must be further raised and kept up to enable Indian wheat to obtain the same prices as Canadian and American wheat in the world markets.

(iii) *Barley*.—This is chiefly grown in the United Provinces (4·22 million acres) and Bihar (1·36). There is only a small export of barley because the internal demand is very great. In 1929-30 exports dwindled down to 1,000 tons valued at Rs. 1 lakh. Barley is used as food both for man and cattle.

(iv) *Millets*: *Jowar and Bajra*.—There are two varieties of Indian millet, jowar and bajra, and they constitute an important

group of food crops for the masses of Madras, Bombay (Deccan), and the adjoining districts of Hyderabad. They supply also valuable fodder for the agricultural cattle. They do not need as thorough a cultivation as wheat and are rarely manured. There is a large area under them, 33·09 million acres under jowar, and 13·77 millions under bajra, in 1930-31, in the whole of India. The principal jowar-growing provinces are Hyderabad (Deccan), 9·59 million acres; Bombay 9·19; Madras 4·76; Central Provinces (Berar) 4·72; and United Provinces 2·51. So also bajra is extensively grown; in Bombay 5·78 million acres; Madras 2·91; Punjab 3·24; United Provinces 2·02; and Central Provinces 1·39. Bajra is a kharif crop while jowar is a kharif as well as a rabi crop. There is no considerable export of either of the millets. In 1929-30, 15,000 tons of jowar and bajra valued at Rs. 25·13 lakhs was exported from India. These exports declined to 7,000 tons valued at Rs. 8 lakhs in 1930-1.

(v) *Pulses.*—These are extensively grown throughout India and figure prominently in the dietary of the people. They are chiefly grown in United Provinces, Punjab, Bombay, Central Provinces, Bengal, etc. Gram is easily the leading pulse in India, and in 1930-31, no less than 12·40 million acres were under it, United Provinces (5·10) being the most important province in this respect. Exports of pulses are comparatively limited on account of the large internal demand. In 1930-31, 82,000 tons valued at Rs. 105 lakhs was exported.

(vi) *Other food crops.*—These include fruit and vegetables, condiments and spices and miscellaneous food crops, accounting for a total area of 8·24 million acres in 1930-31. Fruits and vegetables, including root crops, accounted for 5·15 million acres. India grows a variety of fruits such as mangoes, apples, oranges, plums, peaches, apricots and pears. The dearness of fruit owing to shortage of supply and the general poverty of the masses have prevented any considerable development of the fruit industry. There is a large variety of vegetables grown in India, potatoes, onions, brinjals, cabbages, cauliflowers, turnips, tomatoes, etc. A considerable extension of area under fruit and vegetables is possible with suitable irrigation facilities, especially in areas adjoining the larger cities. The Agricultural Departments have on the whole not yet been able to fulfil the expectations of a new era of abundant supply of fruit and vegetables. Very notable success has, however, been achieved in the Peshawar valley, and now that four other provinces have horticulturists on their agricultural staffs, we may expect more systematic attention being given to fruit culture. The larger urban centres constitute the principal market for the

commercial fruitgrower, but the difficulties of transport at present make it impossible for him to profit by their demand. Development of transport facilities, careful picking and packing, provision of cold storage facilities are obvious reforms that are indicated.[1] Condiments and spices accounted for 1·37 million acres in 1930-31. Spices are chiefly grown in the extreme south of India, though certain varieties are cultivated everywhere. Pepper (in Malabar, Travancore, south Canara, Coorg and to some extent in Bengal, etc.); chillies (chiefly in Madras, eastern and northern Bengal, some districts in Burma and Bombay); ginger (Malabar coast, Surat and Thana districts of Bombay and a few districts of Bengal and United Provinces); cardamon (in the humid forests of western and southern India, Madras, Travancore, Mysore, Coorg and Bombay—chiefly the Canara district); betel-nut (southern India and Burma); cinnamon (Western Ghats in Southern India); and cloves (chiefly in the foot-hills of the Western Ghats in the Madras Presidency) are the chief among the spices of India. There is some export trade in them, which amounted to 342,000 cwts. valued at 1·27 crores of rupees in 1930-31.

(vii) *Sugar*.—'India was probably the original home of sugar-cane and the area of sugar is larger than in any other country in the world. But the average yield per acre is so low and the demand from a population that is largely vegetarian is so great that the country depends to an increasing extent upon imports of cheap foreign sugar' (Cotton). India imported 1,003,000 tons of sugar of all sorts valued at 10·96 crores of rupees in 1930-31, as compared with 1,011,000 tons valued at 15·77 crores of rupees in the previous year.[2] It is stated by the Indian 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. The imports of Austrian and German beet-sugar were gradually replaced—thanks to the countervailing import duties on bounty-fed German sugar imposed in 1903—by growing imports of cane-sugar from Java and Mauritius. This foreign competition has hit Indian sugar-cane hard and, in the years preceding the War, there was some decline in the area under cultivation. The ground lost was regained to some extent by 1918-9 under the stimulus of the War-time rise in values. The area under cane has remained very steady over a series of years, the average during the last twenty years being 2,840,000 acres. The total area under sugar-cane was 2·78 million

[1] *Review of Agricultural Operations in India* (1927-8), p. 4, *ibid* (1928-9), pp. 65-67 and *Agricultural Commission Report*, pars. 515-9.

[2] The decline in value was the result of a big drop in sugar prices.

acres in 1930-31. The chief cane-growing provinces are: United Provinces 1·49 million acres, Punjab 0·42, Bihar and Orissa 0·28, Madras 0·11, Bombay 0·09 and Assam 0·033. Thus northern India has a predominant interest in the crop. Though the area in southern India is small, the cane grown there is much thicker and finer than in northern India. In India, the manufacture of white sugar is not common. The juice is boiled down without removing the molasses and the product called *gur* or *gul* is consumed as such. Sugar-cane is now crushed by iron crushers which have largely replaced the old wooden ones. White sugar is manufactured at a number of factories especially in the United Provinces and Bihar and Orissa. Bombay has also recently made a beginning in this direction.[1] The Indian refined sugar industry is, however, not in a prosperous condition. This is due to several handicaps such as the competition of foreign sugar, low yield per acre of sugar-cane, absence of up-to-date methods of extracting juice, poor yield of molasses, difficulty of getting a sufficiently large supply of cane from near the factory and the heavy capital charges of the undertakings. The fall in sugar prices during post-War years, in spite of the tariff increases applied from time to time in India, has also increased the difficulties of the industry. This fall has been brought about mainly by overproduction of sugar, as compared with effective demand, caused by War conditions which stimulated intensive cane production in Cuba and elsewhere in the West Indies, and has been aggravated by the tariff arrangements in various countries. In India prices were driven to unremunerative levels in the year 1930-31 owing to bulk of the Java sugar being thrown on the Indian markets in consequence of the normal trade relations between Java and China being disturbed by the slump in silver prices. Thus the sugar producer in India was adversely affected. The European beet-sugar industry is also being vigorously revived since the War under the stimulus of heavy subsidies and high tariff barriers, and is dumping its output in the world's markets. The production of refined sugar in the season of 1929-30 amounted to only 111,000 tons. Owing to the growing consumption of imported

[1] There are at present in India 29 factories capable of manufacturing white sugar direct from cane. There are also 14 refineries which manufacture white sugar mainly from *gur*. The total output of white sugar amounts to about 100,000 tons annually. To this must be added about 200,000 tons manufactured annually by the common indigenous process known as the *bel* method. See *Report of the Tariff Board* (Sugar Industry), 1931, par. 14. Owing to the recent (1932 April) grant of protection to the sugar industry preparations have been made to open 24 new factories in northern India. See the Viceroy's Speech before the Legislative Assembly, September 5, 1932.

white sugar in preference to *gur*, sugar-cane cultivation is, as remarked above, barely stationary. Government have taken up the question, and since 1901-2 sugar-cane has been subjected to a systematic study with a view to improving its quality and the supply of canes, and recently a cane-breeding station has been started at Coimbatore in Madras. The Government of India appointed a Sugar Committee in 1919 to investigate the possibility of organizing and developing the sugar industry in India. In 1921 the Committee published their report which recommends the organization of the sugar industry on the Java model with suitable modifications and with the help of a Sugar Board. It is also suggested that there should be an Imperial Research Institute with three divisions—agricultural, chemical and engineering—to control work in the research stations in the various provinces. The Sugar Board would guide the Research Institute and advise Government on all matters regarding the sugar industry. A Sugar School forming an integral part of the Institute to train and qualify men both in the field and the factory has also been proposed. The question of granting protection to the sugar industry was recently (1930) referred to the Tariff Board by the Government of India on the representations made by the newly established Imperial Council of Agricultural Research (See chap. XI below), with the double object of protecting India against unlimited foreign competition and stimulating the indigenous sugar industry. The Council acted on the advice of its Sugar Committee set up to suggest the steps to be taken to assist the Indian sugar industry. The Tariff Board in their report published in March 1931, recommended the grant of protection to the industry, being satisfied that the conditions laid down in this behalf by the Indian Fiscal Commission were fulfilled in the case of the sugar industry. They expressed the view that in the national interest the area under sugar-cane should not be allowed to diminish and that a fresh outlet should be provided for cane by encouraging the expansion of the white sugar industry. Unless steps were taken to develop this industry, they apprehended a disastrous slump in the *gur* market which would seriously affect the agricultural classes.[1] The Board, while disapproving of the grant of bounties on administrative grounds, proposed a protective duty of Rs. 7-4 per cwt. for the first seven years and a duty of Rs. 6-4 per cwt. for the next eight years, thus ensuring protection to the industry for a period of fifteen years. This immediate increase of the duty of Rs. 1-4 per cwt. was made in the Budget for 1931-2

[1] *Report of the Tariff Board on the Sugar Industry*, ch. IV, especially pars. 43, 45-6.

as a provisional measure of securing additional revenue, pending consideration of the Tariff Board's recommendations.[1] This was done in April 1932 when the Central Legislature passed the Sugar Industry Protection Act (1932). The protective duty (Rs. 7-4 per cwt.) is in the first instance to have effect up to 31 March 1938, but may be enhanced, if necessary during the currency of the Act. This should serve as a big stimulus to the industry and signs are already discernible that an era of expansion and prosperity is near at hand.

The Tariff Board considered it vital to the success of their scheme of protection that the agricultural and scientific aspects of the industry must be kept in prominence. They therefore recommended an annual grant of Rs. 10 lakhs to the Imperial Council of Agricultural Research for the purpose of research in connexion with sugar-cane. The Board have no objection to the grant of loans by Government, should this form of assistance appear desirable in a particular instance subject to the reservation that no such assistance or subsidy or other facility should be given to any sugar factory the directorate of which does not contain a fair representation of Indian interests and which does not offer opportunities to Indian investors to subscribe to the share capital of new companies.[2] It is necessary to bear in mind that raw *gur* is produced and consumed in India on a large scale (3·18 million tons in 1930-31), and hence attention must be given to the indigenous industry of *gur*-making as well as to the production of cheap white sugar. The Agricultural Departments and especially the Imperial Coimbatore Cane-breeding Station are concentrating their efforts on the increase of outturn by introducing improved varieties of cane. This class of work may be regarded as common to both aspects of the question. It is hardly necessary to add that there is only a negligible export of raw sugar, which in 1930-31 amounted to 1,000 tons valued at 2·51 lakhs of rupees and which is sent to Ceylon, the Straits Settlements and Fiji for the Indian population there.

II. Non-food crops.—(i) *Coffee.*—The origin of the coffee industry in India is obscure. It is, however, commonly believed that it was introduced into India in the sixteenth century by Bâba Budan returning from his pilgrimage to Mecca. It is, however, only from 1830 that the systematic cultivation of coffee dates. A large area was put under coffee in Mysore, Coorg and the Nilgiris. The industry reached its zenith in 1862. After this date decline

[1] See Chapter on Finance and Taxation (Vol. II).

[2] See *Report of the Tariff Board* (Sugar Industry), 1931, par. 105.

set in owing to the appearance of the destructive beetle. Latterly also the import of cheaper Brazilian coffee in the European markets has adversely affected Indian cultivation, which has gone down. In some of the coffee-growing areas, coffee has been replaced by tea. In 1930-31 the area under coffee in the whole of India was 160,900 acres, the principal regions being the Mysore State 82,400, Madras 38,400, Coorg 37,500, Cochin 1,800, Travancore, and to a smaller extent, Burma and Bombay. In 1930-31, 293,000 cwts. was exported from British India, valued at 1·92 crores of rupees.

(ii) *Tea.*—Perhaps with the single exception of China, India is the largest tea producer in the world. During the latter half of the eighteenth century, Chinese tea formed an important and lucrative branch of the export trade of the East India Company. Towards the end of the century a suggestion was made to develop an alternative source of supply in India. It was, however, only in 1834 that the matter was taken up seriously at the instance of Lord William Bentinck. Government plantations growing Chinese seed were established in Assam, the existence of the indigenous plant in Assam being yet unknown. In 1852 it was finally established that Indian tea could compete with Chinese tea in the London market. In view of its rapid progress, Government connexion with the industry ceased in 1865 and it has since been financed and managed by European capitalist companies. The tea industry has enjoyed a long spell of prosperity with growing internal consumption and foreign exports. In 1930, the area under tea was 805,800 acres, of which Assam contributed 433,800, Bengal 199,300, Madras 70,600, Punjab (Kangra) 9,700, United Provinces 6,100 and Travancore 69,200, and the total yield was 391·08 million lbs. 'Every garden of any importance has its own factories, where tea is prepared for the market, as it is essential that the various processes should be carried through immediately after the leaf has been plucked. The better organized factories are elaborately equipped with highly specialized plant and are under the supervision of expert tea makers.' There is a very large export trade in tea, especially with the United Kingdom, which takes about 85 per cent of the Indian exports. In 1929-30, 376·63 million lbs. valued at Rs. 26·00 crores was exported. The exports declined to 356·24 million lbs. valued at Rs. 23·56 crores in 1930-31. On the whole, however, the tea industry was not depressed in this year to the same extent as most other industries. Tea is thus an important staple export. The consumption of tea in India also is rapidly growing, thanks to the activities of the Indian Tea Association, to which the proceeds of a small cess, levied since 1903 at

the request of the industry, are handed over. The Association utilizes a part of these to push forward the sale of Indian tea in foreign markets.

(iii) *Oil-seeds.*—India grows a variety of oil-seeds, such as linseed, sesamum, rape and mustard, groundnut, coconut, castor, cotton seed, *mowra,* niger, coriander, cummin, *ajwan* and *kardi.* They accounted for a total area of 16·45 million acres in British India in 1930-31. A large quantity is exported annually. In 1929-30, 1,195,000 tons of oil-seeds valued at 26·47 crores of rupees were exported. Compared with the pre-War average for five years, there was a decrease of 18 per cent in quantity but an increase of 9 per cent in value. The total exports of oil-seeds declined to 1,037,000 valued at Rs. 17·86 crores in 1930-31 and showed a decrease of 13 per cent in quantity and 33 per cent in value over the preceding year, mainly owing to adverse economic conditions abroad. The proportion to total production of oil-seeds exported varies considerably with the different seeds. Linseed, for instance, is grown largely for export, but the export of rape and mustard, and sesamum declined from the pre-War average of 23 per cent and 25 per cent, to 4 per cent and 2 per cent in 1929-30, and to 4 per cent and 0·2 per cent in 1930-31 respectively. The export of groundnut, which was 35 per cent of the total production in the pre-War average for five years, after declining to 12 per cent during the War, again increased to 27 per cent in 1929-30. There was, however, a very striking absolute increase in the quantity exported, from 212,000 tons valued at Rs. 3·52 crores in the pre-War years to 714,000 tons valued at Rs. 16·39 crores. The exports declined to 601,000 tons valued at Rs. 9·67 crores representing 20 per cent of the total production in 1930-31. Thus groundnut is to-day the leading type among the oil-seeds group. In the aggregate the exports of oil-seeds form a large item in India's foreign trade, occupying the fifth place among the exports. It is felt that India does not yet make the best use of her oil-seed resources, though attempts have been made to develop a local oil-crushing industry.[1]

In the west, vegetable oil is put to-day to many uses; for example, in America cotton seed is crushed, the oil used for edible purposes, and the cake as manure or cattle food, whereas in India a large proportion of cotton seed is exported.[2] The export trade in oil-seeds which is mainly with the continental countries has been considerably affected by the forces generated by the War. Apart

[1] See Chapter on Indian Industries.

[2] See Anstey, op. cit., p. 71.

from the collapse of the European demand, the War brought about a change in the conditions of the oil-seeds trade. By stimulating the development of refining processes it increased considerably the interchangeability of oils; for example, palm and rapeseed oils were thus added to the category of edible oils. It also developed many other sources of oil-seeds. This has, to some extent, naturally affected India's favourable position in the pre-War period. Indian linseed has now to meet the competition of Argentine linseed, the area under which has been steadily increasing for the last twenty years unaffected by the War. In sesamum, the Chinese competition, and in groundnut the West African, has now to be reckoned with by Indian exporters. Other vegetable products grown in China, South America and West Africa are also being exploited to produce oils. Lastly, rape and mustard have been displaced to some extent by groundnut.[1]

We may now briefly notice the principal oil-seeds grown in India:—

(*a*) Linseed is cultivated for its seed and not for its fibre. The bulk of the seed and the resultant oil and cake are exported. The total area under linseed was 3·02 million acres[2] in 1930-31 (Central Provinces 0·81, Bihar and Orissa 0·65, United Provinces 0·95, Bombay 0·12, and Bengal 0·12). In 1930-31, 257,000 tons of linseed valued at Rs 5·4 crores were exported as compared with the pre-War average of 380,000 tons valued at Rs. 7·9 crores.

(*b*) Sesamum, variously known as *til* or *jinjily*, is grown practically in all the provinces, especially Burma 1·29 million acres, Madras 0·75, Central Provinces 0·55, Bombay 0·67, Hyderabad (Deccan) 0·59, United Provinces 1·10, Punjab 0·12 and Bengal 0·15. The total area was 5·56 millions in 1930-31.[3] About 50 per cent of the world's supply is provided by the British Empire, and India contributes half of this. Exports have experienced a serious fall in recent years, and amounted to only 1,000 tons valued at Rs. 3·48 lakhs in 1930-1.

(*c*) Rape and mustard together accounted for 6·59 million acres in 1930-31 (including 3·23 million acres of mixed crop in the United Provinces), the principal areas being United Provinces 3·47 (including mixed crop), Bihar and Orissa 0·66, Bengal 0·77, Punjab 0·92, Bombay 0·2, Assam 0·36. In the pre-War period about 20 per cent of the total production was exported. Now the proportion has

[1] See *Encyclopædia Britannica*, thirteenth edition, article on Oils and Fats; and Gadgil, op. cit., pp. 232-4.

[2] Includes 0·64 million acres of mixed crop in United Provinces.

[3] Includes 0·85 million acres of mixed crop in United Provinces.

fallen to less than 10 per cent, being 9 per cent in 1928-9 and 4 per cent in 1929-30 and 1930-31.

(*d*) Groundnut is one of the most important oil-seeds and has shown striking expansion in recent years. The total area of 6·36 million acres in 1930-31, as compared with 1·40 million acres in 1918-9, was mainly distributed as follows: Madras 3·57 millions, Bombay 1·54, Burma 0·56 and Hyderabad 0·69. The crop is assuming an economic importance of the first magnitude in some of the provinces and is competing even with cotton. There was a considerable decline in exports and area about the end of the last century on account of marked deterioration of the indigenous varieties. The successful introduction of disease-resisting exotic varieties from Senegal and Mozambique, however, has led to recovery and steady expansion since 1901. Considerably more than half (in recent years almost three-fourths) of the crop is retained for home consumption, the remaining proportion being exported. The export figures have already been given above. The Department of Agriculture has succeeded in increasing the yield of groundnut even on light soils on which it has been found to grow well.

(iv) *Fibres.*—These constitute an important group of crops, accounting for 7·0 per cent of the area cultivated in British India in 1930-31 as compared with 5·9 per cent in 1901-2.

(*a*) Cotton is the premier fibre crop of India. The statistics in regard to it are striking. In 1925-6 the area under cultivation was 18·18 million acres, and in 1930-31, 14·20 million acres in British India alone, and 28·40 and 23·83 millions respectively, if the area in the principal Indian States is included. The yield of the crop in the same years was 6·21 and 4·91 million bales of 400 lbs. each respectively. There is a large export trade in raw cotton, more than 60 per cent of the crop being sent out. Indeed, cotton is the first article of the export trade of India, and there has been a striking increase in the value of the exports during the last few years. In 1915-16, 440,000 tons valued at 24·97 crores of rupees was exported. In 1925-6, 740,000 tons valued at 95 crores, a record figure, was exported, though the exports declined in 1926-7 to 570,000 tons valued at 58·66 crores of rupees, and in 1927-8 to 480,000 tons valued at 47·72 crores. The striking fall was due to trade depression and a financial crisis in Japan, unsettled political conditions in China and the comparative dearness of Indian cotton in relation to American. The exports of raw cotton, however, revived in 1928-9 and 1929-30 owing to the relatively lower prices of Indian cotton following the slump in the cotton mill industry and reduction in the home demand. The exports amounted to 663,000 tons valued at Rs. 66·25 crores in 1928-9, and to 727,000 tons valued at Rs. 65·08

crores in 1929-30.[1] In 1930-31 owing to weak export demand from other countries, especially Japan and China, and increased home demand, the exports of cotton declined to 701,000 tons valued at Rs. 46·33 crores. Owing to the disastrous decline in the price of Indian cotton there was an enormous decrease in the value of the exports. This drop in prices was caused by world depression and was aggravated by the political condition in India. The area under cotton has increased considerably in certain tracts at the cost of food crops. The average of the years 1895-1900 was 13·86 million acres, while 28·40 million acres was returned as being under cotton in 1925-6. The principal cotton provinces of India are Bombay 6·3 million acres, Central Provinces and Berar 4·8, Hyderabad 3·5, Punjab 2·5, Central India States 1·3, and Madras 2·1 in 1930-1. So far as the area under cotton and total outturn go, India stands next to the United States of America. Indian cotton is for the most part short staple, the lint being short and coarse in fibre as compared with that of the American and the Egyptian cotton. It is, therefore, unsuited to the manufacture of cloth of higher counts such as that turned out by the Lancashire mills. The chief consumers of Indian cotton are Japan and the European Continent. Of the total of 95 crores of rupees worth of cotton exported in 1925-6, Japan alone took 47·47 crores' worth. She took bales valued at Rs. 21 crores out of a total value of Rs. 46·33 crores in 1930-31. The yield of cotton per acre in India is, however, low, being between 75 and 100 lbs. of lint cotton, as compared with 180 lbs. in the United States and 300 to 400 lbs. in Egypt. The Agricultural Department—which was indeed started originally on the initiative of Lancashire—has for some years directed its efforts towards the improvement of the quality and the increase of the yield per acre of the indigenous varieties. It has also tried to introduce exotics—especially long staple cotton—and to produce hybrids. Conditions in many parts of India are not favourable for the cultivation of the exotic varieties and greater attention has, therefore, to be paid to the improvement of the indigenous varieties. Egyptian and Upland American cottons have been introduced in Sind, the latter with most prospect of success. The completion of the Sukkur Barrage irrigation project is expected to increase the area under such cottons. Another notable achievement is the introduction of the Cambodia cotton into Madras since 1904. In Bombay, Punjab and the United Provinces also American cotton has been introduced. There has been a great improvement during recent years in the production of medium staple

[1] See *Review of the Trade of India* (1927-8), p. 63, idem (1928-9), p. 71 idem (1929-30), p. 76, idem (1930-31), pp. 71-75.

cotton and prospects of further improvement are bright, though one danger is that, owing to the low prices secured for this cotton, the growers may revert to the short staple Indian cotton for which the demand is constant, though not capable of any great expansion. Recent tests conducted in Lancashire have proved that certain types of Indian cotton like the best Punjab-American, Madras-Cambodia and a Surat variety can be used for spinning yarns of higher count. It is perhaps significant that there is now more Indian cotton to be found on the Liverpool market than before the War and the difference in the price it fetches as compared with American cotton has almost disappeared.[1]

The War brought into the foreground the question of making the British Empire self-supporting in respect of its cotton supply and, among other reasons, led the Government of India to appoint the Indian Cotton Committee, in September 1917, to examine the possibilities of increasing the supply of long staple cotton in India, to suggest improvements in the existing methods of ginning and marketing, and to make recommendations in regard to the prevention of adulteration, damping and mixing, etc. The report of the Committee, which was issued in April 1919, was divided into two parts, agricultural and commercial. The agricultural section referred to the methods by which the quality and yield of cotton could be improved and specially emphasized botanical work and improvement in agricultural practice. It recommended the organization and extension of the Agricultural Department and also the extension of the area under the cultivation of long staple cotton with the help of irrigation, particularly in Sind, the Punjab and North-West Frontier Province, the United Provinces and to a certain extent in the peninsula. The Committee, desiring to secure an adequate price to the grower, especially of pure or superior varieties of cotton, made a number of helpful recommendations in favour of open markets on the Berar model to ensure full knowledge on the part of the purchaser in regard to the stuff he was buying, the extension of co-operative sale societies, licensing of cotton ginning and pressing factories and restrictions on transport of cotton to prevent the malpractices of adulteration, mixing and damping. The Committee further recommended improvement in cotton forecasts and other statistical information. The improvement of the cotton trade by the organization of a Central East India Cotton Trade Association in Bombay was also recommended. Lastly, the establishment of a permanent Central Cotton Committee to ensure closer touch between the Agri-

[1] See *Encyclopædia Britannica*, thirteenth edition, article on India; and *India* (1927-8), p. 228.

cultural Department and the cotton trade was suggested. The Committee, consisting of twenty official and non-official members, it was suggested, should be an advisory body which should be consulted by Government on any proposed legislation and the working of the licensing system. The Committee would carry out authoritative valuations of new varieties of cotton and spinning tests. After some delay, action on the proposals of the Committee has been taken. The East India Cotton Trade Association was formed in 1922. The Central Cotton Committee held its first meeting in 1921 in Bombay. The Committee has already promoted a Cotton Transport Act (1923) to prevent the adulteration of cotton, which, having been applied in the first instance to Bombay where it met with encouraging success, has been extended to Madras. A Cotton Ginning and Pressing Factories Act—a corollary to the Transport Act—was enacted in 1925. The Indian Central Cotton Committee have established a technological laboratory in Bombay to carry out spinning tests, etc. In co-operation with the Central India States, the Committee have started experimental work on cotton through the agency of the Institute of Plant Industry at Indore. Special research schemes in various provinces are also being promoted by the Committee. Its activities are financed out of the proceeds of a small cess of two annas per bale on all cotton used in mills in British India and exported from India. In Bombay, a Cotton Markets Act has been passed (1927), and the necessary rules under the Act have already been issued by the Government of Bombay. The Act has been put into force in one or two cotton centres in the Presidency. The only comment that we need make here relates to the necessity of devising measures for the use of the improved varieties of cotton in the country itself with a view to lessening our dependence upon foreign cloth. It is a great pity that in spite of her large supply of raw cotton, India has to look to other countries for about one-third of her total need for cloth. While the measures for improving the lot of the grower are certainly to be welcomed, the Cotton Committee ought not to regard the meeting of Lancashire's demand for long staple cotton as its only or principal object.

(*b*) Jute is the next most important fibre after cotton. Although it occupied only 1·2 per cent of the total area under cultivation in British India, raw and manufactured jute contributed 27 per cent of the export trade of the country in 1928-9. India enjoys a monopoly as the world's sole producer of jute. Its cultivation is restricted to the Ganges-Brahmaputra delta in Bengal, the province of Assam with the adjoining Indian State of Cooch Behar, and Orissa. The soil here is enriched by alluvial deposits

brought by river inundation and is thus suited to grow this exhausting crop without any expenditure on manure. In 1930 the total area under jute was 3,349,200 acres, Bengal contributing 3,031,000 acres, about 90 per cent of the total area. Mainly as the result of the severe slump in jute prices and the depression in the jute manufacturing industry the estimated area under jute declined to 1,858,000 acres in 1931, Bengal contributing only 1,598,000 acres. An aggravating factor was the overproduction of 1929 and 1930. In 1927-8 over 33 per cent of the total area under the crop was under the cultivation of high yielding and disease-resisting strains of the two main species cultivated. The introduction of jute cultivation in the Ganjar tract of the United Provinces has proved a success. The area under jute and the yield of fibre have largely increased during the past fifty years. The export aspect of the crop is only second in importance to that of cotton. In 1928-9, 898,000 tons of raw jute valued at Rs. 32·35 crores and jute manufactures valued at Rs. 56·90 crores was exported. The corresponding figures for 1929-30 declined to 807,000 tons valued at Rs. 27·17 crores and Rs. 51·93 crores respectively, owing to acute depression in the jute industry both in India and in the consuming countries. The depression in 1930-31 was much more severe and the year was one of the worst for the industry. This accounts for the setback to the export trade in 1930-31 when 620,000 tons of raw jute valued at only Rs. 12·88 crores and jute manufactures valued at Rs. 31·89 crores were exported. Germany is now the largest customer for India's raw jute, and took 27·2 per cent of the total quantity in 1930-31. The United Kingdom comes next with 17·3 per cent of the total quantity, other importing countries being Spain, France, Japan, China, the United States, Italy, and Belgium. The export of raw jute commenced as early as 1795, but the quantity was small to begin with. The demand on the part of the Dundee power-looms had come to be considerable by 1832. The hand-loom industry in Bengal had, however, still sufficient vitality up to 1850 to ensure an excess of exports of manufactured jute goods over those of the raw material. The cutting off of the United Kingdom from the supplies of Russian flax during the Crimean War led to the exploitation of jute as a commercial fibre of the first importance and resulted in increased exports of raw jute, which totalled nearly 900,000 tons in 1908-9, the two principal customers being the United Kingdom and Germany. During the War exports declined considerably though there has been some recovery since its cessation. The progress of the jute manufacturing industry will be traced elsewhere. It may be pointed out here, however, that the jute industry has shown uninterrupted progress, and in pre-War years

Indian manufactures of jute increased faster than the exports of raw jute, a tendency further stimulated by the War. In 1929-30, the exports of manufactured jute were 41 per cent greater than before the War in the case of bags, and 55 per cent greater in the case of cloth.[1] The depression in 1930-31 has already been noticed.

(v) *Indigo.*—Indigo has had a highly chequered history which goes back almost to the beginning of the Christian era. 'Originally the industry in western India was in Portuguese hands, but about 1778, the East India Company revived it in Bengal and gave it direct encouragement for the next twenty years, and when about 1837 the industry migrated to Tirhoot and the United Provinces, India recovered the foremost place among the indigo-producing countries of the world from which she had been temporarily ousted by the West Indies. India's position remained unassailed . . . until German laboratories found themselves in 1897 at last in a position to produce indigo (indigo had actually been synthesized nearly thirty years earlier) on a commercial scale. The fate which had already overtaken the *madder* and the lac-dye industries thereupon threatened the factories of Bihar.'[2] The Indian exports were seriously affected. Until 1907-8, indigo represented more than half the value of dyeing and tanning materials exported, but in 1913-4 this percentage had fallen to one-fifth. The area under cultivation fell from 1,688,901 acres in 1896-7 to 172,600 acres in 1913-4 and the exports from 169,523 cwts. to 10,939 cwts. The natural indigo industry received a temporary stimulus from the War, which closed the markets of the world to the synthetic substitutes and raised the price of indigo. There was a partial recovery made by the area under cultivation which rose to 770,000 acres in 1916-7 and by the exports which rose to 41,932 cwts. in 1915-6. However, there has again been a set-back since the close of the War and the exports, which are no longer of much importance, amounted to only 1,000 cwts. valued at Rs. 2·45 lakhs in 1930-31. Opinions differ regarding the prospects of the industry, which do not seem to be bright, and the future of the industry is uncertain. Salvation lies only in cheaper production both as regards cultivation and manufacture. In 1915 the Delhi Conference considered the question of assisting the industry from three points of view—agricultural, research and commercial. In 1918, an indigo cess was levied on exported indigo, the proceeds of the duty to be expended by the Government of India on scientific research work in connexion with

[1] See *Review of the Trade of India* (1929-30), p. 71.
[2] See Cotton, op. cit., p. 264.

the cultivation and manufacture of indigo. Investigations are being conducted at the Pusa Research Institute by the Indigo Research Chemist to the Government of India.

The total reported area under indigo cultivation in 1930-31 was only 62,800 acres, the principal contributors being Madras, United Provinces, Bihar and Orissa, Bombay and Bengal. Bihar is the most important from the point of view of foreign trade and it is here that the dye is systematically extracted and marked under European supervision. The bulk of the indigo produced in Bihar factories is exported from Calcutta, chiefly to the United Kingdom, Greece, Iraq and Egypt.

(vi) *Opium.*—The area under opium has declined progressively as a result of the policy of the Government of India of stopping all exports to China under the agreement of 1907 with that country and eventually with all other countries, and of controlled internal consumption. In British India there has been a striking decline from 614,879 acres in 1906-7 to 42,562 acres in 1930-31. The cultivation of the poppy is carried on under a system of Government licenses and is now practically confined to the United Provinces (39,644 acres).

(vii) *Tobacco.*—The tobacco crop is believed to have been introduced into India by the Portuguese early in the seventeenth century. Since the days of the East India Company, Government have directed their efforts towards improving the indigenous methods of curing and manufacturing and towards providing a better quality of leaf. There are three principal centres of the tobacco industry, eastern and northern Bengal, southern India and Lower Burma. In 1930-31, the total area under tobacco was 1,257,000 acres, the leading contributors being Madras, Bengal, Bihar and Orissa, Bombay, Burma, United Provinces, and Punjab. The bulk of the tobacco grown in India is consumed locally, but there is an export trade of considerable value in unmanufactured tobacco, chiefly from Madras and Rangoon. In 1930-31, 28 million lbs. of tobacco valued at 96¾ lakhs of rupees was exported. As regards manufactured tobacco, the value of the imports has always exceeded that of the exports and the difference has recently been accentuated by the increased consumption of cigarettes. In 1929-30, India imported 5·3 million lbs. of cigarettes valued at Rs. 213 lakhs, and 4·8 million lbs. of tobacco valued at Rs. 57 lakhs. Imports of cigarettes declined to 3 million lbs. valued at Rs. 1,22½ lakhs, and of tobacco to 28·68 lakhs in 1930-31. This demand has encouraged the opening of a number of factories for the manufacture of cigarettes in India. Indian leaf tobacco makes an excellent filler but is generally unsuitable for wrappers. The deficiency is met by a considerable import of leaf

from Sumatra and Java. The botanical section of the Agricultural Research Institute, Pusa, has directed its attention to the question of improving the quality of Indian tobaccos, especially in the direction of hybridization of new kinds, and of the production of a tobacco of the colour, flavour and texture of that commonly called Virginian. The heavier import duties levied on tobacco are also calculated to stimulate the cultivation and consumption of Indian tobacco.

(viii) *Fodder crops.*—The area in British India under these crops has increased from 2·94 million acres in 1901-2 to 9·30 million acres in 1930-31, the principal areas being Punjab (4·42), Bombay (2·34), and United Provinces (1·19). In spite of this increase we may say that the area devoted to fodder crops is insignificant in view of the large number of cattle that must be maintained in a state of efficiency in an agricultural country like India. The Agricultural Department has of late years given much attention to the question both of growing and storing fodders. The successful introduction of the famous Egyptian clover, and soil renovator in Sind, Bihar, the Central Provinces and North-West Frontier Province, and the cultivation of berseem at Pusa may be regarded as creditable achievements of the Agricultural Department in this connexion.[1]

(ix) *Rubber.*—Rubber, for which the uses to-day are legion, is grown mainly in southern India (Madras, Coorg, and the States of Mysore, Travancore, and Cochin) and Burma. The total area under rubber in 1930 was 172,100 acres and the yield 24 million lbs. of raw rubber. Most of the rubber grown is exported as can be seen from the fact that 23 million lbs. valued at Rs. 1,30 lakhs were exported in 1930-31. The exports before 1910 were small, the industry being in an infant stage. Even to-day India's share in the world's production is only about 3 per cent. The value of the imports of rubber manufactures in 1930-31 amounted to Rs. 2,57 lakhs.

8. **Exports of agricultural products.**—In the foregoing survey of the principal crops of India, something has been said about their export aspect. It is, however, now necessary to treat the whole subject of the exports of agricultural products separately. As a preliminary to the discussion of this question some statistics of exports of food-stuffs and raw materials may be given. The two tables overleaf show the quantity and value of exports of (i) food-stuffs and (ii) principal agricultural materials.

[1] See *Review of Agricultural Operations in India* (1928-9), pp. 67-70.

TABLE I

	Quantity (figures in thousands)					Value (Rs. 1,000)				
	Pre-War average	War average	Post-War average	1925-6	1930-31	Pre-War average	War average	Post-War average	1925-6	1930-31
Grain, pulse and flour										
Rice (in the husk) ...	tons 42	32	35	36	25	27,18	20,09	31,36	36,67	14,62
Rice (not ,,) ...	,, 2,398	1,685	1,462	2,549	2,254	25,66,55	18,88,25	24,33,66	39,60,54	25,81,89
Wheat ...	,, 1,308	807	237	212	197	13,96,86	10,33,41	3,66,61	3,60,25	1,94,88
Wheat flour ...	,, 55	57	56	67	47	86,99	1,13,20	1,50,26	1,56,20	80,04
Pulses ...	,, 159	129	141	139	82	1,29,81	1,88,52	2,02,78	2,09,16	1,05,04
Barley ...	,, 227	198	40	42	1	1,93,16	2,21,73	46,56	56,23	1,02
Jowar and bajra ...	,, 41	41	11	14	7	37,60	44,15	17,39	18,04	8,16
Other sorts ...	,, 181	192	27	4	1	1,42,96	2,32,45	34,03	6,30	2,54
Total foodstuffs ...	tons 4,411	3,141	2,009	3,063	2,614	45,81,11	37,41,80	32,82,65	48,03,39	29,88,19
Tea ...	lbs. 266,497	322,691	321,169	325,733	356,239	13,06,78	17,54,57	20,92,42	27,12,17	23,55,93

TABLE II

Fibres										
Cotton (raw) ...	tons 430	391	521	745	701	33,27,83	33,63,19	64,73,89	94,99,28	46,32,80
Jute (raw) ...	,, 764	464	554	647	620	22,20,24	12,80,28	19,52,77	37,24,57	12,88,47
Total fibres ...	tons 1,194	855	1,075	1,392	1,321	55,48,07	46,43,47	84,26,66	132,33,85	59,21,27

TABLE II—(*continued*)

		Quantity (figures in thousands)					Value (Rs. 1,000)				
		Pre-War average	War average	Post-War average	1925-6	1930-31	Pre-War average	War average	Post-War average	1925-6	1930-31
Oil-seeds											
Essential	...	tons 10	8	9	10	4	20,57	24,16	35,88	30,72	17,60
Non-essential : Linseed	...	,, 379	270	251	308	257	7,98,90	4,94,94	7,57,72	8,08,53	5,41,07
Groundnut	...	,, 212	119	195	455	601	3,52,57	1,91,17	5,61,97	12,02,33	9,66,79
Rapeseed	...	,, 273	91	206	112	33	4,14,69	1,43,01	5,07,37	2,68,09	52,17
Sesamum	...	,, 119	33	28	40	1	2,48,15	67,35	1,02,73	1,17,34	3,48
Castor	...	,, 114	89	48	110	91	1,66,43	1,57,55	1,14,54	2,67,69	1,55,85
Copra	...	,, 31	16	7	...	...	1,10,43	60,73	28,84	74	34
Cotton	...	,, 240	69	155	197	41	1,79,98	50,25	1,88,05	2,18,11	22,74
Mustard	...	,, 4	3	2	3	3	10,08	9,16	9,75	11,03	6,48
Mowra	...	,, 29	3	8	1	1	42,53	3,04	12,79	1,81	1,50
Poppy	...	,, 33	5	6	6	1	69,41	9,58	20,97	16,16	1,73
Other sorts	...	,, 9	2	8	8	4	23,23	6,48	13,03	21,13	16,43
Total	...	tons 1,453	708	923	1,250	1,037	24,36,97	12,17,42	23,53,64	29,63,68	17,86,18

Review of the Trade of India, 1925-6 and 1930-31.

Table III below shows the percentage of exports of certain principal crops to the total production.[1]

TABLE III

	Pre-War average	War average	Post-War average	1925-6	1927-8	1930-31
Rice	9	5	5	8	8	7
Wheat	14	9	3	3	4	2
Tea	96	89	95	90	91 (1926-7)	91
Cotton (raw) ...	56	51	61	69	46	75
Jute (raw) ...	51	31	48	46	49	31
Linseed	73	63	59	77	63	68
Rape and mustard ...	23	8	19	13	8	4
Sesamum ...	25	8	6	10	2	0·2
Groundnuts ...	35	12	19	24	24	19
Indigo	40	44	27	7	17	7

Table IV below (giving the percentage proportion to the total value of all exports of merchandize) shows the comparative importance of the principal food-stuffs and other agricultural products in the export trade in 1930-31.[2]

TABLE IV

Cotton (raw)	21·19	Oil-cakes	0·94
Grain pulses and flour ...	13·55	Spices	0·58
Jute (raw)	5·84	Coffee	0·87
Seeds	8·10	Tobacco	0·47
Tea	10·68	Fruits and vegetables ...	0·36

9. **Restrictions on the export of food-stuffs.**—Rice, as seen in Table I above, is by far the most important among the food-grains exported, and accounted for 87 per cent of the total quantity of food-grains and flour exported in 1930-31 as compared with 93 per cent in the preceding year. The position of wheat (which was until recently the second chief food-grain exported) in the export trade has already been discussed and we have seen that the exports have recently sunk very low. When, therefore, we discuss the question of the export of food-stuffs, the main reference at present is to rice.[3] Is the export of food-stuffs and raw materials a matter for

[1] *Review of the Trade of India* (1930-31), p. 222.

[2] The total value of all exports from British India in 1930-31 was Rs. 2,20,49,26,000. See *Review of the Trade of India* (1930-31), p. 70.

[3] Pulses, barley, jowar, bajra and maize are the other foodgrains exported, but the aggregate quantity exported is comparatively small.

congratulation or for alarm? There are those who hold that this export is a sign of increasing prosperity. It shows that the country is profiting by advantageous world prices and is sending out the surplus that remains after meeting the need of the home population and is importing, by way of payment for its exports, cheap manufactured articles which cannot be produced profitably within the country itself. According to this view, the exports represent 'a true surplus, that is to say, a margin which India can relinquish during periods of good harvest and a reserve on which she can draw for her own local requirements in times of scarcity.'[1]

The other view is that the export of food-stuffs and raw materials is not a true surplus in the sense that it represents a balance that remains after the needs of the country have been fully met, and that it is advisable, in the true interests of the country, to prohibit or to restrict this export by heavy duties. It is criminal, so it is argued, to allow an export of the country's food-stuffs when large sections of the people are living on the verge of starvation, and to look on complacently while a drain to foreign countries of valuable raw materials, which are badly wanted for the development of the indigenous manufactures, is going on unchecked.

In connexion with this controversy, we must emphasize a simple truth which is often forgotten, namely, that it is inadmissible to infer, from the mere fact of export to foreign countries, that the wants of the people in the exporting country in respect of the commodities exported must have been fully satisfied. The phrase 'true surplus' generally employed in this connexion is unfortunate because it suggests that there is such a thing as a 'false surplus'. Strictly speaking, all surpluses that are exported have the same scientific character; they are due to the fact that there is no demand for them in the country of origin at the ruling prices. By demand as every tyro in economics knows, we understand not merely the desire to possess a thing but such desire backed by adequate purchasing power. If the United States exports wheat, this is not because every individual American has all the food he can consume; similarly, in India, the export of food-stuffs does not mean that nobody in the country has any use for the food that is exported. The only difference between India and the United States is that relatively to the latter country, the former has a very much larger proportion of people whose demand for food is ineffective. It is a difference in degree, not in kind. When, therefore, the Fiscal Commission sapiently remark with regard to the export of rice and wheat from India that 'at existing prices the efficient demand of

[1] *Economic Resources of the Empire*, edited by T. Worswick, p. 145.

India is satisfied, and there remains a surplus available for export,"[1] they are saying something which is perfectly true but also perfectly useless. At 'existing prices' whether high or low, 'efficient demand' is always satisfied. But in spite of the satisfaction of 'the efficient demand' for food, millions of people in a country may be underfed and that is patently the case in India.

There are two methods (which clearly are not mutually exclusive) of remedying this state of affairs. One is to depress the prices of food-stuffs so as to bring them within the reach of the low purchasing power of the masses and the other is to raise their purchasing power so as to make their demand effective at current prices.

One of the ways suggested for bringing down prices of food-stuffs is to prevent their export abroad. The question is, would prohibition of export or the imposition of heavy export duties give us the desired level of low prices, and if so, whether any injurious reactions on the economic life of the country would be set up by thus artificially lowering them?

It has been argued by those who oppose any deliberate attempt to bring down the prices of food-grains by such means that it would naturally lead to the substitution for them of non-food crops like cotton, jute, oil-seeds, etc., unless these also come under the policy of restriction; and thus an attempt to cheapen the food supply of the country would merely result in diminished production of food-grains and the situation, from the point of view of feeding the population adequately, would be worse than before.

We need not dispute that prohibition or heavy export duties will, other things remaining the same, necessarily result in a certain shrinkage in the total production of food-stuffs. If the supply is very elastic, it is possible that the effect of this reduction will be to make the amount available in the country less than before. On the other hand, it is quite consistent with the admission that the supply would be curtailed to some extent to hold, nevertheless, that there might remain a larger quantity of food available for the home market. Suppose the quantity of rice exported amounts to 3 million tons annually out of a total production of 30 million tons, which leaves 27 million tons for home consumption. Now, if prices fall and the supply of rice is extremely elastic, the total production may go down to less than 27 million tons; but it is by no means certain that it may not go down to, say, only 28 million tons, so that the supply available for the home market will be 1 million tons more than before. We cannot dogmatically lay down the proposition that prohibition will necessarily result in a smaller quantity

[1] *Fiscal Commission Report*, p. 155.

remaining in the country than before. It may not be feasible for a good many cultivators to turn their lands on to the cultivation of the non-food crops. And in spite of falling profits, the cultivator may go on producing more or less the same quantity as before. Every one who has the least acquaintance with the actual condition of the agriculturist in India, will realize how difficult it is for him to abandon the narrow groove in which he may be moving and quickly respond to altered circumstances. It is, therefore, not improbable that the food supply in the country may increase as the result of the policy of prohibition.

Another argument in favour of unrestricted export referred to by the Fiscal Commission is that the export market puts the country in command of a surplus, the existence of which is important in periods of local failures of the crops, which recur from time to time in India. This surplus is grown because the export abroad provides a profitable outlet for it and it will disappear if the outlet is closed.[1] The question of adequate famine relief, however, does not depend, in any great measure, on the availability of a surplus exported abroad in normal years. The retention in the country of the normally exported surplus to meet special contingencies, although it may bring some relief, will not make a great difference in the situation, because the quantity of the exportable surplus is insignificant relatively to the total food requirements of the country. Also, simultaneous failure of rains throughout the country is a comparatively rare phenomenon in India, and the problem presented by times of scarcity is one of quickly transferring supplies from regions of comparative plenty to regions of relative scarcity, and it has been the well-justified boast of Government that the highly efficient system of famine relief and insurance elaborated by them has in recent times worked most admirably. It cannot, therefore, be urged that any such supplementary assistance in the task of famine relief as may be afforded by the possibility of diverting the exportable surplus to famine relief is in any sense urgently required.

While, therefore, we do not agree with these usual arguments in favour of unhindered exports of food-stuffs, we are nevertheless not convinced that a policy of restriction would be desirable. We have already hinted above that the exports represent relatively an insignificant proportion of the total production, so that even if they are wholly retained in the country, the impression that will be made on the prices of food-stuffs in general will be very slight, and what is more important, this slight gain will be at the expense of

[1] See *Fiscal Commission Report*, p. 115; and K. L. Datta, *Inquiry into Rise of Prices in India*, p. 98.

the cultivators, whose loss by a policy of prohibition in the case of wheat alone has been calculated at sixteen crores of rupees.[1] Another minor point that is made by the Fiscal Commission is that agricultural improvements will be prejudicially affected by the policy under discussion. High prices benefit the more prosperous cultivators more than any other class, and it is to this class, possessed as it is of the requisite capital and intelligence, that we must look for the introduction of improvements; and lower prices, by reducing the prosperity of this class would make them less capable of undertaking this valuable work. This argument, although it is easy to overrate it, must be admitted to be sound so far as it goes. The only satisfactory method of cheapening food-grains is to make agriculture more efficient and stimulate the production of food-grains; though we must add that the problem at present is that of securing a rise and not a fall of prices. As to the question of increasing the purchasing power of the masses so as to enable them to obtain the means of commanding a sufficiency of food, it will always remain a worthy goal of public policy.

Although we are not in favour of restriction on the export of food-stuffs in normal times, we recognize that abnormal conditions might arise necessitating temporary resort to heavy export duties. There may be a very serious local failure, or there may be an exceptionally strong demand for Indian produce owing to shortage elsewhere, as was the case during the War, and prices may threaten to rise to heights which it is unsafe to reach. In spite of considerable administrative and other difficulties involved in Government interference—difficulties abundantly illustrated by the control measures during the War—it may be necessary for Government to take such action, not only with a view to relieving the situation, but also because public opinion may demand the adoption of emergency measures. It is true that a rise in Indian prices owing to local shortage will automatically diminish the exports to world markets, but before this has occurred to the required extent, a considerable amount of export may have already taken place, and if the idea is to retain this for home consumption and to prevent a sharp rise in prices, Government will have to act as soon as they scent danger instead of waiting for the automatic remedy to come into action.[2]

[1] *Fiscal Commission Report*, p. 114: see, however, p. 165 above.

[2] 'The policy that has been followed of prohibiting exports in times of scarcity (for example in 1918 and 1920) is advantageous, as even when internal prices rise, exports at present are not adequately checked, owing to the fact that the producers are financially tied to dealers and dealers to exporters.'—Anstey, op. cit., p. 71.

10. **Restrictions on the export of raw materials.**—With regard to the export of raw materials it is not necessary to recapitulate the points raised in connexion with the interpretation of the term 'true surplus'.

Several arguments have been put forward against the free export of the raw materials of industry derived from agriculture. In the first place, it is argued that the high prices secured for the export of such commercial non-food crops as cotton, jute and oil-seeds have led to the substitution of non-food for food crops and the utilization of the best lands for the cultivation of such crops, food-grains being relegated to the inferior soils.[1] The total area, however, occupied by commercial crops at the expense of food-grains is very small compared with the total area under the latter.[2]

It is no doubt true that the area under non-food crops is slowly but surely gaining at the expense of the area under food crops, but the disparity between them as regards total production is at present overwhelmingly in favour of food crops, and the contingency of the food supply seriously contracting owing to the encroachment of commercial crops is so remote that there is no immediate cause for anxiety. We do not think that the time has yet arrived for taking any special measures in the interests of the conservation of the nation's food resources, particularly by the drastic method of checking the production and the export of the commercial crops. We must not lose sight of the fact that the production of commercial crops brings substantial profits to the cultivators engaged in it, and there is no strong reason at the present moment for interfering with the cultivator's freedom in the matter of growing such crops as appear most remunerative to him.

Another objection to the free export of raw materials is that by such a policy the price of important raw materials of manufacturing industry such as cotton, jute and oil-seeds is made too high for Indian industrialists to be able to hold their own against foreign competitors. If these exports are restricted, the Indian manufacturer will benefit by cheap raw materials—an advantage not available to the foreign manufacturer. While we admit the necessity of extending protection to the nascent industries of the country, we are doubtful of the efficacy, for this purpose, of artificially lowering the prices of raw materials, which after all contribute a very small proportion to the total value of the manufactured products. The necessary protection is much more effectively given by a system of bounties and protective import duties.

[1] See Datta, op. cit., pp. 64-6.
[2] See tables above, pp. 158 ff.

A third argument is that the continuous cultivation of the land under heavy crops like cotton, jute, etc., results in the progressive exhaustion of the soil. In this connexion it is alleged that the large export of oil-seeds and oil-cakes is particularly objectionable. The soil is subjected to a process of steady deterioration as it does not get back what is taken away from it. Protective export duties on oil-seeds and heavy export duties on oil-cakes, bone and fish manures have been advocated, in order to put a stop to the alleged process of soil exhaustion. Incidentally we may remark that the duty on oil-seeds is also supported on the ground that it will promote the growth of the local oil-crushing industry. As regards soil exhaustion, whether it is actually taking place is a matter of dispute. But even supposing that progressive deterioration of the soil is not taking place, there can be no question that it will benefit by the application of more manure than is given to it in the present circumstances. From this point of view, a moderate export duty on oil-seeds and oil-cakes may be advocated, and part of the proceeds from the duty may be set aside to finance propaganda necessary in order to ensure increasing application of such manures, which may be expected to fall in price to some extent and come within easier reach of the cultivator's resources, without at the same time inflicting serious economic injury on the grower of oil-seeds. The Agricultural Commission uphold the view of the Fiscal Commission that neither an export tax on oil-seeds or oil-cakes nor the total prohibition of such export can be justified.[1] They have argued that the export duty will fall on the producers, as India is by no means the chief producer of the world's oil-seeds, and that it will hurt the agriculturist as grower more than it will benefit him as consumer of oil-seeds and oil-cakes. In the judgment of the Commission, the only method by which the advantages of supply of combined nitrogen available in the large crops of oil-seeds grown in India can be secured is by the natural development of the oil-crushing industry, and though this is a difficult matter owing to inadequate demand for oil in India and the existence of severe European competition in outside markets, it would be worth while carefully investigating the possibilities of the industry in India.[2]

11. **Low yield and its causes.**—Although agriculture is practically the only national industry in India, it is conducted under highly unsatisfactory conditions and the average yield per acre of the different crops is consequently very much lower than in countries

[1] The export duty was, however, advocated by the Board of Agriculture in 1919 and by the majority of the Taxation Inquiry Committee.

[2] *Agricultural Commission Report*, par. 87.

where agriculture is better organized. The following tables, showing (i) the average yield per acre of the principal crops in India in 1918-19, 1923-24 and 1930-31 and (ii) the yield per acre in 1922 in India and other countries, are intended to illustrate this fact.[1]

TABLE I

Crop	1918-9 (lbs.)	1923-4 (lbs.)	1930-31 (lbs.)	Crop	1918-9 (lbs.)	1923-4 (lbs.)	1930-31 (lbs.)
Rice (cleaned)	701	798	871	Linseed ...	265	278	280
Wheat ...	707	694	648	Rape and mustard ...	351	416	337
Sugar-cane (raw sugar)	1,897	2,544	2,568	Sesamum	174	192	212
Tea ...	561	528	485	Groundnut (nuts in shell) ...	997	867	1,094
Cotton (ginned) ...	76	87	82	Indigo (dye) ...	19	22	23
Jute ...	1,195 (1918)	1,164 (1924)	1,192 (1931)	Rubber ...	115 (1919)	121 (1924)	141 (1930)
Coffee ...	183 (1919-20)	139	205				

TABLE II

Country	Wheat (bushels 60 lbs.)	Corn (bushels 56 lbs.)	Barley (bushels 48 lbs.)	Rice (lbs.)	Cotton (lbs.)	Tobacco (lbs.)
Canada ...	17·8	43·4	27·6	...	...	...
United States ...	13·9	28·3	24·9	1,090	141·0	735·6
England ...	31·2	...	31·0	...	...	...
Denmark ...	39·0	...	45·6	...	...	...
France ...	18·6	16·0	23·9	...	...	1,426·1
Italy ...	14·1	20·2	14·3	2,151	...	917·9
Germany ...	20·5	...	25·7	...	...	2,639·2 (1921)
Egypt ...	24·1	36·3	30·1	1,456 (1921)	299·0 352·0 (1923-4)	...
India ...	13·0	15·6	19·8	911	98·0	...
Japan ...	22·5	27·7 (1921)	31·7	2,477	...	...
Australia ...	11·2	25·7	21·3 (1921)	...	...	...

[1] See *Estimates of Area and Yield of the Principal Crops in India* (1930-31), and United States Department of Agriculture's *Agricultural Year Book* (1923).

Referring to the low productivity of Indian agriculture Sir M. Visvesvaraya writes: 'On the normal pre-War basis, the average production of British India, including irrigated crops, cannot be more than twenty-five rupees per acre; in Japan it cannot be less than a hundred and fifty.'[1]

One of the obvious causes of low productivity in India is the uncertain character of the rainfall. Apart from shortage and abnormal distribution of rainfall there are other causes, such as floods, hailstorms, frosts and other vagaries of the climate, which have an injurious effect on the crops. Irrigation supplies a partial corrective to deficiency of rainfall, but the effect of the other calamities mentioned above cannot altogether be offset by human contrivance. Much damage is also caused by wild animals, rats, locusts and other pests, and the various Agricultural Departments have addressed themselves with some success to the task of devising and popularizing remedies against them.

Inefficient tillage and the under-equipment of the agriculturist further account for the low yield. The problems arising in this connexion, as also the excessive subdivision and fragmentation of land leading to wasteful husbandry, will be discussed later on.

12. **Is the soil progressively deteriorating in India?**—It has been asserted that in recent years the average yield per acre of food-grains in India has diminished and is diminishing. Assuming this to be so, however, it cannot be regarded as conclusive evidence of soil deterioration. It may well be due to the tendency of relegating the production of food-grains to inferior soils and reserving the better kinds of soil for the cultivation of commercial crops such as cotton, jute, oil-seeds, etc. The very general belief that the average yield per acre, not only of food but other crops as well, has diminished owing to progressive exhaustion of the soil, may be partly due to the fact that with the increase in the demand for agricultural produce cultivation has been extended till it embraces the poorest and the most unprofitable lands. This would naturally diminish the average yield per acre. The cultivator's judgment in this matter is likely to be vitiated by his memory of times when only the better classes of land were under cultivation. Density of population may also lead to a diminution in the number of periodical fallows and consequent increase in weeds and in the area cultivated in relation to available supplies of manure, resulting in soil deterioration.[2]

[1] Op. cit., p. 174.

[2] *Agricultural Commission Report*, par. 77.

Apart from these considerations, the weight of expert authority seems to be against the theory that in recent times the soil in India has been losing its power more and more with every year that passes. Dr. Clouston, then Agricultural Adviser to the Government of India, in his written Memorandum to the Agricultural Commission, says: 'Most Indian soils must have reached their maximum state of impoverishment hundreds of years ago and will not get any poorer even if cropped without manures for hundreds of years more. An average crop uses up about twenty pounds of nitrogen per acre, but the loss is made up annually, for the soil gets nitrogen from the air and from the decay of root matter left in the soil after the crop is harvested, with the result that most soils are not getting any poorer in nitrogen. . . . It was definitely proved at Rothamsted, the premier agricultural research station in the world, that the unmanured soil there did not reach its maximum state of impoverishment till after being cropped continuously with wheat for a period of forty years, since when the yield from year to year has remained almost stationary, despite the fact that no manure has ever been applied to the field. We may take it, therefore, that, with the exception of the limited area in this country, the soils of which are deficient in phosphates, our old cultivated land has long since reached its maximum state of impoverishment; that increased yields now depend upon the rainfall, standard of tillage and manure applied; that only new land or lands deficient in phosphates are being impoverished by cultivation.'[1] Dr. Voelcker held that in the case of Indian lands generally, owing to exports of seeds, cotton and other products, the soil constituents that are removed are not returned to the soil which consequently is suffering continuous exhaustion. Even he, however, qualified this view by calling attention to the fact that a large proportion of the crops annually grown in India and also of the trees and shrubs and even the weeds, are leguminous in character and may thus derive their nitrogen from the atmosphere.[2] K. L. Datta after weighing all the available evidence comes to the conclusion that 'there is no statistical evidence to show that any change has taken place in the fertility of agricultural land in any part of India, either during the period under inquiry (1890-1912) or even during a much longer period'.[3]

Fortunately, it is not necessary for us to make up our minds on this highly technical matter. The most important fact from our point of view is the actual low productivity of the soil in India.

[1] Minutes of Evidence, vol. I, part i, p. 32.
[2] See Datta, op. cit., p. 17.
[3] *Ibid.*, p. 68.

It is universally recognized that it is highly important to improve the productivity of land in India, and further that proper care of the soil and the application of adequate quantities of manure are the only means of improving the yield. It is cold comfort to be assured that a balance has been established, and that the soil cannot be deteriorating because the maximum state of impoverishment must have been reached long ago. For this after all means that things are already so bad that they cannot possibly get worse now, and the case for bestirring ourselves in order to rectify the situation remains as strong as ever. In this connexion the Agricultural Commission emphasize the importance of research work on soils and soil conditions, and recommend an increase of research workers in the Agricultural Departments and the appointment of specialist officers, especially in the direction of bacteriological, physical and biological research.[1]

[1] *Agricultural Commission Report,* par. 78.

CHAPTER VII

AGRICULTURE: LAND AND ITS PROBLEMS

In this chapter we shall discuss the principal problems relating to land under the headings of (i) Subdivision and Fragmentation; (ii) Permanent Improvements; and (iii) Irrigation.[1]

Subdivision and Fragmentation

1. **The idea of an optimum holding.**—One of the many causes responsible for the backwardness of agriculture in India and the impoverishment of the ryot is the endless subdivision and fragmentation of land. As in manufactures so in agriculture, there is a certain scale of production which gives the best result from the point of view of the producer. After a certain point, any further decrease in the scale of production makes the relation between cost and yield less and less favourable until profit disappears altogether. There is, indeed, also a point beyond which it is not profitable to *increase* the size of a holding, but throughout the discussion on which we are about to embark, this possibility will be ignored as being of no practical importance in India.

2. **Unit of cultivation and unit of ownership.**—When we talk of a suitable size for a holding, what we are really thinking of is the unit of cultivation and not necessarily the amount of land held in ownership, though the two tend to coincide in the rayatwari tracts in India. As Mill points out, 'it does not follow, because landed property is minutely divided, that farms will be so. As large properties are perfectly compatible with small farms, so are small properties with farms of an adequate size; and a subdivision of occupancy is not an inevitable consequence of even undue multiplication among peasant proprietors,' provided, that is, that the patrimony is not divided. Or, as Nicholson puts it, 'large estates do not necessarily imply cultivation on a large scale, nor does a wider system of ownership necessarily imply small cultivation. The great estate may be let out in small farms, and a large farmer may rent land from several owners.'[2]

If a cultivator's own holding is too small for economic cultivation, he may rectify this by taking on lease additional land

[1] The treatment of the important subject of Land Tenure has been relegated to a separate chapter later on.

[2] Op. cit., vol. I, p. 149.

from other people.[1] This does happen to some extent in India and we must make an allowance for it in interpreting the statistics relating to the size of holdings and its economic efforts. We must further allow for cases of joint cultivation. We are not entitled to assume straightaway, without further inquiry, that every bit of land separately owned is also separately cultivated. Though such an assumption may be generally true, it is not invariably so.

Another phenomenon with which subdivision of land is, in almost every case, associated in India, is that of fragmentation of land. Not only is the size of the holding too small but it is scattered in a number of tiny parcels situated at inconvenient distances one from another.

The Agricultural Commission consider the problem of subdivision and fragmentation under the following four headings: (i) the subdivision of holdings of right-holders; (ii) the subdivision of holdings of cultivators; (iii) the fragmentation of holdings of right-holders; and (iv) the fragmentation of holdings of cultivators. The term 'right-holders' is used to denote those who possess some permanent hereditary right in land, whether as owners, occupancy tenants or *patta* holders, while the term 'cultivators' is used to denote all who cultivate land in any of the above capacities, whether as owners, *patta* holders, occupancy tenants or tenants-at-will, or lessee; but not as hired labourer.[2] In our treatment of the subject we have found it convenient to assume what is broadly true, namely, that subdivision and fragmentation of right-holders' holdings tends to be reflected in a corresponding subdivision and fragmentation of cultivation: and what will cure the one will, to a considerable extent, cure the other.

3. **Evils of subdivision and fragmentation.**—The cultivation of an unduly small holding entails waste in a variety of ways. It does not task to its full strength even such poor equipment as the ordinary cultivator possesses, namely, a pair of bullocks and a plough. The plots are sometimes so small that it is scarcely possible to turn the bullocks round while ploughing. The cost of maintaining the bullocks and the cultivator himself remains the same; it does not diminish because the holding is smaller than can be adequately cultivated with the help of the standing equipment. The yield, on the other hand, is bound to be less. More generally speaking, all fixed costs come to bear a larger proportion to the

[1] The economic benefit to the cultivator would obviously be smaller in the case of the leased lands than in the case of land that is owned, because rent is higher than assessment.

[2] *Agricultural Commission Report*, par. 118.

value of the product with every diminution, after a certain point, of the size of the holding. Even as regards costs that are variable, some of them do not vary exactly in proportion to the variation in the size of the plot. For example, the cost per acre of fencing increases with the diminution in the area enclosed. When a piece of land is too small, it may not be worth while incurring the expenditure for fencing against stray cattle. And the inability to protect the fields by proper fences will impose on all farmers a uniform system of cultivation. No new system of cultivation or of rotation of crops is possible because of the liability of crops to be damaged by cattle straying from the neighbouring fallow fields. If fencing is prohibitive, engaging watchmen would generally be even more so. Such a position of affairs is disheartening in the extreme to the enterprising farmer with ideas. Another disadvantage attendant on a multiplication of small fields is the great waste of area which it involves. A great many more hedges, paths, etc., are required, and the total area wasted in this manner is very considerable. The smaller the number of individual fields, the greater will be the saving in the area available for cultivation. Again, there may be plenty of subsoil water in a field but advantage cannot be taken of this fact, because digging a well would mean wholly disproportionate expenditure considering the extremely small size of the field. It may be worth while sinking a well if it commands, say, four or five acres of land, but not so if the land is only about an acre or less. The employment of labour-saving devices such as tractors, threshers, winnowers, etc., is impossible for the smallholder unless there is some form of co-operation or union of efforts and resources—which, however, is not easily achieved. All the disadvantages springing from an unduly small holding are obviously intensified in the holding, which, in addition to being small, is also badly assembled. Speaking about fragmentation Dr. Mann says: 'It has, in fact, all the evils of very small holdings in that it prevents the use of machinery and labour-saving methods; and, on the other hand, of large holdings in that it hinders the adoption of really intensive cultivation by hand labour which is the great advantage of the smallholder.'[1] Difficulties in connexion with putting up fences, protection from the invasion of weeds from the neighbouring fields, protection from stray cattle and from the depredations of thieves are common to excessive subdivision and fragmentation.

There are, however, certain additional drawbacks peculiar to fragmentation. It involves a greater expenditure of capital and

[1] *Land and Labour in a Deccan Village*, vol. I, p. 48.

labour and a smaller return than if the same area is in one compact block. It is calculated that expenditure of cultivation increases by 5·3 per cent for every 500 metres of distance for manual labour and ploughing; from 20 per cent to 35 per cent for transport of manure; and from 15 to 32 per cent for transport of crops. It is obvious that fragmentation adds to expenditure in all these ways. Further, it impedes cultivation, entails great waste of time and waste of labour and cattle-power in going from the village site to the fields and from one field to another. It evidently makes it impossible for the cultivator to stay on his holding in the interests of efficient cultivation. Very often, in order to save time, the cultivator tries to find a short cut through other people's fields. This, together with the disputes about boundaries and rights of way, is a fruitful source of litigation and endless quarrels among village folk. If the cultivator had all his land in one compact block, he would keep his cattle on the farm instead of taking them to the village site, and this would mean a very great saving of manure. As it is, manure has to be carried to the field from the village dunghill and consequently much of it is wasted. When land is excessively fragmented, irrigation often becomes impracticable, although sufficient water may be available. Water cannot be supplied so as to reach all the little parcels into which an individual holding may be cut up, and besides this there is the difficulty of taking the water by channels which will have to run through other people's fields. It is well known that difficulties with regard to the channel along which water is to be taken as well as with regard to its distribution lead to much bickering and bad blood.

The combined result of subdivision and fragmentation is sometimes to drive the land entirely out of cultivation. Dr. Mann sums up the evils as follows: 'This destroys enterprise, results in an enormous wastage of labour, leads to a very large loss of land owing to boundaries, makes it impossible to cultivate holdings as intensively as would otherwise be possible, and prevents the possibility of introducing outsiders, with more money, as tenant farmers or as purchasers of a good agricultural property.' [1]

4. **Case for fragmentation and subdivision.**—It must not be supposed that all cases of fragmentation are undesirable. Absence of a holding in one compact block may, indeed, be due to perfectly sound economic considerations. The holding of land in different soil areas may be necessary as affording a certain amount of insurance against the vagaries of the seasons. 'In many parts of India we find that two or more staple crops are grown in dispersed

[1] Op. cit., p. 154.

fields in different soil areas, so that, while a deficiency or an irregular distribution of rainfall may destroy one crop, there may be favourable returns from other fields. Indeed, the elaborate system of crop rotation which distinguishes Indian from western farming has been possible chiefly because the holdings are dispersed.' [1] On account of the variety of crops also there is occupation for the cultivator for more days in the year than may be possible on a compact homogeneous block. It is easy to multiply instances of scattered holdings governed by considerations of economic advantage. In the Konkan, for instance, the cultivation of rice lands necessitates the possession of a certain amount of *warkas* land, and therefore, both these must go together. Similarly, above the Ghats, especially on the riverside, it is absolutely necessary for the cultivator to possess at least a small strip of *mali* or alluvial land. It supplies him with fodder for his cattle and is useful in other ways. Any scheme of consolidation, therefore, must take these facts into account if it is to be successful.[2]

Similarly, up to a point, subdivision can be defended as leading to a widespread distribution of property in land and the creation of a large class of peasant proprietors strongly attached to their land, recognized on all hands as conducive to economic and social stability. This is a consideration which must be borne in mind in framing schemes for the enlargement of the present holdings in India. Large estates and capitalistic farming on the lines of the English model would not be suitable to Indian conditions. Small-scale farming and a strong class of peasant proprietors are the ideals to be aimed at.

When, however, we decry subdivision and fragmentation, we have in mind instances where justifications and extenuating circumstances such as these are altogether absent and the evils have reached an intolerable stage.

5. **Extent of the evil in India.—I. Subdivision of holdings of right-holders.**—Let us now try to realize the extent of the evil which is to be found practically in all parts of India.[3] In the thickly

[1] *Indian Journal of Economics* (April 1927), Radhakamal Mukerji's article on Fractionalization.

[2] See B. V. Jadhav's speech in the Bombay Legislative Council, 10 October 1927.

[3] In connexion with the evil of fractionalization, statistics of the acreage per head of population are sometimes given. If we divide the total sown area in British India by the total population we get a quotient of a little over 1·4 acres per head. This indicates the intensity of the pressure of the population on the soil, but is not directly relevant to the problem of subdivision and fragmentation. It shows that too many people depend on land, but it is not directly informative as to the extent to which the land is fractionalized.

populated area of Bihar and Orissa, the tenant holding averages less than half an acre though the average per cultivator is 3·1 acres. In Bengal, the cultivated area amounts to scarcely 3·1 acres per cultivator. The very rights which the cultivator has in his land and which have been secured for him by special tenancy legislation make the cultivator stick like a limpet to his petty holding and prevent him from going in search of work in industrial centres except in the last extremity. In Assam, the size of an average holding is no more than 3 acres, while in the United Provinces it is only 2·5 acres. A special inquiry into 2,397 villages in the Punjab disclosed that 17·9 per cent of the 'owner' holdings were under 1 acre; a further 25·5 per cent were between 1 and 3 acres; 14·9 per cent between 4 and 5 acres, and a further 18 per cent between 5 and 10 acres. The holdings under 1 acre were the subject of special inquiry, and it was found that a large number were agricultural holdings. In Madras and Bombay, the average area of the holding is small, and many of the holdings are less than 2 or 3 acres, so that effective cultivation is impossible. The proportion of holdings under 1 acre is high. In Bombay, Sir Chunilal Mehta showed, in his speech on the Bombay Small Holdings Bill (8 October 1927) how in all Divisions, holdings are increasing faster than the area occupied and how this tendency is particularly noticeable in holdings of 5 acres and less. According to Dr. Mann, the average size of the holding in the village of Pimpla Soudagar in the Poona District appears to have been as much as 40 acres in 1771; in 1818, it had come down to 17½ acres; from 1820 it long remained stable at 14 acres but by 1915 was reduced to 7 acres. 'It is evident,' says Dr. Mann, 'that in the last sixty or seventy years the character of land holdings has altogether changed. In the pre-British days, and the early days of the British rule the holdings were usually of a fair size, most frequently more than 9 or 10 acres, while individual holdings of less than 2 acres were hardly known. Now, the number of holdings is more than doubled and 81 per cent of these holdings are under 10 acres in size while no less than 60 per cent are less than 5 acres.'[1]

II. Subdivision of cultivation.—Subdivision of cultivation is even more pronounced, mere cultivators being more numerous than right-holders. A large number of people resort to agriculture for bare subsistence in the absence of any other means of livelihood. In the Punjab, 22·5 per cent of the cultivators cultivate 1 acre or less; a further 17·4 per cent cultivate between 1 and 2·5 acres; 17·9 per cent between 2·5 and 5 acres; and 20·5 between 5 and 10 acres.

[1] Op. cit., p. 46.

In the *Census Report* of 1921 the number of cultivated acres per cultivator is given as follows:—

Bombay	12·2	Madras	4·9
Punjab	9·2	Bengal	3·1
Central Provinces and Berar	8·5	Bihar and Orissa	3·1
Burma	5·6	Assam	3·0
		United Provinces	2·5

III. Fragmentation of holdings of right-holders.—Fragmentation is a normal accompaniment of division of property according to the laws of inheritance, so that very few of the holdings are in one compact block. For example, in the Bombay Presidency proper there are about three to four plots per holding. In the village of Pimpla Soudagar, Dr. Mann found that 156 owners had between them no less than 729 plots of which 463 were less than 1 acre; 211 were less than a quarter of an acre. In Ratnagiri, the size of individual plots is sometimes as small as 0·00625 of an acre, or 30¼ square yards; in the Punjab, fields have been found over a mile long and but a few yards wide, while areas have been brought to notice where fragmentation has been carried so far as effectively to prevent all attempts at cultivation.

IV. Fragmentation of cultivation.—Fragmentation of cultivation is a far more serious and more extensive evil than fragmentation of holdings and is carried to greater extremes. In Pimpla Soudagar, Dr. Mann found that 62 per cent of the cultivators' plots were below 1 acre and in Jategaon the percentage was 31. Ramlal Bhalla found that in the village of Bairampur in the Punjab, 34·5 per cent of the cultivators had over 25 fragments each. This is typical of a widely prevalent situation.[1]

6. **Causes of subdivision and fragmentation.**—Various causes have been put forward to account for the evil of excessive subdivision and fragmentation. One of these is the growth of the spirit of individualism which is responsible for the break-up of the joint family system. Joint cultivation is no longer so common as it used to be. The insistence on partition by metes and bounds, and separate cultivation, are much more frequent than in the old days. This spirit of individualism has been further assisted by the emphasis which English judges administering law in India have placed on private property and individual rights. Again, there are those who consider that the Hindu and Mohammedan laws of inheritance and succession and the customs associated with them are the *causa causans* of subdivision and fragmentation. It is easy to see how the size of the family holding would diminish with every division of the

[1] See *Agricultural Commission Report*, pars. 119-22.

ancestral property. Subdivision, however, is also normally accompanied by fragmentation, because each sharer insists on obtaining a fractional share of each kind of land in every plot instead of being satisfied with one compact block.[1] The aim in such a system of partition is to ensure perfect equality of the shares. The same idea underlies the open-field system in medieval Europe under which strips were intermixed and scattered in order to divide equitably, good and bad, the well and the ill-situated fields. But in India, this apparently equitable mode of division is carried to an extreme and is often vitiated by motives, not of equalizing advantages, but those rooted in jealousy and suspicion.[2]

As against the theory that the laws of inheritance and succession are primarily responsible for the evil, it has been argued that these laws have been in existence for hundreds of years, but that the evil which they are supposed to have caused is comparatively modern.[3] It must, however, be admitted that in the absence of these laws the evils we are discussing would not have manifested themselves on the present scale. The laws permit any one of the co-sharers to separate out his share if he chooses to do so. The desire to seek partition may be due to other causes but, given the will, the laws showed the way. We have already referred to the growth of the individualistic spirit as one of the causes why the tendency to insist on a partition is stronger to-day than it used to be. But this tendency finds actual expression through the laws of inheritance and succession. Instead of saying that these laws are the causes of subdivision and fragmentation, it would perhaps be more accurate to call them the instruments or the means by which continuous subdivision is effected. There is no compulsion to make use of the means, but it lies ready to hand whenever it is desired to put it into operation. It is true that in the old days it was not so frequently requisitioned as at present, but it is not true to say that the operation of these laws 'in the past did not lead to

[1] The result of this custom is that each plot is *subdivided* into as many plots as there are heirs, so that the number of fragmented holdings increases and is equal to the number of co-sharers.

[2] 'What are the reasons for the increase of fragmentation, generation after generation, even without any material increase of the population? The reason is chiefly the terrible jealousy . . . among the brothers in almost every agricultural family. Each one will abate no chance to take advantage of the others. They will go so far as to fight over the partition of honey on the branch of a tree: they have even been known to fight over the partition of the shade of a tree, not its fruits nor its branches.'—F. G. H. Anderson's speech, Bombay Legislative Council debates on the Small Holdings Bill, 10 October 1927.

[3] Wadia and Joshi, op. cit., p. 244.

subdivision of holdings'.[1] We must rather say that their operation was rarely allowed, the joint family being the rule; whenever it was allowed, it inevitably led to subdivision.

Increase of population since the establishment of British rule is advanced as another cause. Increase of population would mean an increase in the number of heirs. But this in itself would not cause subdivision, unless there were other causes impelling the heirs to seek an out-and-out partition and break the joint-family tradition in the way that was not common in the old days. So long as there was a good deal of unoccupied land, as for example in the Canal Colonies in the Punjab, this enabled the additional numbers to be provided for without subdividing land already occupied.[2] But when practically all the land that could be easily brought under the plough was occupied, the position became different and the only escape from subdivision was in joint cultivation which, as we have already hinted, became less and less common.[3]

The decline of the handicrafts due to the competition of machine-made goods is also regarded as one of the major causes. It is worth while, in order to clear our ideas on the subject, to try to understand the precise *modus operandi* of this alleged cause.

As we have seen, the artisans attached to the village usually possessed some land in the village. Those of them whose position steadily deteriorated owing to the competition of machine-made goods fell back on their land as the only resource. The family holding having become the sole means of support, its importance rose in the eyes of those who had a claim on it. The system of sharing the product of joint cultivation among the co-heirs according to the need of each probably began to appear unfair to those whose needs were smaller and who, therefore, absorbed a smaller share of the total product. The feeling of jealousy engendered in this manner possibly militated against the maintenance of the plan of common cultivation, and subdivision resulted. The land that may have been affected in this manner, however, obviously must have been negligible in amount.

[1] Wadia and Joshi, op. cit., p. 244.

[2] What we have in mind here is the subdivision of land already occupied and the average area held by each right-holder. The intrusion of new petty holders (for example money-lenders) in a village may reduce its average size of holding without affecting the position of ancestral holdings.—See *Agricultural Commission Report*, par. 119.

[3] The dissolution of the joint family, according to Anderson, has become especially marked since 1886, owing to the operation of the Income Tax Act.—See Bombay Legislative Council debates on the Small Holdings Bill.

As regards the artisans in the towns, they did not as a rule possess any land. When, owing to competition of machine-made goods, they lost their vocation, they became landless labourers. This may be looked upon as a cause of the increase of pressure on land but could not have had any direct influence on the division of the land. It is possible that some of the urban artisans migrated to the villages and bought or occupied a small piece of land which was uneconomic from the very beginning or became so in due course owing to the operation of the law of inheritance. It is, however, improbable that the artisans, who were driven to the land because their original occupation had ceased to be remunerative, should have ordinarily commanded sufficient savings or credit to enable them to purchase land. In any case, unless the land so acquired was a slice out of an originally larger piece of land, the position so far as subdivision was concerned would remain the same as before. If, on the other hand, new land was occupied, this would add to the original number of holdings; it would not accentuate the subdivision of holdings that already existed. On the whole, therefore, we may hazard the statement that while the decline of the handicrafts resulted for the most part in an increase of landless labourers, its influence in the direction of increasing subdivision and fragmentation of holdings was not very great. In so far, however, as the handicraftsmen were turned into tenants, their demand for cultivable land must have resulted in greater subdivision and fragmentation of *cultivation*.

It is possible, however, to establish a causal connexion between the failure of industry to expand in proportion to the increase of population on the one hand, and extreme subdivision and fragmentation of holdings on the other. If the increase of population in recent times had been accompanied by a commensurate development of manufacturing industries, the superfluous population on the land would have been absorbed by it. If a family became too numerous to be maintained comfortably on its holding, some of the members would have moved to the industrial centres, leaving the rest to cultivate the family holding and enjoy the fruits of their labour. The legal right on the family land of those who left the village would remain. But if the employment in industries gave them the means of a decent existence, there would be a readiness on their part to forgo their claims on the income from the family land in favour of those who remained on it. Unfortunately, such a development failed to take place; population increased and the increase instead of flowing into industries flooded back on the land, and owing to the loosening of the bonds of the joint family and the development of separatist tendencies, resort to the law of

inheritance became more and more the rule. Thus, paradoxically enough, with the increase in the pressure of economic disability, people adopted a course of action which resulted in adding to, instead of lessening, their embarrassment. Land was now the only resource. One would have thought that there was all the more reason, therefore, to make the most profitable use of it. But instead of treating it with the utmost care and consideration, it was cut up and mutilated in a most reckless and suicidal manner.

To sum up, then, we may say that increase in population, lack of a corresponding expansion of industry, the dissolution of the joint family and the growth of the individualistic spirit—all these assisted by the laws of inheritance and succession—must be regarded as the main causes of excessive subdivision and fragmentation of holdings.

When the evil reaches an intolerable stage certain automatic remedies may come into effect. For instance, the excessively small holding may be either sold or let out by the owner. But such instances are not sufficiently common and do not affect the main problem to any appreciable extent. We must, therefore, recognize its existence in a serious form as established and proceed to discuss the possible remedies.

7. **The problem in foreign countries.**—The problem is by no means peculiar to India. Other countries have also had to face it and they have done so in a variety of ways. The experience of countries like France, Switzerland, Belgium, Germany, Denmark and Japan has proved that voluntary agreements among the peasant-proprietors are not equal to the task of securing compact and reasonably-sized holdings and that, therefore, remedial legislation is necessary. Such legislation has been adopted in most of the countries concerned and has involved the following principles: (i) compulsory expropriation of existing holders; (ii) compulsory reconstitution of holdings at the instance of a certain fraction of landholders or in some cases without it; (iii) subsequent indivisibility of reconstituted holdings; (iv) exemption of the holding from seizure for debts; (v) prevention of the reconstituted holding from being combined with other holdings.[1]

8. **What is an economic holding?**—In India, attempts have been made in recent times to tackle the problem both on a voluntary basis as well as by the method of legal compulsion. Whatever the basis adopted, one of the questions that has always to be faced is the meaning of the term 'economic holding'. Several definitions have been suggested. Keatinge understands by an economic

[1] Keatinge, *Rural Economy in the Bombay Deccan*, pp. 52-3.

holding, 'a holding which allows a man a chance of producing sufficient to support himself and his family in reasonable comfort after paying his necessary expenses,' and he goes on to remark that, 'in the Deccan, an ideal economic holding would consist of (say) forty or fifty acres of fair land in one block with at least one good irrigation well, and a house situated on the holding. The desirable area would vary greatly in different parts according to circumstances. A gardener in the Surat district with three acres of good garden land can support a family in comfort, while in the dry part of the Deccan with poor soil thirty acres might not suffice. Between the ideal economic holding and the obviously uneconomic holding there are many gradations; but it would not be difficult to fix a standard for any tract.'[1] Dr. Mann defines an economic holding as 'one which will provide an average family at the minimum standard of life considered satisfactory'.[2] Stanley Jevons, with reference to conditions in the United Provinces, desiderates a size of about thirty acres for a model holding. His objective is to ensure to the farmer not only a 'reasonable', much less only a 'minimum' standard, but a 'high standard' of living.

Before we pursue the question further, we might as well point out that the definition of an economic holding will vary according to a number of factors; for instance, whether we are thinking of gross returns or net returns, whether the capital available is ample or strictly limited, etc. It would further depend on the nature of the methods of agricultural production, on whether cultivation is extensive or intensive, on the quality of the soil, on the presence or absence of irrigational facilities, on the crops raised and so on.

This being understood, let us try to attach a precise connotation to the term 'economic holding'. Taking the case of an average family, we might say that the amount of land which would give the most profitable employment to the capital and labour that it commands would be the ideal holding. All kinds of factors have to be weighed, not excluding the possibility of employing the available capital and labour or a part of it in employments other than agriculture, the distribution of the capital and labour between agriculture and other occupations being determined on the principle of equi-marginal returns. The object aimed at here would be the highest possible net return to every unit of capital and labour engaged in agriculture.

But some of the assumptions ordinarily made cannot be realized under actual conditions in India, especially as the assumption that labour is perfectly mobile as between agriculture and other

[1] Op. cit., pp. 52-3.

[2] Op. cit., vol. II, p. 43.

occupations either within or without the village is not valid owing to the absence of rural industries and the inadequate development of manufacturing industry in urban areas. So far as Indian conditions are concerned, we have to assume that the labour which an average cultivator's family commands is practically not transferable to activities other than agriculture and that it is unconditionally available for agriculture alone.

The idea of an economic holding will perhaps be more easily grasped if we take a numerical example.

Let us take an average family consisting of 5 members and, as our unit of labour, the labour that such a family can supply.[1] Similarly, let us define as our minimum unit of capital, a pair of bullocks and a plough. These assumptions square well with prevalent conditions in India. Let us now suppose that this family possesses a holding of 5 acres on which a gross income of Rs. 150 can be obtained with the available labour and capital. Deduct from this the cost of maintaining the pair of bullocks, say, Rs. 40, and other costs amounting to, say, Rs. 20. This leaves the family with a net income of Rs. 150 − 60 = 90.[2] Let us assume that a plough and a pair of bullocks together with the labour supplied by our average family can satisfactorily cultivate 20 acres. If, therefore, the family possesses a holding of 20 instead of 5 acres the result will be as follows: gross yield = Rs. 600; cost of maintaining the pair of bullocks = Rs. 40 as before; other costs about Rs. 80, that is, four times as much as before (though the likelihood is that the increase in the other costs will be less than exactly proportionate to the increase in the acreage). This leaves us with a net income of Rs. 600 − 120 = 480.

Let us assume that there are four such families A, B, C and D, each possessing 5 acres of land and each cultivating its holding separately. Each spends Rs. 60 (Rs. 40 for bullocks and Rs. 20 for other expenses) and gets Rs. 150 gross income and Rs. 90 net income.

Supposing they agree to cultivate jointly the whole area of 20 acres, which they own between them, they will then be able to dispense with three pairs of bullocks and will save Rs. 120 in the aggregate on that account. Assuming the same labour, that is, the labour of only one family, is applied as before, the result will now be Rs. 600 gross income, out of which we deduct Rs. 40 for the bullocks and Rs. 80 for other expenses, which gives a net income of Rs. 480, and the share of each family is Rs. 120 instead of Rs. 90

[1] 'The unit of economic life in India is the family and not the individual.'—Jack, *Economic Life of a Bengal District*, p. 8.

[2] These figures are, of course, purely illustrative, but the substitution of any other figures will not affect the argument in any way.

when each cultivated its holding of 5 acres separately. Every family thus increases its income, although labour employed in the aggregate is now only one-fourth of what it was before, because according to our hypothesis 20 acres are required to occupy fully the labour supplied by one family.

The question, however, arises as to what is to be done with the extra labour that is available. It cannot find alternative employment in other occupations, because *ex hypothesi* there are none such. The choice is between agricultural work or no work. In these circumstances, some of the extra labour may as well be employed on the land, so long as it results in *some* increase of the product, though the increase may not be proportionate to the addition of the labour units. Let us suppose that the employment of the surplus labour increases the gross yield by Rs. 200. The position now is: (gross income Rs. 800) – (expenses Rs. 120) = Rs. 680 net income.

Let us now exhibit these cases in their order of merit:—

L stands for one unit of labour (that is one average family).

C stands for one unit of capital (that is a plough and a pair of bullocks).

Case I. 1L + 1C + 20 acres; net income = Rs. 480; income per head of the family = $\frac{480}{5}$ = Rs. 96.

Case II. 4L + 1C + 20 acres; net income = Rs. 680; income per head = Rs. $\frac{680}{20}$ = Rs. 34.

Case III. 4L + 4C + 20 acres; net income = Rs. 360; income per head = Rs. $\frac{360}{20}$ = Rs. 18.

The best result is thus reached if a holding of 20 acres is combined with one unit of labour and one unit of capital. This is our economic holding. Any arrangement by which the ratios between land, labour and capital differ from those in the ideal holding thus defined will result in uneconomic holdings and reduce the income per head of the producers. The uneconomic holdings will be more and more economic in the measure in which the ratios are altered in the direction of the proportions in the ideal holding. Case I gives the best results from the point of view of the producers, provided the surplus labour of three families can be turned to some remunerative occupation other than agriculture. But if conditions are such that all the families depend exclusively on the 20 acres of land, Case II gives the best arrangement, because in Case I, the total net income available for the four families is Rs. 480, whereas it is Rs. 680 in Case II. Nevertheless, this does not alter the fact that Case I gives the ideal proportions between land, labour and capital, so that given 4L, the best combination would have been 4L + 4C + 80 acres. But as we have only 20 acres available, we have to adopt the next best arrangement as in Case II,

which incidentally brings out the fact that joint cultivation, to some extent, remedies the evil of excessive pressure on land.

It will be noticed that this method of envisaging the problem of defining an economic holding is less open to objection than that implied in some of the current definitions which we have given above. The expressions 'reasonable comfort', 'minimum standard' as well as a 'high standard' are all vague and ambiguous. If, on the other hand, we say that the end to be achieved is so to arrange the relation between land, labour and capital that it will lead to the greatest possible advantage to the producers, we get out of this difficulty. The greatest economic advantage may enable the cultivator to maintain a very high standard of life or may fall short of what is deemed to be required even for a minimum standard. For example, the income per head of Rs. 96 in Case I above is not, it may be contended, enough for a decent standard of comfort. But all the same, it is the highest attainable. It is possible that in spite of the best combination that we are able to achieve between land, labour and capital, the result may not be wholly satisfactory. For this other remedies must be adopted, such as more efficient methods of production, better marketing facilities, etc. The creation of economic holdings is intended to ameliorate the ryot's position only in so far as it can be ameliorated by one particular method, namely, by putting him in possession of a reasonable-sized holding; it does not promise to create a new heaven and a new earth for him. It is not a complete solution of the problem of the ryot. It is only one of the many lines along which that problem must be attacked.[1]

9. **Remedial measures.**—Let us now proceed to notice the remedial measures hitherto adopted or proposed for coping with the evil of subdivision and fragmentation in India. Under the auspices of the Co-operative Department interesting experiments in consolidation of scattered holdings by the formation of co-operative

[1] There are some people, however, who hold that the evil of excessively small holdings is imaginary, and that the holdings are uneconomic, not in the sense that they are too small, but in the sense that they are too big for the cultivator to look after adequately. The capital he commands and his general equipment are so poor that enlarging his holdings would be to increase his difficulties. If this is so, the obvious remedy would be to suggest measures for reducing the size of the average holding still further, but it has not occurred to anyone yet to recommend this. The fact is that the present inadequacy of equipment and the poverty it connotes are themselves partly the effects of excessively small holdings. Enlarging them is to improve their productive value, though, side by side with this urgently-needed reform, every possible remedy must be adopted to remove the disability imposed by the inadequacy of the capital available to the ordinary cultivator.

societies have been made in the Punjab. About 250,000 acres were thus redistributed up to the end of 1929-30, since the work first began in 1920-21.[1] The essence of the movement is that it tries to adhere strictly to the principles of co-operation; and persuasion and patient propaganda are the only weapons employed to combat unreasoning fear and suspicion on the part even of the smallest right-holder. The effect of consolidation of holdings, so far as it has been achieved, has been wholly beneficial. Land has become more productive; areas formerly uncultivated owing to excessive fragmentation have been brought under the plough; litigation and quarrels have decreased and a keener desire for improvement is in evidence. The province of the Punjab, however, is in some respects exceptionally well suited to such co-operative activity resulting in consolidation on a voluntary basis. For one thing, its villages are more homogeneous as regards land as well as population. Secondly, lands in the Canal Colonies being newly brought under cultivation, consolidation is more easy to effect in their case. Thirdly, consolidation is also facilitated by the comparative simplicity of tenure.[2] Even under the best of conditions, however, the pace of the movement for consolidation is bound to be very slow, and further, there is no guarantee that in the future the work of consolidation will not be undone. The Punjab experiment, again, addresses itself only to the problem of fragmentation and does not aim at checking subdivision. The Punjab officials themselves such as H. Calvert, M. L. Darling and C. F. Strickland have admitted before the Royal Commission on Agriculture that the compelling force of legislation is necessary to save the peasantry from the baneful effects of excessive fragmentation of holdings. Permissive legislation has been tried in India and found wanting. Baroda introduced such legislation a few years ago, but, as Sir Manubhai Metha admitted in his presidential address before the Bombay Provincial Co-operative Conference (1926), the law has remained a dead letter on the statute book. The plan of voluntary action has failed even in the advanced countries of the west, which have been obliged to introduce compulsory legislation.

In the Punjab Canal Colonies, subdivision has been checked by restrictions on alienation, and in the case of certain grants, by the limitation of succession to a single heir. This has not, however, served to prevent *subdivision of cultivation.*

[1] *India in 1930-31*, p. 601.

[2] The Agricultural Commission, however, are definitely of the opinion that the work being done in the Punjab should not be regarded as unsuited for adoption in other provinces without a very careful and persistent inquiry into the local difficulties.

The Egyptian custom has been suggested for Mohammedans, whereby, although land is normally divided amongst the heirs, it is actually left in the hands of one to cultivate on behalf of the whole number, or may be handed to trustees to manage for all. Joint farming of the inheritance without partition has been advocated for the Hindus.

Mere refusal on the part of Government to recognize uneconomic holdings is not enough as is seen by the experience of Bombay. The framers of the Joint Report, on which the Bombay rayatwari system is based, apprehended the evil of subdivision and were responsible for the inclusion in the Land Revenue Code of Section 98, according to which no survey number was to be of less extent than certain minima fixed from time to time for several classes of land. But this provision was ineffective in preventing the partition of land beyond the minima prescribed and the holding of it as separate plots. The law courts freely recognized such divisions and, therefore, Section 98 had to be repealed, and at present the Record of Rights recognizes the minutest subdivision.

In November 1916, Mr. Keatinge, then the Director of Agriculture, Bombay, submitted a draft bill to enable such landholders as wished to do so, to institute permanent economic holdings not subject to future partition on any account and to enable the executive Government to secure the same results in respect of unoccupied Government land. The bill, however, had to be shelved, being adversely criticized by several revenue and judicial officers to whom it was sent for opinion, the principal objections being that a vast mass of petty impartible holdings would be created in defiance of the social system of Hindus and Mohammedans alike, and that there would arise a landless proletariat which would be particularly dangerous in a country where the industries are so little developed that they cannot absorb the surplus agricultural population.[1]

In the Central Provinces an officer has been placed on special duty to carry out the work of consolidation. The Provincial Legislative Council has also passed a Consolidation of Holdings Act (1928) which was to be applied to begin with to the Chhattisgarh Division only. The Act gives power to not less than half of the permanent right-holders, holding not less than two-thirds of the occupied area in a village, to combine in a scheme of consolidation, which, when confirmed, becomes binding on all the permanent right-holders in the village and on their successors. The Central Banking Inquiry Committee were able to note that in a little over

[1] *Agricultural Commission Report*, par. 123.

three years, during which the Act had been in operation, 502 villages had come forward to secure the benefit of the Act; 174 villages had been dealt with; in all 156,500 acres of land parcelled out into thousands of small holdings had been consolidated at a comparatively small expense to Government.[1]

10. **The Bombay Small Holdings Bill of 1927.**—In October 1927, the Small Holdings Bill was introduced in the Bombay Legislative Council by the Hon. Sir Chunilal Mehta. The first part of the bill proposed the creation of machinery for laying down, according to local conditions, a standard unit, being the minimum extent that can be cultivated profitably as a separate plot. All existing plots below this standard were to be declared as fragments. The bill aimed at stopping further subdivision of old fragments and creation of new ones and promoting consolidation of holdings. Existing fragments, although they might be cultivated by owners, could not be transferred to another so as to cause further fragmentation. Alienation of fragments was not to be permitted unless it led to consolidation. In the case of new fragments coming into existence after the standard unit had been determined, all transfers of land were to be necessarily in favour of neighbouring owners and lessees of land. While no one was to be prevented from coming into possession of a new fragment, it was not to be cultivated unless it was combined with a contiguous plot or plots so that the total area so cultivated was equal to or exceeded the standard unit.

The second part aimed at consolidation of existing fragments for purposes of more profitable cultivation. It provided for the preparation of a scheme, on the application of the collector, for any village or area, provided not less than two-thirds of the holders of plots, and owners of not less than one-half of the land affected, consented to the making of the scheme. The scheme was to be administered through a special consolidation officer helped by three representatives of the village concerned.

11. **Controversy regarding the bill.**—The bill involved a certain amount of compulsion. But in the words of Stanley Jevons 'it is a peculiar and most important sociological fact that the laws and customs regulating ownership and use of land have a stronger tendency to persist than any other characteristic of society and, therefore, are difficult to alter by any other extraneous action than the *force majeure* of the law.'[2]

[1] See *Report of the Central Banking Inquiry Committee*, (1931), par. 71.

[2] Quoted by Sir Chunilal Mehta, Bombay Legislative Council debates, October 1927.

Another criticism was that the bill contravened the law of inheritance and the principles on which Indian family life is based. To this it might have been replied that there was no interference with the law of inheritance because the bill allowed separation of interests, although not actual physical sub-division for cultivation of landed property after a certain point. The bill may be said to have tried 'to alter the method of partition rather than the law on which partition is based'. In any case, the law is after all man-made and if it is seen to be mischievous in its tendency the only sensible thing to do is to alter it.

The criticism, however, which was most frequently heard was that the bill would involve extensive expropriation and the creation of a large landless proletariat. This was based on the assumption that the standard holding would be fixed at a figure very much higher than the present average holding of a cultivator. The bill, however, contemplated the creation of 'profitable holdings' and not of 'economic holdings'. The standard unit was defined as the minimum necessary for profitable cultivation and not for an economic holding. The profitable holding contemplated would be very much lower than, for example, the economic holding as we have defined it. It seemed likely that where an economic holding would mean, say, twenty acres, the standard unit was to be fixed at something like three or four acres. This being so, a very small number of people would actually have had to part with their land as a result of this particular piece of legislation.

Assuming that the standard unit had been fixed at a very moderate figure, many of those who would have had to part with land under the new law by way of lease or sale, were likely to be people whose holdings were so small that they could not possibly live by them alone and who, therefore, were not whole-time agriculturists. The little fields they possessed were a source of loss in so far as they prevented proper attention being devoted to the occupation which was their principal source of livelihood. The holder, in these circumstances, would be better off if he sublet, and while enjoying some profit from the land he would still own, he would not waste time and incur loss by cultivating in person.[1]

The critics of the bill also lost sight of the probability that it would have acted as a deterrent to reckless subdivision, and thus the question of expropriation would not have risen in many cases. People would to some extent be stopped from seeking partition if, as a result of the partition, the family holding was going to be

[1] F. G. H. Anderson's pamphlet on the Bombay Small Holdings Bill.

divided into fragments below the minima fixed, to which certain legal disabilities were proposed to be attached. Attempts to cultivate the holdings jointly even after partition would be more common, the product being divided, though not the land.

The bill was referred to a Select Committee which reported in May 1928, introducing certain minor amendments to make it more acceptable. But owing to determined opposition in the Council and outside it had to be postponed indefinitely. The opposition was inspired by the mistaken notion that the bill would lead to expropriation on a large scale. In order to dispel this notion Mr. B. V. Jadhav suggested, in his minute of dissent to the Select Committee's Report, the desirability of defining the standard unit in the bill itself. He proposed that the standard for *bagait* land should be 10 gunthas (¼ acre), for *tari* (rice land) 5 gunthas, for *mali* (land on river banks) 5 gunthas and or *jirayat* (dry crop) land 40 gunthas.[1] Although these units would perhaps not have suited local conditions everywhere, the suggestion was sound that some definite assurance was needed to allay popular suspicion. If a well-planned and vigorous campaign had been carried on by the advocates of the bill to enlighten the public with regard to its true nature, it would probably have received greater support. As it was, it had to be withdrawn without ever receiving a fair hearing.

In conclusion we may note the Agricultural Commission's warning that, in tackling the problem of subdivision and fragmentation, great caution and the utmost possible consideration of the opinions and prejudices of the people affected are necessary. An element of compulsion may be inevitable, but compulsion should not be regarded as dispensing with the need for the most scrupulous attention to the wishes of the people. It should be reserved till the latest possible stage of a proposed scheme for consolidation and might be applied to secure for the majority the advantages which an obstinate minority might otherwise withhold. The State should undertake propaganda work, and difficulties should not be allowed to become an excuse for inactivity. State action in favour of consolidation should be taken in a gradual manner where it is introduced under a permissive Act. Special areas should be selected for notification under a permissive Act and full inquiry should be made into the opinions of the right-holders before any measure of compulsion is introduced.[2]

We have implicitly admitted above that any legislative measure, however modest, will necessarily lead to a certain amount of dis-

[1] See *Report of the Select Committee on Bill No. XVI of 1927*, p. 6.

[2] *Agricultural Commission Report*, par. 127.

possession, if designed to remedy the present excessive subdivision and fragmentation, and although we have held that the lot of those who are thus compelled to part with their land will generally be better than before, for reasons already given as well as because larger holdings would mean more prosperous agriculture and greater employment for labour, it would nevertheless be advisable to take special measures in order that the dispossessed holders should be rapidly and comfortably absorbed in profitable employment. For this reason, improved agriculture should be promoted; colonization schemes, wherever practicable, should be started; rural industries as closely associated with agriculture as possible should be developed; and the pace of industrial development should be quickened.

Permanent Improvements

12. **Absence of permanent improvements and its consequences.**—One of the most striking contrasts between western and Indian farming is that in India there is an almost entire absence of permanent improvements on the land. Speaking about conditions in the Bombay Deccan, which hold good, more or less, of other parts of India as well, Keatinge observes: 'In the western portion some careful and laborious terracing has been done on the hillsides by the smaller owners. Here and there a favoured tract will be supplied with irrigation wells, and some farm buildings may be seen in the fields; but over the greater portion the landscape owes nothing to the hand of man—the fields lie unwatered, unfenced and unembanked, without shelter for man or beast.'[1] The absence of proper fencing puts the crop at the mercy of wild boars, stray cattle and poachers, not to speak of the numerous boundary disputes to which it gives rise and the labour it involves in connexion with herding cattle and watching crops. The freely blowing winds cause not a little damage to crops like cotton in the absence of wind-breaks. Although efforts, on an individual as well as a co-operative basis, to provide proper fencing have been made, much work yet remains to be done in this connexion. Field embankments are further conspicuous by their absence. The consequence is soil erosion and scouring of the land, leading to much preventible loss to the agriculturist. The soil, again, is very rarely graded and levelled properly so as to secure uniform absorption of water. Nor is there any satisfactory system of drainage. This leads to waterlogging, and if at all an outlet for the excess of water is provided, it is allowed to run over other peoples' land and damage it. In this manner, for instance, 'thousands of acres of valuable land on the

[1] Op. cit., p. 107.

left bank of the Jumna have been damaged by the formation of a network of ravines; and villages which were at one time surrounded by fertile fields now lie in a network of useless gullies.'[1] A proper control of surface drainage will cure all these evils, increase the yield of crops and by raising the spring level maintain the wells in action throughout the year.[2]

The provision of field embankments on the required scale as well as efficient fencing arrangements are, normally speaking, beyond the capacity of the individual cultivator, and the problem requires resort to joint schemes of land improvement for its solution. It is also essential that Government should lend a helping hand by a freer grant of takkavi loans and by making available technical guidance through the appointment of special trained assistants to help such activity. Some of the Provincial Governments have recently made a fresh departure in appointing special embankment officers. The absence of farm buildings is another serious defect because it makes supervision difficult and entails an unnecessary waste of time and labour for both men and cattle. Cattle cannot be properly housed and the system of housing them along with men in the houses on the village site is highly unsatisfactory. The loss of manure in the process of carrying it from the village site to the fields must be immense. There are, however, difficulties in connexion with the provision of suitable farm buildings which it will take time to surmount. One difficulty is that living in a farm-house on his holding would deprive the cultivator of the protection and security which he enjoys at present by living along with other cultivators on the village site. The need for mutual security was very much greater before the establishment of Pax Britannica, but even now it is an important consideration; secondly, the attachment to the ancestral village dwelling comes in the way of the villager transplanting himself to a new house on the farm; thirdly, the expense of the change of residence would be a consideration; fourthly, the average holding is normally so scattered that the cultivator has not one but several fractional farms; and lastly, whereas by living on the village site the cultivator can take advantage of the public wells for obtaining water for drinking purposes, he would have to dig a private well of his own, if he shifted to a farm-house on his holdings. All these difficulties, however, must be got over, having regard to the great benefit to be derived from each cultivator staying on his holding.

[1] See Dr. Clouston's Memorandum, *Agricultural Commission Report*, Minutes of Evidence, vol. I, p. 12.

[2] See Howard, op. cit., p. 14.

IRRIGATION

13. **Necessity and importance.**[1]—There are many reasons why our agriculture cannot afford to depend exclusively on rainfall and why it is necessary to provide the agriculturist with suitable irrigation facilities. There are many parts like Sind, Rajputana and south-west Punjab which are practically rainless, so that cultivation is impossible except by artificial irrigation. Secondly, where the rainfall is not so very deficient, it is precarious and ill-distributed, as in the uplands of the Deccan which is exposed to chronic drought. Thirdly, some crops like rice and sugar-cane require a regular and sufficient water supply, which is not provided by the rainfall except in the most favoured regions. Fourthly, the intensive cultivation of land under the pressure of an increasing population has made second or winter crops necessary, and these require artificial irrigation in the absence of the winter rains. Lastly, there is the general consideration that nearly eighty per cent of the population are dependent upon agriculture, and their well-being must necessarily be affected by the adequacy or otherwise of such an important requisite as irrigation. It is for this reason that irrigation has been practised in India from time immemorial, especially in the form of wells and tanks, and the true British contribution to the irrigation system consists in the large irrigation works constructed for the purpose of utilizing the surplus water of large rivers.

The advantages of irrigation are numerous, the principal ones being an increase in the yield of crops, the successful introduction of a stable agriculture in arid and precarious tracts, protection from and insurance against famines and scarcity, larger railway profits in agricultural provinces like the Punjab and direct financial gain to the State.

14. **Classification of irrigation works.—I. General classification.**—There are three main kinds of irrigation works in India: (i) wells, (ii) tanks and (iii) canals. The canals are again of three types, namely, (*a*) inundation canals, (*b*) perennial canals, and (*c*) storage works.[2]

(i) *Wells.*—Well-irrigation is, and will always be, a vital factor in Indian irrigation, about twenty-five per cent of the irrigated area being accounted for by wells.[3] There are about two and a half

[1] See *Triennial Review of Irrigation, 1927-30* and also Harris, *Irrigation in India,* pp. 1-4.

[2] Other systems of irrigation in use in India are lift irrigation from rivers and temporary dams for holding up flood-water. *India in 1930-31,* p. 229.

[3] *Agricultural Commission Report,* appendix vii, gives useful statistics of the area irrigated from wells from 1900 to 1926.

million wells in various parts of the country irrigating about thirteen and a half million acres of land (including Indian States) and representing a capital outlay of about a hundred crores of rupees. This form of irrigation possesses a high degree of utility and is more efficient than canal irrigation.[1] Wells are mostly private works, though their construction is encouraged by Government, who advance takkavi loans for the purpose and exempt the improved land from any extra assessment. The utility of wells has been considerably increased by the subartesian bores and the installation of small power-pumps of a standardized pattern. These improvements are especially promoted by the engineering section of the Agricultural Department. There is plenty of scope in all the provinces for the extension of well-irrigation. Small co-operative societies for sinking and working wells would be valuable agencies where the individual holdings are very small. The Agricultural Commission, while not in favour of the United Provinces plan of subsidizing tube wells, recommend Government assistance in their construction by the provision of technical advice, grant of takkavi loans and by placing boring equipment and skilled labour at the disposal of the landholder on payment of a moderate fee.[2]

(ii) *Tanks.*—Tanks have formed characteristic features of Indian agricultural economy since very early times. They are, however, practically unknown in the Punjab and Sind. They are most highly developed in Madras, where there are over 35,000 petty irrigation works serving between 2·5 million and 3 million acres of land. Many old village tanks have, however, been silted up and are out of repair. A more vigorous effort on the part both of Government and people is necessary to make the most of this ancient form of irrigation, especially in tracts where canal irrigation is impossible or unsuitable.

(iii) *Canals.*—This is now the most important form of irrigation in India and the one specially encouraged by Government. A distinction may be drawn between canals dependent throughout the year upon the natural supply of water from the rivers on which they

[1] 'When the cultivator has to raise every drop of water which he uses from a varying depth, he is more careful in the use of it; well water exerts at least three times as much duty as canal water. Again, owing to the cost of lifting, it is generally used for high grade crops. It is estimated that well-irrigated lands produce at least one-third more than canal-watered lands. Although the huge areas brought under cultivation by a single canal scheme tend to reduce the disproportion between the two systems, it must be remembered that the spread of canals increases the possibilities of well-irrigation by adding, through seepage, to the store of subsoil water and raising the level.'—*Indian Year Book* (1928), p. 342.

[2] *Agricultural Commission Report*, pars. 274, 280.

draw and those provided with artificial storage. The first type has been developed mainly in the regions traversed by the Himalayan rivers which flow throughout the year, the snow on the mountains serving as an inexhaustible reservoir during the dry months of the year. The same is the case in Madras to some extent, where the cold weather rains are heavier than in Bombay. The second type of canal has been adopted for the Madras Presidency, Deccan, Central Provinces and Bundelkhand. The rivers in peninsular India, while flowing in torrents in the monsoon, shrivel up during the dry months of the year and, therefore, artificial storage is a necessity.

The first type of canal may again be subdivided into two classes, (*a*) the inundation and (*b*) the perennial canals.

(*a*) The inundation canals are drawn directly from the river without the use of any barrage. They do not obtain water until the river is flooded and reaches a certain level, the supply of water in the canal fluctuating with the natural flood level in the river. The lands in Sind and the Punjab are irrigated by such canals drawn from the Indus and the Sutlej respectively. In Sind, most of the canals are inundation canals. Being dependent on the natural flood level they receive a scanty supply when the level is low, while with fairly high and prolonged floods they permit of widespread cultivation. Irrigation is thus confined to the period from June to September, and during the latter portion of the year no cultivation is possible without the use of wells. The Sukkur Barrage in Sind which was opened in January 1932, is the greatest work of its kind in the world. It seeks to remedy the above-mentioned defect by constructing a barrage across the Indus, by means of which it will be possible to maintain the water level in the canals above it at a sufficiently high level to provide flow irrigation all the year round. Similar steps are being taken in the Punjab, the main reason for the delay in undertaking such works being their heavy cost.

(*b*) Perennial canals are, as indicated above, constructed by putting some form of barrage across a river which flows throughout the year and diverting its water by means of a canal to the country to be irrigated. They are thus independent of the natural level of water in the river. Within this class fall the great perennial systems of the United Provinces and the Punjab. Some of the inundation canals in Sind and the Punjab are being transformed into perennial canals.

Storage works canals are constructed by building a dam across a valley to store the rain-water during the monsoon. The water so held is distributed to the neighbouring lands by means of the canals drawn from the storage. The expedient of storing the

rain-water during the monsoon has been practised in India from very old times. Such works have been constructed in the Deccan, Central Provinces and Bundelkhand.

II. Classification of Government irrigation works.—For the purpose of indicating the source from which the funds for the construction of Government irrigation works are provided they were classified until 1921 as follows: (i) productive, (ii) protective, and (iii) minor.

(i) *Productive works.*—These were expected to yield within ten years of their completion a net revenue sufficient to cover the annual interest charges on the capital investment. These works are found mostly in northern India and Madras. The average area irrigated by productive works during the three years 1927-30 was 22,202,303 acres and the capital outlay at the end of 1929-30 was Rs. 86 crores. The largest increase in the area irrigated by Government irrigation works has been in the class of productive works, which irrigated an area of 4·5 million acres in 1878-9, as compared with 20,756,209 acres in 1926-27 and 23,505,675 in 1929-30.

(ii) *Protective works.*—These were not expected to be directly remunerative but rather intended to ensure protection against famines in precarious tracts like the Deccan. Such works diminish the necessity for periodical expenditure on the relief of the population in times of famine. The cost of these works is a charge on the current revenues of Government and is generally met from the annual grants set aside for famine relief and insurance. Though not directly remunerative and in fact often resulting in loss, protective irrigation works may be economical in the long run as they ensure the economic stability of precarious tracts. The average area irrigated by unproductive works during the three years 1927-30 was 4,109,793 acres and the capital outlay at the end of 1929-30 was Rs. 44 crores. In the year 1929-30 the area irrigated rose to 4·49 million acres.

(iii) *Minor irrigation works.*—This was a miscellaneous class consisting of works, especially tanks, belonging mostly to the pre-British period, which the British Government have taken over and improved, and including only a few small works belonging to the British period. The minor works were further distinguished according as capital and revenue accounts were or were not kept and they were all financed from current revenues. Loans were permitted only in the case of productive irrigation works.

Since 1921, this old classification has been altered and it is now possible to finance any work of public utility from loan funds. The classes of productive and minor works have been

abolished and all irrigation works whether major or minor, for which capital accounts are kept, have been re-classified under two heads, (i) Productive or (ii) Unproductive, without reference to the source whence the funds for their construction are provided. The third class embraces areas irrigated by non-capital works.

15. **Extent, growth and revenue.**—The total gross area irrigated from all sources in British India amounted to 54 million acres in 1930-31 as against 46 million acres in 1927-8. Deducting the area irrigated at both harvests, the net area irrigated was 50 million acres in 1930-31 as compared to 43,240,726 in 1927-8. Of the area under irrigation in 1930-1, 26 million acres were irrigated by canals, 7 million by tanks, 12 million by wells and 5 million by other sources. Of the gross area irrigated, rice occupied 19 million acres, wheat 10 million, barley, jowar, bajra and maize together 7 million, other cereals and pulses 6 million, and sugar-cane 2 million acres. Cotton occupied 3 million and other food crops 5 million acres.[1] There has been during the last forty years a steady growth in the area irrigated by Government works. From 10·5 million acres in 1878-9 the area annually irrigated rose to 19·25 million acres at the beginning of the century and to 28·1 million acres in 1919-20, the record year up to that date. This record was, however, surpassed in the year 1922-3, when the total area irrigated by Government irrigation works in India amounted to 28·33 million acres (a figure nearly reached in 1926-7 when it was 28·2 million acres)[2] and again in 1929-30 when the total area irrigated by Government works of all classes in British India amounted to 31·64 million acres, or 12·7 per cent of the entire cropped area of the country. The main increase has been, as stated above, in the class of productive works which irrigated 4·5 million acres in 1878-9, 10·5 million acres in 1900-1 and 19·15 million acres in 1927-8 and 23·50 million acres in 1929-30. The total length of main and branch line canals and distributaries in operation amounted to about 75,000 miles as against 39,142 miles in 1900-1. The estimated value of the crops supplied with water from Government irrigation works was Rs. 128 crores. The annual value of wheat exported from the Punjab has increased from 1 million to 6 millions sterling. The total capital outlay on irrigation and navigation works, including works under construction, at the end of the year 1929-30 amounted to Rs. 130 crores as against Rs. 42·2 crores in 1900-1. The gross revenue was Rs. 12·9 crores and the working

[1] *Agricultural Statistics, 1930-31* (Provisional), p. 1.

[2] See Harris, op. cit., pp. 8-9; and *Indian Year Book* (1932), pp. 296-7 and *India in 1930-31*, pp. 228-9.

expenses Rs. 5·9 crores, giving a net return on capital of 5·4 per cent. This is a satisfactory result, as Rs. 44 crores of the total have been spent on unproductive works, most of which return less than 1 per cent. The return from individual irrigation works shows a large variation. Some of the Deccan irrigation works hardly yield about 1 to 2 per cent, while productive works in the Punjab yield handsome dividends (13·61 per cent in 1929-30) on the capital outlay, in Madras 7·70 per cent and in the United Provinces 5·90 per cent. In considering these figures it must be remembered that the capital invested includes considerable expenditure upon four projects of the first magnitude, viz., the Sarda-Oudh canals, the Sutlej Valley project, the Lloyd Barrage project and the Cauvery (Mettur) project, which are either only recently completed or still under construction and contribute little or nothing in the way of revenue.[1]

The importance of the part which irrigation plays in the rural economy of the different provinces varies greatly from province to province as will be seen from the table below.[2] It will be seen that the more advanced provinces in this respect are Sind, the Punjab, the North-West Frontier Province, Madras, the United Provinces and Bihar and Orissa. Bombay proper and the Central Provinces, both of which are in need of irrigational facilities, are poorly developed and we must speed up future progress to ensure certainty of harvests in these regions of precarious rainfall. Bengal, Burma and Assam are in the same category, but their need is much less owing to more favourable rainfall.

Province	Percentage of area irrigated to area sown	Province	Percentage of area irrigated to area sown
Assam ...	5·7	C. P. and Berar ...	4·2
Bengal ...	6·2	Madras ...	29·7
Bihar and Orissa.	17·4	N.-W. F. Province.	34·4
Bombay { proper.	3·9	Punjab ...	44·1
Bombay { Sind ...	73·7	United Provinces ...	22·0
Burma ...	8·4	Minor administrations.	19·3

Total average for British India 19·4

[1] See *India* (1928-9), pp. 111-2, and *Indian Year Book* (1932), p. 229.

[2] The figures are the averages of the five years 1921-2 to 1925-6 (see *India in 1928-9*, p. 110). The area irrigated from all sources in 1930-1 was largest in the Punjab (14·8 million acres). The United Provinces came next (10·2 million acres), followed by Madras (9·15 million acres), Bihar and Orissa (5·25 million acres) and Bombay including Sind (4·14 million acres).

16. **The irrigation policy of Government.**—The British Government inherited from its predecessors some of the present irrigation works, such as a few inundation canals in upper India, storage works, and tanks, especially in the Madras Presidency. In the early British period, however, these works were neglected, with the result that some of them were ruined. But by the middle of the last century, there was a change in the policy of the Government, who began to repair and revive the old works. Progress was, however, retarded by the unsuccessful experiment of entrusting the work to private guaranteed companies. Government subsequently adopted a new policy and undertook the construction and maintenance of productive irrigation works themselves, raising loans necessary for the purpose. Under this policy, some of the greatest works were constructed in the United Provinces and the Punjab. A brief description of the Canal Colonies in the Punjab is given at the end of this chapter.

The progress of irrigation as a whole was, however, very slow. In the meanwhile, a further important change occurred in the policy of the Government, consisting of a clear recognition on their part of their duty to construct protective irrigation works in famine tracts, and steps were accordingly taken in that direction in the Deccan and elsewhere.[1] But on account of their heavy cost and the irregular demand for water on the part of cultivators, together with the occasional failure of the monsoon, these works did not pay their way, with the result that Government began to concentrate on the more remunerative works connected with the rivers in the Punjab. The famines that visited the country towards the end of the last century and affected the Deccan with particular severity led to the appointment of the Irrigation Commission of 1901 by Lord Curzon's Government. That body held that railway construction, which was recommended as a measure of famine protection side by side with protective irrigation works by the Famine Commission of 1880, had played its part in the policy of famine insurance, and it was now important to develop the supply of food. They maintained that the field for the construction of remunerative works was limited to the Punjab, Sind and parts of Madras, all of which are not so vulnerable to famine. They recommended, however, that these works should be increased as fast as possible, because they would be profitable to

[1] After the famine of 1877-8, it was decided to set apart Rs. 150 lakhs every year as the Famine Relief and Insurance Fund. A portion of this grant was spent upon the construction of protective works. In 1910 the Secretary of State sanctioned the provision of an annual subsidy of Rs. 25 lakhs for this purpose in addition to Rs. 75 lakhs from the Famine Relief Fund. The full allotment of Rs. 100 lakhs was, however, never worked up to even before the War made retrenchment necessary.

the State and would increase the total food supply of the country. For the protection of famine areas, they recommended the construction of protective irrigation works which, though not directly paying, would dispense with the large expenditure on famine relief which would otherwise be necessary. For the Bombay Deccan especially, they recommended the construction of canals fed from storage lakes in the Ghats. They also recommended the Kistna and Tungabhadra projects. The total cost of these projects was expected to be forty-four crores of rupees effecting an addition of six and a half million acres to the irrigated area. The subsequent irrigation policy of the Government has been based upon these recommendations and presents a contrast to the earlier policy of concentration on railways, to the detriment of irrigation, which called forth the adverse criticism of men like the late Mr. R. C. Dutt. A large number of new works were undertaken and the capital outlay has since been more than doubled on productive and protective irrigation works, while the area irrigated by them has increased by over seventy per cent.

Irrigation has now become a provincial subject and greater financial powers and larger initiative have been conferred on the Provincial Governments. The sanction of the Government of India and of the Secretary of State is required only in the case of works estimated to cost over fifty lakhs of rupees. Moreover, the use of loan funds is no longer restricted to productive works. Money is also available from the Provincial Famine Insurance Grant when it is not required for actual famine relief.

The Agricultural Commission strongly commend the Bombay Government's step in the appointment of a special inquiry officer in 1925 to investigate the natural resources for the protection of the lands from famine and they advise other provinces to follow suit. Co-operative irrigation societies should be formed and assisted to carry out and maintain such works. The construction, preservation and improvement of minor irrigation works have not hitherto received the attention they deserve.[1]

Since 1922, remarkable activity in regard to irrigation works has been displayed and 19 important works have been completed or are under construction, their cost being over 500 million rupees, and the area to be brought under irrigation or under improved watering being 11·22 million acres, which means a total area thrice as large as in the year 1902-3. The new major works of exceptional importance are the Sutlej Valley project, estimated to cost Rs. 23·86 crores (revised estimate) and to irrigate over 5 million acres; the

[1] *Agricultural Commission Report*, par. 279.

Sukkur Barrage estimated to cost about 20·04 crores and to irrigate over 5 million acres;[1] and the Cauvery Reservoir and Mettur Project estimated to cost about Rs. 7·37 crores and to command a new area of over 3 million acres and add 150,000 tons of rice to the food supply of the country. In Bombay, two major works have been recently completed, the Bhandardara Dam (1925), which is the highest (270 feet) in India, and the Lloyd Dam at Bhatgar (1926), which is the largest mass of masonry in the world. In the United Provinces, satisfactory progress has been made in connexion with the Sarda-Oudh canals. The Sarda River irrigation scheme was formally put into service in the autumn of 1928 and it will irrigate more than a million acres. Also in the Central Provinces, an elaborate and comprehensive programme extending over a period of fourteen years has been laid down. Almost every province has several schemes under investigation. 'When allowance is made for the more promising projects now being considered and for the natural expansion of existing schemes, an ultimate area of fifty million acres is by no means improbable.'

The Agricultural Commission recommend the establishment of a closer relation between the Irrigation and Agricultural Departments; creation of local advisory committees (on the analogy of the local railway advisory committees) to deal with complaints with regard to irrigation matters; the establishment of a central bureau of information at Delhi which should maintain a comprehensive library of irrigation publications, act as a clearing house of information for provincial officers (to remove their present ignorance of what is going on in other provinces) and also to deal with questions arising out of hydro-electric development. They further suggest that greater attention should be paid to research on irrigation problems and that there should be a periodic review of the position with regard to all outstanding irrigation projects.[2]

17. **Irrigation versus Railways.**—A few words may be said about the irrigation vs. railways controversy, which was very prominent at one time, especially in the closing years of the last century.

[1] According to the revised estimate, the cost of the Sukkur Barrage scheme is expected to be Rs. 20·04 crores, or, including interest charges, Rs. 25·25 crores by 1934-5. Sir M. Visvesvaraya and Nawab Ali Nawaz Jung Bahadur estimate, in their Report on the Lloyd Barrage and Canals in Sind, that the value of agricultural production in the ultimate stage of the scheme may amount to Rs. 30 or 35 crores as against about Rs. 8 crores obtained at present from all irrigation works in Sind. As stated above the Sukkur Barrage was formally opened in January 1932.

[2] See *India in 1925-6*, p. 271; ibid. (1927-8), pp. 128-30; ibid. (1928-9), pp. 112-15; ibid. (1930-31), pp. 230-34; and *Agricultural Commission Report*, pars. 269-76.

R. C. Dutt, who took a leading part in it, showed how, by 1902 only about 38 crores of rupees had been spent by Government on irrigation as against 370 crores on railways. This disparity appeared especially objectionable on account of the railways being on the one hand a losing concern down to the opening years of the present century, and in view of the intensity of the famines at the close of the last century on the other. Dutt argued that under the influence of capitalists, speculators and manufacturers in England, pressure was brought to bear upon the Government to hasten railway construction under the guarantee system, with the result that it was overdone. Military considerations of strategy, and also a growing sense of responsibility for extending relief to the famine-stricken tracts, influenced the policy of the Government. It has already been pointed out that protective irrigation works were not paying and, therefore, progressed very slowly. Furthermore, the critics of Government policy alleged that the undue hastening of railway construction accelerated the decline of indigenous industries and led to the congestion in agriculture, thus partially defeating the object of the protective railways, namely to reduce the severity of famines.

The above controversy has since considerably abated for various reasons. Now that the railways have become normally a paying concern and do not involve a drain on the pocket of the taxpayer, his opposition to their extension, while it has not altogether died out, has considerably diminished in vigour. Moreover, as a result of the recommendations of the Irrigation Commission of 1901, Government's irrigation policy has become progressively liberal. In fact, some new works not contemplated by that body have been undertaken.

Turning to the merits of the controversy itself, we may say that while the exact proportion between railways and irrigation may be a matter of dispute, they are in no way antagonistic but supplementary and complementary to each other. It is clear that while an additional food supply can be secured by irrigation, its proper distribution in the country can be effected mainly by the railways. It is, however, true that towards the close of the last century Government's irrigation policy was not as progressive as it is to-day, and even to-day there exists considerable scope for the extension of irrigation, if considerations of immediate profit and loss are allowed less weight in deciding to undertake protective irrigation works. This applies particularly to Bombay, where, excluding Sind, less than four per cent of the total cropped area is irrigated from all the sources, Government's share being about half, though the new projects now under construction or contemplation

are calculated to extend it in the near future. In the Bombay Presidency, exposed as it is to the vagaries of a freakish monsoon, the importance of adequate irrigation facilities cannot be exaggerated. The organization of the Water Court and the Land Development Court of the Bombay Presidency Agricultural Show (1926) may be taken as showing a clear perception of this need by Government. So far as the whole country is concerned we seem to be on the horns of a dilemma. In those tracts where irrigation is highly remunerative, as in northern India, the liability to famine and unstable agriculture is not great, whereas in peninsular India, especially in the Bombay Presidency proper where the monsoon is very precarious, irrigation is not directly remunerative. It must, however, be remembered that strictly commercial considerations of profit and loss are out of place here and the question must be looked at from a broader point of view.

18. **Waterlogging and salt effervescence.**—Waterlogging and salt effervescence are dangers particularly associated with canal irrigation, and these dangers have not always been effectively guarded against in the past, so that soils have sometimes deteriorated as a result of irrigation. For example, in the Punjab, 125,000 acres were thrown out of cultivation in 1926-7 by the rise of subsoil water, and a much larger area by the appearance of salts (*kallar*) driven to the surface of the soil, and there is a danger of the evil spreading over a still larger area.[1]

In the Nira valley (Bombay) it has been definitely proved that alkali (*lona*) lands have arisen as a direct result of canal irrigation and that the evil is increasing every year.[2]

The enormous waste of water by the cultivator in canal-irrigated tracts, which is one of the causes which leads to waterlogging and salt effervescence, is universally admitted. But as the Agricultural Commission point out, this cannot be wholly attributed to the fact that the cultivator has no incentive to economize water which Government provides for him. No small percentage of wastage is due to the uncertainty of water supply. To ensure economy of water, the Agricultural Commission recommend that further investigation and experiment, which were started on the recommendation of the Irrigation Commission, should be undertaken both in the Punjab and elsewhere before a final decision against the sale of water by volume is reached.[3]

Lack of proper drainage in the canal tracts has not only been a handicap from the agricultural point of view, but has converted

[1] Brij Narain, *Indian Economic Life*, p. 383.
[2] Howard, op. cit., p. 45.
[3] *Agricultural Commission Report*, par. 277.

originally healthy tracts into malarious ones. Canal irrigation, therefore, is not only the work of the engineer, but also of the soil physicist, the agricultural chemist, and the medical and sanitary expert as well. The Agricultural Commission recommend that a careful drainage survey should in future form an integral part of all new irrigation projects and that drainage maps should be prepared.

19. **Canal Colonies in the Punjab.**[1]—We may conclude our discussion of irrigation in India by saying a few words regarding the Canal Colonies in the Punjab which have played a striking part in our irrigational history. In the Punjab the irrigation problems which have had to be faced by Government have been different from those in other provinces. Before the advent of irrigation in the eighties of the last century, the whole vast stretch of the country now irrigated by the lower Chenab, Jhelum and Bari Doab canals, was a desert owing to meagre and precarious rainfall. Hence 'it was necessary simultaneously with the introduction of irrigation to transport bodily whole communities into the new areas thus opened up' (Harris). Before the colonists arrived, the alignment of the water-course was made, the land in each colony tract was demarcated into large and small similar squares and rectangles, the village boundaries were settled, roads were marked out, and land was set aside in the vicinity for grazing and other communal purposes. On arrival the colonists had to build their houses and commence breaking up the land allotted to them. These colony villages were thus systematically planned and possess sanitary advantages superior to those of the ordinary villages. The colonists were judiciously chosen by the Revenue Officers from the specially congested districts of the provinces and from among the classes of hereditary landlords or occupancy tenants for holding the so-called peasant grants under which the bulk of the land is allotted. Groups of this kind connected by common ties were dispatched to the colonies as units to form separate village communities. The terms of grant vary in different colonies. The average area allotted to each individual is generally from one and a half to two squares or about forty to fifty acres. In most of the earlier colonies inalienable occupancy rights in the holdings were granted at the end of the term of probation, either free of charge or on payment of a nominal sum. But under a subsequent revised procedure 'occupancy rights are granted after a first term of years and after a further term tenants are given the option of purchasing alienable proprietary rights at a privileged price payable in easy instalments'. Larger grants are made to

[1] See Harris, op. cit., pp. 48-59; and Darling, *Punjab Peasant*, chapter vi.

hereditary landholders of substance and status and to men of means wishing to experiment in improved methods of cultivation and irrigation. Grants are also made in recognition of special civil or military services to Government. The development of the colony proceeds apace, once the colonists are settled in their new villages, by means of improved communications, metalled roads and railways and by the rise of towns and markets. Thus, what was once a treeless, waterless waste land has been converted by the beneficent hand of man into these flourishing canal colonies. Their principal backbone is the small peasant proprietor who holds nearly 80 per cent of the land. The financial results are striking. In the three principal colonies of Lyallpur, Shahpur and Montgomery, Government derived a net profit of Rs. 206 lakhs representing a dividend of 27 per cent on the capital outlay in 1924-5. In the same year the value of the produce raised in this area was Rs. 28½ crores. As M. L. Darling briefly puts it, 'the colonies have, in fact, opened for the Punjab an era of prosperity undreamed-of in the past.'

CHAPTER VIII

AGRICULTURE: LABOUR, EQUIPMENT AND ORGANIZATION

1. **The human factor: its unsatisfactory nature.**—It is no exaggeration to say that efficient agriculture depends on the qualities of the man behind the plough more than on anything else.[1] In order, therefore, to understand the present position of Indian agriculture, we must make an attempt to assess the merits and the defects of the Indian cultivator. As things stand at present, he must be acknowledged to be inferior in point of intelligence, enterprise and capacity for labour to the European or American farmer. His inefficiency, however, is not innate or rooted in the nature of things and is, therefore, capable of being remedied. He is bowed down with the heavy and weary weight of many burdens and handicaps, and the wonder is that he still continues to carry on the struggle for existence and is not altogether extinct.

The question whether race and climate have anything to do with the relative inefficiency of the Indian peasant is highly speculative and need not detain us. In practice, the only safe hypothesis is to assume that the major cause of the backwardness of the Indian cultivator must be looked for in the heart-breaking conditions under which he works. This view is borne out by the fact that the Indian peasant is comparatively alert, tenacious and enterprising in those tracts where the rains are dependable or where irrigational facilities are available and he can confidently expect to reap the reward of his labour. Where, however, conditions in this respect are unfavourable, he is apt to be lazy, pessimistic, easy-going and miserably poor. Dr. Voelcker, Consulting Chemist to the Royal Agricultural Society, who was sent out in 1889 to report on the agricultural practice in India from the modern scientific point of view, has borne admiring testimony to the careful husbandry 'combined with hard labour, perseverance and fertility of resource' of the Indian agriculturist. Opinions of this kind bearing the imprimatur of high scientific authority must be respected and should leave us in no

[1] 'A study of rural conditions in different countries leads to the conclusion that far more depends upon the human factor than is commonly supposed. Defects in character can and will nullify the richest gifts of nature, while what may appear to be insuperable difficulties are apt to disappear before the sustained application of human energy, human intelligence and human knowledge.'—Calvert, *Wealth and Welfare of the Punjab*, p. 25.

doubt as to the excellence which Indian farming is capable of attaining under favourable conditions. But we must not allow such laudatory remarks, torn out of their context and mainly intended to correct extreme views in the opposite direction, to lull us into a false sense of security. If the average cultivator in India had been as efficient and go-ahead as the unwary may be led to imagine from encomiums such as that of Dr. Voelcker, the rural problem in India would have been much simpler than it is. It would be not only erroneous but positively mischievous to suppose that the personal factor in Indian agriculture is all that one could wish it to be and that no special effort is needed to improve the cultivator himself. It is a matter of the most vital importance to recognize clearly the actual defects and shortcomings of the cultivator, due to whatever causes, and seek remedies for them directly through education in the widest sense of the term, as well as indirectly through an improvement of external conditions. If we would paint the Indian peasant, warts and all, without setting down aught in malice, we should have to admit that, generally speaking, he is lacking in originality and initiative and is too much wedded to traditional methods and practices, many of which are wasteful and unscientific. Also, he is steeped up to the lips in superstitions and prejudices, which in their totality are a serious drag on his economic progress. The dead-weight of his inertia, apathy and conservatism is an obstacle in the way of every reform proposed for alleviating his condition.[1] By his insanitary habits of living, he draws upon himself much avoidable physical suffering, with its attendant evils of low vitality and incapacity for persistent and strenuous labour, and a sombre outlook on life. He is ignorant, improvident and reckless, a combination of qualities which make him an easy prey to any one desirous of taking advantage of his weaknesses. He is too prone to waste his substance and energy in needless litigation and too fond of locking up his capital in jewellery and trinkets instead of devoting it to such forms of personal expenditure as would increase his efficiency, or employing it in more remunerative investment. He generally spends far beyond his means on marriages and other ceremonies and thus walks with open eyes into the money-lender's parlour, from which he is rarely able to get out. He shows an insufficient appreciation of the truth that God is wont to save only by human means, and a tendency to rely too much on Providence or some other external agency, and too little on personal endeavour for remedying every evil which

[1] 'The villager refuses even to contemplate uplift. . . . He has no time or energy for anything but winning bread and the continuance of the species.'—F. L. Brayne, *The Remaking of Village India*, p. 136.

he may be suffering from and for which he is generally inclined to blame Fate or Providence rather than himself.[1]

Everyone acquainted with rural conditions in India will admit that all these are real evils, and a direct frontal attack must be made on them. 'Take care of his environment and the cultivator will take care of himself' is a good enough motto, but a better is, 'Improve at once both worker and environment, so that each may help the other.'

2. **A comprehensive scheme of rural education.**—The only way of changing the psychology and the social and personal habits of the peasant is to educate him. It is obvious that so long as ignorance and illiteracy prevail in our villages and barely six per cent of the population can read and write, all talk about rural progress is futile.[2] The absence of widespread literacy and of a suitable system of rural education is largely responsible for many of the evils we deplore: illiteracy aggravates indebtedness, promotes improvidence and extravagance, impedes the progress of improved agriculture and, what is more serious than anything else, prevents that mass awakening without which no reform can be permanent. For the problem of rural uplift cannot be solved until the cultivator himself desires his own improvement and can think and act for himself. The present system of education needs to be remodelled so as to suit it to the needs of the rural masses, and in preparing textbooks and laying down curricula, the Education Department must absorb the result of the labours of, and work in consultation with, other departments whose servants are brought into contact with the villagers in the course of their duties. The education imparted in the rural schools must be such as will promote interest in and love for agriculture and rural life in general and should cease to deserve the criticism which is often made against it that it creates a bias in the mind of the rural scholar against his ancestral occupation and makes him soft-handed and unfit for agricultural work.

[1] In connexion with the uplift work in the Gurgaon district, Punjab, F. L. Brayne, who is the father of the movement, tells us of a new proverb invented for Gurgaon, which says, 'Zamindar ki be-aqli parmeshar ka qasur.' Providence is blamed for what is really the fault of the cultivator himself (see Brayne, op. cit., p. 12).

[2] How greatly the illiteracy of the peasant has hampered the work of rural uplift in India will be realized if the spread of the new varieties of Pusa wheat is compared with the Marquis (a cross between Canadian and Indian (Calcutta) wheat) in Canada and northern States of the Union. In fifteen years (ending with 1927) the Pusa wheats have covered a little over 2,000,000 acres. In about the same period, the area under Marquis has exceeded 20,000,000 acres (see Howard, *Indian Agriculture*, p. 35).

The present tendency of attaching a spurious value to mere literacy, which makes a person think that he is in quite a different class from his unlettered fellows and fires him with the insensate ambition of driving a quill rather than a plough, must be destroyed by taking special pains to inculcate the dignity of labour and also by making education universal and compulsory. Co-operative education societies such as those in the Punjab offer a hopeful means of securing attendance at school. The benefits of education should be extended to both the sexes and it should not be considered necessary to hold up female education till there is a sufficient number of women teachers. Spread of literacy among women is indispensable for the spread of *lasting* literacy amongst the young.[1] Nature study of plant and animal life, school gardens and farms (not so much to teach his business to the agriculturist, who probably knows it far better than the teacher, but for the sake of atmosphere), text-books dealing with rural subjects, manual training, education with special reference to local subsidiary industries, physical and boy-scout training and lessons in first aid would be some of the items in a complete scheme of rural education. The educational system so devised must be largely controlled by the farmer himself and must employ efficient and well-paid teachers imbued with the spirit of service and possessing what is called the 'country sense'. Not the least important work connected with the spread of education in rural areas, is the production of good books by translations from foreign languages or otherwise. Insufficient attention has been paid hitherto to this all-important matter.[2]

A proper scheme of adult education is also necessary in order to increase the all-round efficiency of the farmer and in order that the present generation should be in a position to take advantage of modern developments in agriculture. Adult education is also important as tending to prevent the too frequent relapse into illiteracy of the young villager as soon as he leaves his school. It should also include women within its scope as it is most important to improve their ideas so that they should not act as clogs in the wheel of progress. The movement for adult education is at present practically confined to Bengal and the Punjab. Though it is mainly a matter for non-official activity, Government should assist it wholeheartedly, especially by financial support to co-operative societies.[3]

[1] *Agricultural Commission Report*, par. 544.

[2] In this chapter we have made considerable use of our paper 'Some Aspects of Rural Reconstruction in India' in the *Indian Journal of Economics*, Conference Number (1928).

[3] *Agricultural Commission Report*, par. 449.

Special machinery is needed for carrying literacy and general enlightenment to grown-up people and should include such things as night schools, continuation classes, libraries and reading rooms, magic lantern and cinema shows, etc. The cinema especially has great uses as an educative agency. It brings in new wants and fresh incentives to exertion and as a vehicle for carrying enlightenment to the untutored mind of the villager it is far more effective than the mere written or spoken word. Much of adult education must depend on such agencies as these rather than on formal instruction in regular schools. In this connexion reference may be made to an interesting development in adult education in rural areas. Demonstration trains are being run on some of the main railway lines like the Eastern Bengal Railway as a result of the co-operation between various bodies such as the Railway Publicity Department, the Public Health, Industries, Co-operative, Veterinary and Agricultural Departments, etc. Apart from interesting exhibits displayed inside the train, open-air demonstrations including lectures with cinema or lantern slide shows are given.[1]

3. **Physical inefficiency of the peasant: its causes and cure.**[2]— Many of our villages are ravaged by 'major' diseases, like malaria, plague, cholera, dysentery, tuberculosis, kala azar, hookworm, and the so-called 'minor' diseases such as skin complaints, leprosy, etc. This is one of the major causes of the inefficiency of the peasant. Disease may reduce the economic power of a community by carrying off the strong and the able-bodied and decreasing the proportion of workers to non-workers. Secondly, it often debilitates those whom it attacks even when it does not kill them, thus causing not only shortage of labour but also shortage of labour power. Thirdly, it often incapacitates the workers just when agricultural operations are in full swing; and lastly, it tends to make people lethargic, listless and fatalistic. A campaign of public health and self-hygiene must be opened on a large scale to wipe out disease, create an active and enlightened 'public health conscience' and overcome prejudices, some of which are all the more formidable because of their being bound up with religion.

Health publicity bureaux, baby weeks, Red Cross work, child welfare, maternity leagues, and co-operative dispensaries have all a part to play in the service of village health and sanitation. Drainage of irrigated tracts and marshy swamps, supply of pure drinking water and village housing are all necessary. Substantial progress in the campaign against malaria, 'our greatest morbidity scourge,' can only be achieved by vigorous action by the people

[1] See *Report on Indian Railways* (1926-7), p. 92.

[2] See *Agricultural Commission Report*, Minutes of Evidence, vol. II, p. 141.

themselves assisted by Government. A much wider distribution of quinine is necessary and the Central Government should make itself responsible in this important matter and address itself vigorously to the problem of cheapening quinine and increasing its supply by extending the cultivation of cinchona.[1]

The absence of adequate medical facilities in village areas constitutes a serious difficulty. It is necessary that the claims of indigenous systems of medicine should be properly investigated and the use of such indigenous drugs as are found to be effective should be encouraged as substitutes for the more expensive allopathic drugs. The Bombay Government have recently started an interesting experiment for increasing medical facilities in rural areas by the establishment of the Village Aid Scheme, under which, in certain selected districts of the Presidency, primary school teachers undergo a short course of medical training at the district civil hospital and then return to their villages with medical chests. They treat simple cases, render first aid and send the more serious cases to a neighbouring dispensary.

Closely connected with rural sanitation is the problem of providing sanitary and decent dwellings in the villages. It must not be supposed that the housing problem exists in cities alone. For although there is more space in the villages, the houses themselves are generally flimsy structures of mud, with a thatched roof and a single door and hardly any windows, dark and infested with mosquitoes, rats and other vermin. Human beings and animals often share the same room, breathing each other's exhalations, an arrangement injurious both to man and beast. A supreme effort is needed to dismantle these village 'slums' and replace them by decent and clean dwellings. Rural co-operative housing societies financed and otherwise helped by Government should be started. The State may not only grant loans directly but may also help by guaranteeing the interest and redemption of loans made by special financial institutions started for the purpose.

4. **Need for closer contact between village and town.**—The reform of the villager consists essentially in replacing the various mistaken, stupefying and pauperizing ideas which hold him down at present, by new, daring and inspiring ones. Anything, therefore, that fosters the contact of the village with the outside world and brings it within the orbit of more progressive influences emanating from the town should be welcome. The villages are no longer landlocked and isolated as of old, but much still remains to be done in

[1] See the evidence of the Public Health Commissioner with the Government of India, *Agricultural Commission Report*, Minutes of Evidence, vol. I, p. 147. Also ibid., pars. 411-2.

the way of cheap and easy transit by more and better roads and railways. We may also refer here to the post-office as a civilizing agency.[1] The part which the post-office can play in the life of a people will obviously depend on the extent to which literacy prevails. The provision of postal facilities, however, itself stimulates the desire for literacy and helps to sustain literacy once attained. The post-office may also help in propaganda work by putting up interesting bulletins prepared specially for the instruction and amusement of the villager. Postal savings banks tend to promote thrift among the people, and, coupled with the cash certificates system, make investment of small rural savings possible. A minor advantage of the post-office lies in its serving as an agency for the distribution of seeds and cheap quinine in villages. Wireless and broadcasting have immense possibilities and will increase rural amenities and bring about an undreamt-of change in the life of the village people. Developments in this connexion, however, are not likely in the approximate future.

5. **Methods of propaganda work.**—In order to improve the cultivator physically and mentally, continuous and intensive propaganda, through officials and other public servants as well as through non-official agencies, is necessary, and much care is needed in selecting the right type of men for propaganda work. Knowledge of rural conditions, energy, tact, imagination and genuine sympathy with the villager and his difficulties are essential qualifications.[2]

Making an effective appeal to one's hearers is an art which the would-be reformer must take some pains to learn before he confronts a village audience. Many an excellent discourse replete with useful knowledge fails to take effect because the speaker does not understand how to put things to his hearers. As F. L. Brayne acutely remarks, 'If the village audience maintains a stony silence, the lecturer can cut no ice, but once the villager can be drawn into an argument or made to laugh at himself, the battle is won.' The speaker must be *L'Allegro* as well as *Il Penseroso*. He must jest as well as preach and it is not given to everybody to be able to do this.

Also the actual reform advocated must be within the reach of the agriculturist and it must be thoroughly tested before it is preached. Anything in the nature of unreal theorizing without

[1] See the memorandum and evidence of H. A. Sams, Deputy Director-General of Posts and Telegraphs, *Agricultural Commission Report*, Minutes of Evidence, vol. I.

[2] The response of the Indian peasant, 'would be proportionate to the accessibility and practicable character of the opportunities provided and to the sincerity and humanity of the people directing the work of instruction and experiment.'—Visvesvaraya, op. cit., p. 175.

thorough practical acquaintance with the methods in use must be avoided. The technique developed in India is the result of centuries of practical experience and contact with the soil, and, in the words of Sir James Mackenna, 'has been built up on the traditional customs of years in which reside, though unexpressed and unexplained, deep scientific principles, the reasons for which can only gradually be elucidated.' There is no doubt that the agriculturist in India has much to learn from the agriculture of more advanced countries. The fact that he cannot always give reasons in explanation and justification of his methods is a handicap, because blind obedience to tradition prevents quick adaptation of agricultural practice to changed circumstances. Methods which were useful at one time may survive their usefulness and because the knowledge of the agriculturist is purely empirical he is not able to realize this quickly. All the same, for reasons suggested above, the modern investigator should presume, until the contrary is proved, that there is some rational foundation for existing methods, and patient study and inquiry are necessary before improvements can be suggested with advantage.

6. **Hired agricultural labour.**—The foregoing discussion of the personal factor in Indian agriculture has been primarily with reference to the cultivator who owns the land he cultivates. For the sake of completeness of treatment, it is now necessary to say a few words, first about hired labour, and secondly about the part which the landlord plays in the agricultural economy of India. As regards hired labour, the position must be pronounced far from satisfactory. Agricultural labourers who hire themselves out are partly landless labourers, a class which is at present small but which is tending to grow, and partly those who possess bits of land, which, however, are so small that their owners are under the necessity of hiring themselves out for work on other people's land in order to be able to make a living. Labour drawn from either of these classes is dear, inefficient and unreliable. The modern facilities for migration as well as the increasing demand for labour on the part of railways and public works, and of commerce and industry, often put the labourers in a strong position. Further, owing to the heavy mortality caused by plague and the recent influenza epidemic, there has been an appreciable decrease in the number of labourers. Lastly, there is also a certain tendency on the part of small peasant proprietors to retire from personal labour on their farms and rely on hired labour as soon as their financial position permits the indulgence of this luxury. All this has resulted in a rise of the wages for hired labour. But there has been no corresponding improvement in its efficiency. The relatively

high wages, instead of serving as a stimulus to greater exertion, seem to have the opposite effect. The labourer chooses to work less and there is no perceptible increase in his standard of life, and, through a higher standard, in his efficiency. The labourer, in short, has the same weaknesses and shortcomings as characterize the cultivator and he also may be expected to benefit by the measures devised for bringing about a general revival in the rural areas.

7. **The landlord and his place in rural economy.**—One of the greatest difficulties under which Indian agriculture labours is its comparative failure to attract the necessary brains, enterprise and capital. Modern amenities of life, such as education, sanitation and well-developed communications, have been largely monopolized by the towns, in spite of the fact that the money for the provision of these facilities has been drawn mostly from the rural side. The wider opportunities and greater attractions offered by the town have induced an exodus from the village to the urban areas of its best intelligence and enterprise, leaving a blank in the village which it is not easy to fill. Lastly, the educated people of the towns and the landlords have not hitherto cared much to study rural problems and to understand and meet rural needs. Their knowledge, resources and enterprise have not been made available for the promotion of village prosperity. The ignorance of the urban population in this country on agricultural matters is 'so colossal and so genuine as almost to deserve respect.'[1] The leadership of big landlords such as Bakewell, Bates and 'Turnip Townshend', to whom English agriculture owed so much in the eighteenth century, has had no counterpart in India. One of the hopes entertained by those responsible for introducing permanent settlement in Bengal was that it would create a class of big landlords who would live on their estates and whose personal influence and material help would be of great benefit to the cultivators. It was expected that the landlords would act as powerful instruments, not only of material but of intellectual and cultural advance in the rural areas. This expectation, however, has unfortunately not been fulfilled. The landlords with very few exceptions have preferred to live in the big towns away from their properties and interest themselves in their estates and tenants merely as sources of rents. The only function they perform is that of a distant suction pump for drawing rents from the tenants with such thoroughness as the tenancy laws permit. Absentee landlordism is the rule, not only in Bengal but also in other parts of the country wherever there is a

[1] Adapted from A. Collett's remark quoted by Calvert, *Wealth and Welfare of the Punjab,* Preface, p. i. The observation refers to English conditions but is not less true of India.

considerable landlord class. Speaking of the evils of absentee landlordism Carver says, 'Next to war, pestilence and famine, the worst thing that can happen to a rural community is absentee landlordism.'[1] The evil is particularly serious in those parts where the zamindari system prevails, though it is not altogether absent even in rayatwari areas. We may say that the landlords, as a class, are even more of a detached and outside agency so far as the development of land is concerned than the State. The State has at least charged itself with such important functions as provision of irrigation facilities, roads and railways, agricultural education, grant of takkavi loans, etc. whereas the landlord as a rule does nothing whatever for the improvement of the land. It is of the greatest importance to agricultural progress that it should secure the active interest of the landlord class; this would prevent rack-renting and establish personal relations between landlord and tenant to their mutual advantage, and it would ensure more rapid progress. The big landlords possess at least two requisites of progress, namely, capital and intelligence, and if they only develop a new sense of values and realize that there is not only greater profit, but also greater pleasure, in living in the country and helping forward the cause of rural renaissance than in idling away their time uselessly in the cities, we shall not have to wait for the slow process of a general public awakening before agricultural reform makes any considerable headway. The landlord can help reform in various ways, by starting home farms, building up pedigree herds of cattle, producing improved strains of seed and introducing more efficient implements and, last but not least, by familiarizing the bucolic mind with the idea of progress.

One of the reasons why the landlords do not live in the villages is the total absence of the amenities of civilized life in rural areas, and as this defect is removed they will no doubt be encouraged to come and live among their tenants. But it ought to be the privilege and the duty of the landlords themselves to help in increasing the attractions of the countryside. They must not wait for the amenities to be created by the efforts of the State or other agencies but must try to create them themselves by living in the villages and promoting sanitary and educational reforms there. It would indeed be unreasonable, not to say undesirable, to insist that everyone who owns land must live on it. It would be absurd to suggest, for example, that a prosperous and highly competent doctor in a big city should not own any land unless he is prepared to go and live on it. It may be far more advantageous, not only from the

[1] *Principles of Rural Economics*, p. 377.

individual point of view but also for the community, that he should be in a position to give undivided attention to his profession. At the same time, it would be unjust in any way to penalize or discriminate against people who are earning money in other occupations and who are desirous of investing their savings in land without giving up their occupations in favour of agriculture. Such a procedure is sure to bring down land values and check agricultural development by preventing the free flow of capital into it. It would, however, always be possible for the landlord, whose personal absence from his property is unavoidable and pardonable for reasons suggested above, to see to it that he is not rack-renting his tenants and is treating them in such a manner as to produce in them an adequate incentive for careful cultivation of the land. The case of a landlord, however, who is not following any alternative profession and who is living entirely on the rents from his estate is on a different footing. It is clear that he owes it both to himself, his tenants and to the community in general that he should actively interest himself in the development of his estate.

8. **The duties and responsibilities attaching to land-ownership.**—It has always been recognized that, of all forms of property, property in land carries with it special duties and responsibilities. On purely theoretical grounds, it may occur to us to ask how the position of a shareholder in a joint-stock company, who is merely content with drawing dividends without taking any part in the management, is different from that of the landlord who is similarly content with drawing rent and doing nothing else. The answer to this is, in the first place, that it *would* be a good thing if the shareholder were to take a personal interest in the affairs of his company; his failure to do so is often the cause of the mismanagement and consequent ruin of many a joint-stock enterprise. It must, however, be remembered that the average shareholder has neither the leisure nor the necessary knowledge and ability for taking an intelligent interest in the affairs of his company and the enterprise in which it may be engaged. Again, he is only one of many shareholders and his individual attitude does not alter circumstances for better or for worse to any appreciable extent. Because a particular shareholder does not actively help in the management, it does not follow that the concern is left without management altogether. Joint-stock organization has reached such a high pitch of efficiency that there is generally ample provision for able management and leadership in spite of the indifference of the generality of shareholders. Also, as regards the workmen or labourers, we must remember that their position is more favourable than that of agricultural tenants because they can unite and create organizations such as trade unions for

effectively expressing and enforcing their wishes. Lastly, as J. M. Keynes has pointed out, 'the trend of modern joint-stock institutions when they have reached a certain age and size, is to socialize themselves and assume the status of public bodies rather than individualistic private concerns. The general stability and reputation of the firm are the first consideration and dividends assume quite a secondary position.'[1] In these circumstances, the interests of the labourers (and the consumers) are particularly looked after so as to avoid public criticism. In all these respects, the case of land stands by itself and the idea that all property is a trust to be administered on behalf of the community is felt to have a greater applicability to land than to other forms of property. And in the present helpless condition of the Indian ryot, it is necessary to give prominence to this idea and to make the landlord an effective and useful agent in rural uplift work.

Technique and Equipment

9. **Technique: methods of cultivation.**—The Indian agriculturist for the most part follows methods of extensive cultivation which are unsuitable in view of the smallness of the average holding, with the result that the yield is much smaller than it need be. Contrasting Indian conditions with those in Japan in this respect, Sir M. Visveswaraya writes: 'Japan, although not entirely self-sufficing in the matter of food, maintains normally a population of fifty-six millions on a cultivated area of seventeen millions, or one-third of an acre per head as against India's five-sixths of an acre.' Agriculture is carried on in Japan and China very intensively and thoroughly, almost like gardening, and the salvation of the Indian peasant lies similarly in adopting intensive methods of cultivation. This involves, among other things, more expenditure on permanent improvements and irrigation, more efficient cultivation, careful selection of seed, a better system of rotation of crops and adequate manuring. We have already disposed of the first two items in this list. As regards methods of cultivation, they can occasionally be seen to reach a very high standard in India, but in many parts of the country there is considerable scope for improvement in respect of preliminary preparation of the soil, sowing, harrowing, weeding, thinning and spacing out, harvesting, etc. The value of pure seed of good quality is great, but very often the farmer is either not careful enough in selecting his seed or he fails to get it even when he realizes its importance. There are a certain number of seed societies and seed farms, but they need to be multiplied many times to

[1] *The End of Laissez-faire*, pp. 42-3.

ensure an adequate supply of seed of high quality to the farmers in all parts of the country. The Agricultural Commission recommend the creation of a separate organization, for the distribution and testing of seed, in charge of a Deputy Director under the Director of Agriculture (*Report,* par. 103). As regards rotation of crops, there has been a distinct falling-off from former standards. The lure of immediate gain has in too many cases led to an unhealthy and in the long run unprofitable concentration on certain crops like cotton and wheat. Bitter experience will no doubt eventually make the cultivator realize the necessity for a rational system of rotation, but something may also be done by propaganda. A recent welcome development in certain parts is the introduction of groundnut as a rabi crop into the scheme of rotation and this has been facilitated by the immediately profitable character of this particular crop. The possibilities of giving a place to fodder crops in a regular system of rotation need to be properly explored, especially in view of the present acuteness of the problem of an adequate food supply for the cattle.

10. **Manure.**[1]—The application of manure and fertilizers is a vital factor in increasing the yield from the soil especially in view of the intense pressure on the land and the fall in world prices of agricultural commodities, calling essentially for more efficient methods of agricultural production. It is, however, not always the farmer's fault that the land is insufficiently manured. There may be no irrigation facilities, and heavy manuring of land in dry tracts is worse than useless. Also, it may often be that the required manure is very scarce and difficult to get, or too expensive, having regard to the limited means of the average cultivator. But on the whole the question of proper manurial treatment of the soil and of the careful conservation of manure is much neglected in this country. One of the wasteful practices to which people in India are addicted is the use of cow-dung as fuel. This should be discouraged, and in so far as the use of farmyard manure as fuel is a matter of necessity,[2] the solution would lie in providing alternative forms of fuel. Waste areas near villages should be planted with fuel trees, and fuel reserves should be established as near the village as possible through the agency of the Forest Department and local bodies. The possibilities of afforestation

[1] See *Agricultural Commission Report,* pars. 80-95, *Review of Agricultural Operations in India* (1928-9), pp. 87-90 and *India in 1930-31,* pp. 191-3 and 207.

[2] The use of cow-dung as fuel is not always due to the fact that no other fuel is available. It is often just thoughtlessness or prejudice. In the Punjab, for example, the belief is apparently common that ghee cannot be made without dung cakes (see Brayne, op. cit., p. 6).

for increasing fuel supplies and of cheap railway freight for fuel should be thoroughly examined. Cattle urine is usually allowed to run to waste, and there is still much prejudice against the use of human excreta as manure, though it is gradually breaking down. The Indian cultivator has much to learn from the Chinese and the Japanese cultivator with regard to the manufacture of composts. In China there is no organic refuse of any kind which does not eventually find its way back to the land as manure.

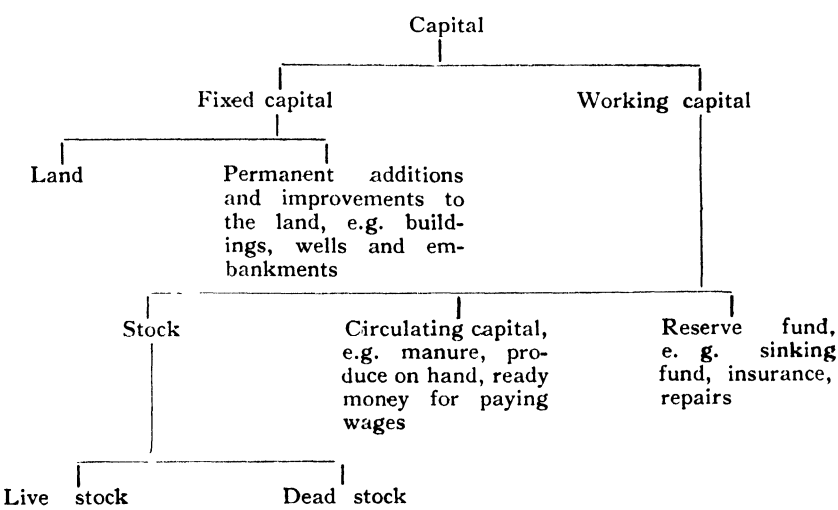
Mr. Brayne was able to get the villagers in the Gurgaon District, Punjab, to dig pits into which all village sweepings were to be thrown so as to serve the double purpose of cleanliness and conservation of manure. More than forty thousand pits, all six feet deep and ten or twelve feet wide, were thus dug in the course of a few years. Mr. Brayne also attempted to induce the villagers to use the 'pits for latrines for men and women with hedges for privacy and planks across for convenience' to ensure clean villages and heavy crops. The full utilization of human excreta and all garbage and sweepings for agricultural purposes would mean that the present drainage systems in several cities and towns, where all such manurial matter is let into the sea or river water, would have to be changed. Poudrette is the least obnoxious form in which night-soil can be supplied to the cultivator and in this connexion the methods adopted at Nasik are worthy of study by other municipalities. The value of leguminous crops in rotation as a source of combined nitrogen has always been recognized by the Indian cultivator. The Agricultural Departments, however, should investigate the best methods of employing leguminous crops to increase soil fertility.

Green manuring with *san* hemp, etc., is in use only in the most progressive tracts. *San* hemp is objected to by the small cultivator because it is an exhausting crop and often makes it impossible for him to take a second catch crop. The economics of green manuring from the standpoint of the small cultivator need to be worked out. The possibility of growing crops like groundnut which will supply green manure without impairing the commercial value of the crop is also worth consideration. A programme of experiment with the object of ascertaining with exactitude the extent to which fertilizers can profitably be used is necessary. The Agricultural Departments are not in a position, as things stand at present, to give definite advice to the cultivator about the economic use of fertilizers. It is, therefore, gratifying that the Imperial Council of Agricultural Research has constituted a Fertilizers Committee (1930) to carry out investigations of problems relating to the conservation of indigenous manurial resources and the use of fertilizers and the pre-

paration of a programme of research on fertilizers. A small grant to each province has been sanctioned to collect and correlate data on manurial experiments carried out in the provinces. This is likely to prove of value in the future. In canal and other irrigated areas, ammonium sulphate, bonemeal, fish manures and oil-cakes are being used in gradually increasing quantities, thanks to the propaganda work of the Agricultural Department. The extent to which the demand for artificial manures is increasing throughout India is demonstrated by the increase in the quantity of imports of such manures from 21,590 tons in 1925-6 to 74,890 tons in 1929-30. The quantity declined to 51,000 tons in 1930-31 owing to the agricultural depression.

EQUIPMENT

The following classification has been suggested by Mr. Keatinge as giving a comprehensive idea of the varied equipment which a farmer ought to possess:—



Mr. Keatinge remarks that, 'if a man's business is to be put on a sound basis. . . and the maximum profits extracted from the land, every form of capital enumerated above must be provided for in some way or other; and it is only by a proper understanding of each form of capital that correct accounts can be kept, and the true source of profits and losses determined.'[1]

11. **Implements.**[2]—The Indian agriculturist still largely uses his old and simple implements which are cheap, light and portable,

[1] Op. cit., pp. 103-4.

[2] See *Agricultural Commission Report*, pars. 107-10.

easy to make and to repair, and within the capacity of draught oxen; but greater productivity obviously depends on the use of improved implements. Iron ploughs, sugar-cane crushers, small pumping machinery and water-lifts have been introduced to some extent, but much still remains to be done in this direction. Other improved implements distributed include harrows, hoes, seed drills and fodder cutters. American methods based on an extensive use of agricultural machinery are ill-suited to a country of smallholders, but these limitations are capable of being partly overcome by co-operative and joint farming. It is interesting to note that a large number of tractors are being employed by farmers in Gujarat. Most of these have been bought and are being used by speculators who work on hire, though a few of the larger landowners have purchased their own. In upper Sind, the northern part of Bihar and Orissa and the Central Provinces the larger zamindars are showing considerable interest in tractor development, and if demonstrations could be carried on and reliable data obtained, this is likely to result, in the near future, in increasing the demand for tractors which make possible deep and thorough cultivation of the soil such as is beyond the capacity of ordinary bullocks, and effect great saving of time.[1] There is also a large scope for the improvement of agricultural implements worked by hand power and cattle. Intensive propaganda is necessary to induce a large number of cultivators simultaneously to use improved implements, because one of the difficulties in the way of their adoption by the individual cultivator is his fear of ridicule and of being regarded as a crank. The work of popularizing the use of improved implements clearly falls within the scope of the Agricultural Departments, agricultural associations and co-operative societies, and it is desirable that all these agencies should combine and co-ordinate their activities. The Agricultural Departments should give careful thought to the question of cheapening improved implements, for example, by mass production of their wooden parts. Improvement of existing types of implements rather than the introduction of new types should be the aim. Excessive multiplication of implements is likely to confuse the cultivator and make him suspicious of the policy of the Agricultural Department. The railway authorities should be induced to give their most sympathetic consideration to the question of concession rates on agricultural implements and machinery. One of the useful measures adopted by the Agricultural Department is the appointment of agricultural engineers to advise cultivators and to arrange for the installation

[1] See *Annual Report of the Director of Agriculture, Bombay Presidency* (1926-7), and *India in 1930-31*, p. 195.

of machinery, particularly for irrigation, etc. Attention is also being given to the manufacture of improved implements cheaper than those used in the west and simpler to operate. To ensure full benefit from new implements, it is necessary that they should be manufactured in the country itself and full provision should be made for the supply of spare parts and facilities for repairs. The Agricultural Commission suggest that if the protective duty on the import of iron and steel is found to impose a serious handicap on the Indian manufacturer, a rebate might be given on any iron and steel imported for the manufacture of agricultural machinery and implements. Agricultural machinery valued at several lakhs of rupees was exhibited at the great Bombay Presidency Agricultural Show held at Poona in October 1926. The machinery exhibited was, however, for the most part of foreign manufacture, and if special efforts are put forth—including State aid to indigenous manufacturing firms—our present dependence on foreign supply may soon be expected to diminish considerably or vanish altogether.

12. **Livestock.**—Cattle are the most important part of the livestock possessed by the Indian cultivator. 'Without them the fields remain unploughed, store and bin stand empty, and food and drink lose half their savour, for in a vegetarian country what can be worse than to have no milk, butter nor ghee?'[1] In India, cattle supply practically all the motive power for ploughing, for lift irrigation, etc. They are also the principal source of the manure commonly used. Also, carting for hire is almost the only subsidiary rural industry in India, and strong and healthy cattle are necessary as draught animals. Again, the improvement of cattle is important for the development of a well-organized dairy industry, which is often mentioned as offering great possibilities as a subsidiary rural occupation in India. Lastly, the necessity of an abundant supply of milk is obvious in a vegetarian country where milk affords the only easy means of rendering the diet of the people rich enough in nutritive elements for health and strength. In spite of the supreme importance to India of an adequate and healthy livestock, conditions in this respect leave much to be desired.[2] The country is maintaining an excessive number of cattle but they are so

[1] Darling, op. cit., p. 31.

[2] The first general quinquennial census of livestock in British India was undertaken in 1919-20 and the second in 1924-25. The latest (1929-30) returns indicate that the total number of livestock in British India is 218,060,000, the bovine population alone—that is to say oxen and buffaloes—totalling 151,339,000. Sheep and goats amount to 61,944,000, and the remainder, consisting of horses and ponies, mules, donkeys, and camels, to 3,777,000. A large number of these cattle are economically superfluous. See *Report of the Third Census of Live-stock held in 1930* and *India in 1930-31*, p. 168.

deplorably poor and ill-fed as a general rule that there is a serious deficiency of cattle power. There are 67 cattle per 100 acres of net sown area. The inter-provincial distribution of cattle is markedly irregular, even when allowance is made for the nature of the land to be tilled, the extent of well irrigation, the amount of scrub and jungle, the rural population and size of holdings, etc. Considering the general average, the Agricultural Commission argue that, in whatever respects Indian cattle may be lacking, they do not lack in numbers. Holland possesses the largest number of cattle in relation to the size of the country and yet she has 38 cattle per 100 acres of cultivated land. Egypt, where general conditions under which agriculture is carried on are much more similar to those obtaining in parts of India than in Holland, there are 25 cattle per 100 acres of cultivated land.[1]

The Agricultural Commission are of the opinion that the census figure of livestock in India suggest a vicious circle. 'The number of cattle within a district depends upon, and is regulated by, the demand for bullocks. The worse the conditions for rearing efficient cattle are, the greater the numbers kept tend to be. Cows become less fertile, and their calves become undersized and do not satisfy cultivators, who, in the attempt to secure useful bullocks, breed more and more cattle. As numbers increase, or as the increase of tillage encroaches on the better grazing land, the pressure on the available supply of food leads to further poverty in cows, and a stage is reached when oxen from other provinces or male buffaloes are brought in to assist cultivation, as in Bengal.'[2]

13. **Problem of fodder supply.**—The cattle in India are not only overworked but also ill-fed. Tradition and custom fix the responsibility for finding food for his cattle on the European stock-owner. This is not so in India where the cultivator rarely puts forward any special effort to keep his animals in efficient condition—a task difficult enough in any case owing to the natural handicap of periodical droughts and fodder famines. Over the greater part of India there is a shortage of fodder from December to July. The condition of the cattle is especially deplorable between March and June when they roam about on the parched fields picking up a precarious living, and a large number of them are reduced to bags of bone by the time the rains commence. As soon as the rains set in and the young grass begins to grow, they gorge themselves on it and suffer from various diseases as a consequence.[3] As

[1] *Agricultural Commission Report*, par. 188.
[2] Ibid., par. 168.
[3] See *Rural India* (April 1927), p. 188.

Keatinge says, there is hardly any lesson that the people in India have to learn 'more important than the growing, efficient storage, and economical use of fodder crops'.[1] The problem of an adequate fodder supply is even more serious than that of food, as fodder is not easily transported from place to place on account of its large bulk and small value. The old days of extensive pastures are gone, never to return, owing to increase of cultivation. No considerable additions to existing grass areas are possible. But it is possible to increase the productivity of land already growing grass. A more sympathetic forest administration in the matter of providing grazing facilities and fodder will remedy the situation to some extent. The possibilities of fodder supplies from forests in times of scarcity should be carefully examined and grass cutting should be preferred to grazing.[2] The common pasture land in the village is too small in area, and moreover, owing to the carelessness of the villagers, it is rendered less valuable than it might be, being generally blocked with brambles and useless trees and bushes of all kinds. It is necessary that people should learn the value of growing fodder crops like Egyptian clover, leguminous fodder crops, etc., and laying down pastures. Conservation of fodder stacked dry or preserved green in silos or pits is a matter which requires careful attention. Every effort should be made to prevent wastage, and suitable chaff-cutters should be used for the purpose.[3] Stall-feeding should be more widely resorted to. Government may encourage all these methods by rewards or remissions of land revenue and premia for well-kept cattle and fodder. The economical use of fodder supply implies the reduction in the number of useless cattle. A large number of maimed and worn-out bullocks and barren cows are maintained in a half-starved condition. In western countries they would be slaughtered for food. In India, the demand for beef is comparatively negligible, and killing of useless cattle is a procedure against which the sentiment of the cultivator and a large part of the public revolts. The cultivator does not kill them but has no objection to starving them. His attitude is that of 'thou shalt not kill but need'st not strive officiously to keep alive'. It would really be much kinder both to himself and to the animals, who are uselessly kept alive in wretched condition,

[1] Op. cit., p. 123.

[2] The Agricultural Commission recommend that where grazing is allowed selective control of it in favour of superior stock should be exercised (see *Report*, par. 218).

[3] It is interesting to note that the Punjab peasant is realizing the economy of fodder secured by the use of fodder cutters, no less than 14,250 of them being purchased in 1930-31 (*India in 1930-31*, p. 1914).

if the Indian cultivator were to take a more business-like view of the matter like the western farmer. But the prejudices in this connexion are so deepseated that we shall have to wait long for reform in this direction. Another way to reduce the pressure on the available supply of fodder is to evolve dual-purpose breeds which will render buffaloes largely superfluous as sources of milk.[1]

14. **Cattle breeding.**—Professional cattle-breeders, formerly common in India, are now abandoning grazing in consequence of the growth of cultivation, and cattle-breeding is now regarded as an accident of husbandry rather than as an essential part of it. On the other hand, a constant supply of large numbers of improved bulls will be required to counteract the tendency to deterioration which is bound to occur in the conditions in which the ordinary stock of the ryot are bred and maintained. Elimination of bulls by compulsory castration is necessary in order to improve the quality, and the Veterinary Department has recently begun to perform this important function by methods unobjectionable to the religious susceptibilities of the people. For selective breeding and cross-breeding, animals need to be enclosed. The cattle in Gujarat are superior and present a contrast to the half-sized and quarter-sized animals common in the Deccan. This has been attributed to the prevalence of enclosures in Gujarat. Co-operative breeding societies have been started in some places but some authorities believe that this type of work requires individual attention and does not lend itself to treatment by the co-operative method. The Imperial and Provincial Departments of Agriculture are devoting much attention to the problem of cattle-breeding with a view to raising a more efficient live stock both as regards draught and milk. Breeding work is being conducted at the Imperial and Provincial cattle farms in order to bring about an improvement in the milk yield of cattle by better feeding and selective breeding, as also by crossing indigenous breeds with sires of European pedigree.[2] At Pusa, the milk yield of the pure Sahiwal herd has been very greatly increased by these methods, and the experiments that are being conducted are expected to end in the evolution of a well-defined Sahiwal-Ayrshire strain sufficiently hardy for Indian conditions. The apathy of the big landowners is a

[1] The Agricultural Commission, however, utter the warning that in view of the difficulty of the task of breeding in Indian conditions even for a single purpose, it should not be endangered by the quest for dual-purpose breeds (*Report*, par. 197).

[2] See *India in 1926-7*, pp. 134-5; and *Review of Agricultural Operations in India*, pp. 95-9, *India in 1928-9*, pp. 131-34.

stumbling-block to progress in this matter and attempts should be made to overcome it by high officials who are in a position to exert influence on them. Giving a more scientific and practical education to the sons of landowners ought also to go a long way towards breaking down the present indifference of the landlord class towards rural economics. It is similarly within the power of the Princes to give a push forward to the movement of agricultural reform and every legitimate means should be adopted to stimulate their interest in practical agriculture.

115. **The Veterinary Department.**—The direct and indirect losses due to disease among cattle are heavy. Loss of cattle by death is an important cause of rural indebtedness. The enfeeblement of the surviving cattle is perhaps an even more serious consideration. The uncertainty of animal life also compels the cultivator to keep reserves of cattle, which he is unable to feed properly, and thus he neglects their quality. It is also one of the reasons of the reluctance even of the larger landowners to engage in cattle-breeding operations.[1] The work of the Veterinary Department in reducing the incidence of disease and the appalling mortality among cattle must be briefly noticed. The number of cases treated at veterinary hospitals and dispensaries and by itinerant officers is steadily on the increase, showing a gradually improving appreciation by the public of the valuable work being done by the Department.[2] Not the least important work of the Veterinary Department is granting immunity against contagious diseases in infected areas by compulsory inoculations carried out with sera and vaccines, and here also the tendency on the part of the cultivator to resent such action taken by the Department is on the decline owing to a growing conviction of its utility. In Madras, prophylactic measures have been taken against rinderpest, the most serious cattle disease in India. In the same province, compulsory inoculation by the serum method has been legalized in villages notified by a District Magistrate. The disease being widespread, effective isolation would be impracticable and in view of Hindu sentiment, destruction of healthy cattle in contact with infected ones is out of the question. Measures must, therefore, be devised for protecting the individual animal instead of trying to stamp out the source of infection. Compulsory inoculation, however, is undesirable at present. The Agricultural Commission strongly recommend what is called the 'serum simultaneous' method in preference to the 'serum alone'

[1] *Agricultural Commission Report*, par. 236.

[2] See *the Review of Agricultural Operations in India* (1928-9), pp. 107-122.

method of inoculation against rinderpest. No charge should be made for preventive inoculation. The provision of veterinary aid in India is most inadequate and the Commission recommend the establishment in each district of a central veterinary hospital with a number of dispensaries serving the subdivisions of the district. The staff attached to these dispensaries should be increased and men sent out to tour in the districts. A substantial increase of veterinary officers of all grades is necessary. Veterinary research work should be concentrated at the Muktesar Institute.[1]

16. **Reserve capital.**[2]—As in other industries, so in agriculture, some provision for unforeseen expenditure as well as by way of sinking fund and insurance is necessary if agriculture is to be conducted, as it ought to be, on sound business principles. It is a common experience, especially in tracts of uncertain rainfall like the Bombay Deccan, that there is a regular cycle of good, bad and indifferent years. Lack of any provision for meeting the more or less inevitable calamities like famines intensifies the suffering and distress resulting from them. There is similarly an absence of any systematic arrangement for meeting the charges on unproductive mortgages or loans or in connexion with depreciation of field improvements and implements. As Keatinge points out, the sinking fund maintained for these various purposes need not be kept idle and in cash. It might be utilized for objects like cattle-breeding or planting of fuel trees, investments which could be liquidated whenever necessity should arise for so doing.

The principle of agricultural insurance has scarcely yet struck root in India. It is, however, a necessary precaution to insure stacks of fodder, farm buildings, crops, cattle, etc. Insurance is particularly needed in the case of fodder and cattle in view of heavy recurrent losses due respectively to rick-burning and serious cattle mortality. It may be noted here that a beginning has been recently made, especially in Burma, in the direction of cattle insurance on a co-operative basis. Failing a regular sinking fund and insurance, for a general resort to which by the Indian farmer we shall have to wait for a long time, the next best plan would be to encourage the cultivator to build a farm-house on his holding, 'so that he may be on the spot to protect his property, to have a reserve of fodder, to make his cattle secure against famine, to have an enclosed pasture in which he may segregate them when contagious diseases occur,

[1] *Agricultural Commission Report*, par. 237.
[2] See Keatinge, op. cit., pp. 141-5.

and to have an irrigation well to serve as an insurance against unemployment in the dry season.'[1]

Organization

17. **Importance of rural industries.**—Agriculture is as much in need of organization as any other business, but in India it is at present in a very bad way as regards both internal and external organization. Some of the serious shortcomings in internal organization, such as the absence of economic holdings, permanent improvements, etc., have already been discussed. The particular defect which we now propose to single out for special treatment relates to the absence of subsidiary industries to enable the farmer to distribute his labour more evenly throughout the year than is the case at present, and thus improve his economic position. The absence of such industries constitutes a source of great weakness to the smallholder in India who at present attempts the impossible feat of maintaining himself on his little holding without any supplementary sources of income to speak of.

There is an appalling waste of rural labour on account of the seasonal character of agricultural operations. Except in irrigated tracts, where it is possible for the cultivator 'to sow something every month and to reap something every month and be always watering and weeding', the average farmer does not get employment on his farm all the year round. The duration of this enforced unemployment has been variously estimated at from 150 days to 270 days in the year. Mr. E. H. H. Edye, Census Officer for the United Provinces, writes in the *Census Report* of 1921: 'The bulk of the population is agricultural, and agriculture here means ordinarily the growing, harvesting and disposal of two crops in the year, and not the mixed farming familiar in England. Agriculture of this kind involves very hard work for certain short periods—generally two sowings, two harvests, an occasional weeding in the rains, and three waterings in the cold weather—and almost complete inactivity for the rest of the year. In precarious tracts, inactivity may be unavoidable for a whole season, or even for a whole year. These periods of inactivity are, in the great majority of cases, spent in idleness.' According to Dr. Slater, taking the land of south India all round, there is agricultural work for the cultivator only for five-twelfths of his possible working time. Mr. J. C. Jack in his *Economic Life of a Bengal District* says, 'The time-table of the cultivator . . . when his land is unfit for jute, shows three months' hard work and nine months' idleness; if he grows jute as well as rice, he will have an

[1] Keatinge, op. cit., p. 145.

additional six weeks' work in July and August.' According to Keatinge, there are only 180 to 190 working days in the year in the Bombay Deccan, while according to Calvert, the work done by the average cultivator in the Punjab does not represent more than about 150 days' full labour. The Royal Commission on Agriculture point out that while the amount of spare time varies very greatly according to local agricultural conditions, it may be assumed as a broad generalization that by far the greater number of cultivators have at least two to four months of absolute leisure in the year (*Report*, par. 488). The U. P. Banking Enquiry Committee estimate that for the province as a whole the peasant is occupied for not more than 200 days (*Report*, par. 361).

In the absence of industries ancillary to agriculture, the Indian farmer looks upon the slack season as the time for recreation, marriage and litigation. Occasionally, he may accept temporary employment in a town factory or on Government public works, or migrate to rural areas to sell his labour, or ply his cart for hire. In the case of the last alternative he has nowadays to reckon with the increasing competition of the motor truck. None of these usual occupations are altogether satisfactory from the agriculturist's point of view. As Mr. Darling points out: 'The only way in which a small farmer can keep himself out of debt is by being frugal and industrious and by having a second string to his bow.' This is the experience of the smallholder all over the world. In Japan, the rearing of silkworms is an important supplementary rural industry. France, Germany and Italy all have their own rural industries. Moreover, agriculture in the west is of a mixed and varied character and gives employment to the farmer without any interruption. Dairy-farming, pig-keeping and poultry-farming are the chief rural spare-time occupations. The problem is how to supply the small farmer in India with some satisfactory spare-time occupations which can be undertaken by him or his family without detriment to the cultivation of his land, in order to add to the income from agriculture.[1]

18. **Dairy-keeping, etc.**—Dairy-keeping is one of the possible subsidiary industries in India and if it could be successfully established it would not only improve the economic position of the ryot but also solve the problem of an adequate and pure milk supply. The problem is especially acute in the urban areas where the milk is adulterated by the mixture of highly injurious substances like

[1] For an interesting survey of the existing and possible rural industries, subsidiary to agriculture, in the various provinces of India, the Reports of the Provincial Banking Enquiry Committees and the Report of the Central Banking Enquiry Committee (par. 299) may be consulted.

boric acid, formalin, etc., and is not only poor in quality but also very much dearer than in any other country in the world. Attempts to start dairies that have been made hitherto have failed almost without exception, firstly, owing to the poor milk-producing qualities of the indigenous cattle (which have deteriorated owing to the hard conditions of their life), want of protection by legislation and want of encouragement by Government. Having regard to the fact that milk and its products are the best media possible for carrying bacteria and germs of typhoid, diphtheria, etc., it is essential that production on honest and scientific lines should be made a financial success so as to ensure a safe and sure supply of milk to the public. Villages adjoining cities should be in a position to cater for the large demand that exists in urban areas for milk of reliable quality at reasonable prices. Even in villages which are distant from towns and cities, there is scope for milk products being manufactured in forms such as cream, ghee and butter, suitable for transport over large distances. Dairy-farming, however, if it is to be properly conducted, involves careful attention to the quality of the animals so that their milk-yielding capacity should be adequate. It is necessary by means of scientific breeding to produce good milkers and to breed out the disadvantageous characteristics produced by generations of starvation and of promiscuous mating.[1] As Mr. Keatinge points out, the subsidiary industry *par excellence* of the cultivator should be the breeding and rearing of livestock, which would provide an occupation and an income at all seasons and return to the soil the manure which is necessary to maintain its productivity. There are difficulties in the way, such as the crowding of the animals together with the men into the village houses, where proper attention to the cattle is impossible. Existing circumstances such as scattered holdings and congested villages need to be modified in order that animal husbandry on a commercial scale should be possible. Also various difficulties in connexion with adequate grazing facilities and fodder supply must be overcome.[2]

Apart from dairy-farming and cattle-breeding, the following rural industries may also be mentioned: poultry-keeping, fruit-growing, market-gardening, gur-making, hand hulling, sericulture, lac-culture, bee-keeping, tanning, mat-making, bamboo and cane-work, rope-making, pottery, knitting, making *bidis*, toy-making, woodwork, lace and embroidery work, etc.[3]

[1] See *Agricultural Commission Report*, Minutes of Evidence, vol. I, part i, pp. 338-41.

[2] G. Keatinge, *Progress of Agriculture in Western India*, pp. 126-7.

[3] See *Report of the Bombay Provincial Banking Enquiry Committee*, par. 174. Also ibid. (Bengal), par. 26.

It is obvious that not all of these industries can be introduced all over India. In order to ascertain the possibility of introducing any of them in the different areas, a series of intensive regional surveys would be necessary. The special conditions of each district and village would have to be carefully studied and industries selected accordingly. Poultry-farming, for example, would be possible only in those parts where there is no strong religious repugnance to its pursuit as an occupation. A similar consideration would rule out bee-keeping, for example, in Gujarat where Jainism has a strong hold on the minds of the people. Poultry-farming and market-gardening would again require ready markets near at hand and could be introduced with advantage only in rural areas near towns. Sericulture requires special altitudes and climatic conditions and has now to face the competition of the growing imports of artificial silk.

19. **Economics of khaddar.**—Hand-spinning requires a somewhat more detailed treatment, not so much because of its intrinsic importance as because of the controversy which has raged in recent years round the *charka* and its possibilities. The advocates of the *charka* maintain that hand-spinning is the only supplementary industry possible and suitable in present conditions for the large masses in rural areas, and that it affords the simplest and quickest means of utilizing existing idle man-power. Mr. M. K. Gandhi, the great preacher of the gospel of the *charka,* summarizes its advantages[1] as follows:—

(i) It is immediately practicable, because (*a*) it does not require any capital or costly implements to put it into operation; both the raw material and the implements for working it can be cheaply and locally obtained; (*b*) it does not require any higher degree of skill or intelligence than the ignorant and poverty-stricken masses of India possess; (*c*) it requires so little physical exertion that even little children and old men can practise it and so contribute their mite to the family fund; (*d*) it does not require the ground to be prepared for its introduction afresh as the spinning tradition is still alive among the people.

(ii) It is universal and permanent as, next to food, yarn alone can be sure of always commanding an unlimited and ready market at the very door-step of the worker, and thus it ensures a steady regular income to the impoverished agriculturist.

(iii) It is independent of monsoon conditions and so can be carried on even during famine times.

(iv) It is not opposed to the religious or social susceptibilities of the people.

[1] See R. B. Gregg, *Economics of Khaddar,* pp. 170-2.

(v) It provides a most perfect and ready means of fighting famine.

(vi) It carries work to the very cottage of the peasant and thus prevents the disintegration of the family under economic distress.

(vii) It alone can restore some of the benefits of the village communities of India now well-nigh ruined.

(viii) It is the backbone as much of the hand-weaver as of the agriculturist, as it alone can provide a permanent and stable basis for the hand-loom industry which at present is supporting from eight to ten million people [?] and supplies about one-third of the clothing requirements of India.

(ix) Its revival would give a fillip to a host of cognate and allied village occupations and thus rescue the villages from the state of decay into which they have fallen.

(x) It alone can insure the equitable distribution of wealth among the millions of inhabitants of India.

(xi) It alone effectively solves the problem of unemployment, not only the partial unemployment of the agriculturist, but of the educated youth aimlessly wandering in search of occupation. The very magnitude of the task requires the marshalling of all the intellectual forces of the country to guide and direct the movement.

C. Rajagopalachari, writing on the *charka* in his Memorandum submitted to the Royal Commission on Agriculture, says: 'Hand-spinning is the only occupation that can fill the spare hours of the rural population if we take into account the limited skill and knowledge of the people and the necessary conditions of any spare-time occupation, namely, that it should be simple, easily learnt, and capable of being taken up and put aside any time so that it may not interfere with the main occupation.' This conclusion, he says, is confirmed by actual experience in the khaddar revival work in the Tamil Nad in the Madras Presidency. People there, especially women, have taken kindly to the *charka,* and their supplementary earnings, small as they are, ranging from Rs. 15 to 25 per *charka* annually, are a useful addition to their incomes especially as, in not a few cases, the income from land itself is no more than about Rs. 50 per family per year. Similarly, Puntambekar and Varadachari, in their excellent essay on hand-spinning and weaving, maintain that the *charka* has a great future before it and is capable of effectively supplementing the existing mill production so as to provide clothing for the whole population on an adequate scale, if only a suitable organization on decentralized lines is called into existence for this purpose. There

are, however, two main difficulties admitted even by fervent advocates of khaddar like Rajagopalachari, namely, (i) the taste that has been created for fine fabrics, and (ii) the greater cost of hand-spun cloth as compared with that of mill products, especially those imported from abroad. He holds that the second is the greater difficulty and suggests that a State bounty should be given so as to help production and make possible reduction of prices, and maintains that this will be necessary only for some time pending an increase in the general prosperity and purchasing power of the poorest classes through the recurring annual savings. He also recommends other methods of State help, such as loans of capital and facilities for production and distribution, reduced freights and preferential treatment in octroi and other taxes. We cannot agree, however, that 'the increase in the purchasing power of the poorest classes', even assuming it can come so easily, will induce them to buy khaddar in preference to the cheaper mill-made cloth. Unless khaddar sells as cheap or cheaper than mill-made cloth, a permanent system of artificial props in the shape of bounties will have to be maintained at the expense of the general taxpayer. In his preliminary report, the special officer appointed by the Madras Government to carry out a survey of cottage industries, emphasizing the limitations of the khaddar movement in the Presidency, arrives at the conclusion that the annual savings are not adequate enough to hold out any large inducement to hand-spinning. These difficulties are real, and apart from the question of cost, it is not easy to change people's psychology and preference for 'cooler and more attractive substitutes for the coarse khaddar which lie within the reach of all but the very poorest'. However, so long as the farmer is not and cannot be supplied with any other more remunerative supplementary industry, hand-spinning offers him some chance of balancing his budget at the end of the year. The case for the *charka* is merely this, that spinning on the *charka* is better than doing nothing whatever. But a more remunerative subsidiary industry is required to bring substantial economic relief to the cultivator.

20. **Some other rural industries.**—Another way to tackle rural unemployment is to promote the establishment, in rural areas, of industries connected with the preparation of agricultural produce for consumption and export, such as cotton-ginning, decortication of groundnut, rice-milling and husking, manufacture of refined sugar, oil-pressing, manufacture of bone manure, etc. These industries should, as far as possible, be organized on co-operative lines. They should not be concentrated in towns but should provide widespread rural employment. The supply of cheap electric power

would be a great facility for the development of such industries connected with agriculture. The Punjab and Bombay offer a promising field for the establishment of hydro-electric works for the distribution of cheap power in rural areas. A suitable system of technical education is a *sine qua non* of success. State aid to these industries will also be necessary, at least in the beginning. The Agricultural Commission favour the local manufacture of agricultural implements by private firms helped by the engineering sections of the Agricultural Departments. This will also reduce the present heavy cost of transport and bring the local price within the reach of the agriculturist. The exploitation of bamboo as a material for paper manufacture might give employment to the rural population living on the outskirts of forests. Preservation of fruit by drying, canning and making into jams seems to hold out much prospect of employment to the agricultural community or of profit to the promoters. The Commission, however, are on the whole sceptical about the possibilities of improving the conditions of the rural population by the establishment of rural industries and look for the chief solution of the problems of the cultivator in the intensification or diversification of his agriculture.[1]

In Madras the survey of cottage industries, undertaken with a view to their revival and establishment on an economic basis as subsidiary occupations for agriculturists in the non-agricultural season, was completed in four districts in 1927-8. Similar regional surveys by other Provincial Governments are essential for clearing the ground for the adoption of a systematic policy. It is the considered view of the Central Banking Enquiry Committee that by the introduction of new and the expansion of the existing industries much can be done to provide the cultivator with a suitable subsidiary occupation for his spare time. They urge that provincial Governments should devote their earnest attention to the development of these industries.[2]

21. **Marketing: co-operative sale.**[3]—So long as the Indian farmer was practising subsistence husbandry and enjoying the protection of the old village organization, perhaps no further and special organization was necessary in rural areas, but to-day the

[1] *Agricultural Commission Report*, pars. 491-3, 500.

[2] *Report of the Central Banking Enquiry Committee*, pars. 301-2. For further particulars regarding State aid to rural industries, see vol. II, chapter iii.

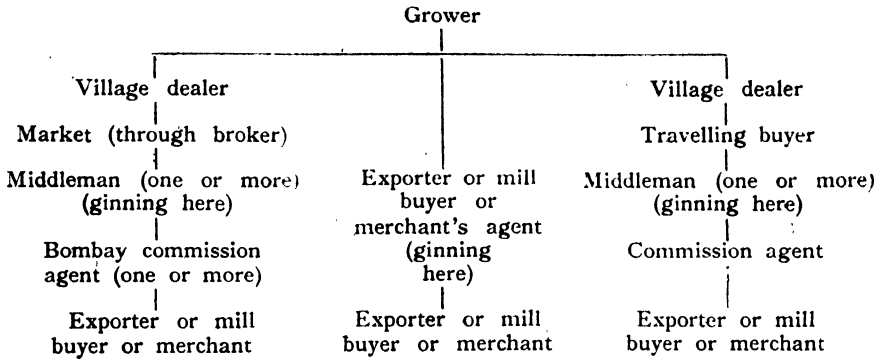
[3] For a comprehensive treatment of the problem of agricultural marketing consult 'Marketing of Agricultural Produce' by S. G. Beri. *Co-operation in India*, (edited by H. L. Kajl), pp. 340-365.

conditions are altogether different. While the commercialization of agriculture and the establishment of wide and competitive markets has made a stronger organization necessary, even the old archaic organization has been so weakened that it has ceased to be serviceable and the ryot is left without any guidance or protection to face an altogether novel situation. As the Agricultural Commission remark: 'His interests have in the main been left to the free play of economic forces and they have suffered in the process. For he is an infinitely small unit as compared with distributors and consumers of his produce, who, in their respective fields, become every year more highly organized and more strongly consolidated.'[1]

It is a common experience everywhere that the producer of raw materials generally fails to get his fair share of the good things of the world, and this is particularly the case at the present time in India where farming is carried on by small units unassisted by any special organization for their protection. The Indian cultivator is normally dependent on the money-lender to whom his crops are often mortgaged in advance. Besides the money-lender, there are a number of professional dealers and middlemen who attach themselves at every point and create a comfortable corner of nourishment for themselves at the expense of the cultivator. A further difficulty arises owing to an inadequate provision of roads, bridges and feeder railways to enable the agriculturist to deal directly with the consumers or wholesale dealers. Other handicaps of the cultivator are: low standard of literacy, absence of properly regulated markets and of combinations among farmers, chaotic condition of weights and measures and inadequate storage facilities. In these circumstances, it is not surprising that the cultivator does not get a fair price for his produce. Owing to his chronic shortage of capital and the need to satisfy the demands of the sahukar and of Government land revenue, he is compelled to sell his product at a disadvantage just when everybody is selling and the market is glutted. There is a long chain of middlemen, especially in the case of staple exports. Large firms often enter into forward contracts with the cultivator, to whom advances of money are given in anticipation of the delivery of produce. As a typical example of the multiplicity of middlemen who intervene between the cultivator and the consumer, the following diagram may be reproduced from the Memorandum submitted by the Indian Central Cotton Committee to the Royal Agricultural Commission.[2]

[1] *Agricultural Commission Report,* par. 320.

[2] Ibid., Minutes of Evidence, vol. II, part ii, p. 21.



As the Memorandum goes on to remark, the possible variations are obviously extremely numerous and the number of intervening middlemen may be very high. But even if we put aside extreme cases, there are usually too many intermediaries between the agriculturist and the consumer, such as the agriculturist's local agent, the mofussil purchaser's agent, mofussil purchaser and retail purchaser. And as V. L. Mehta points out in his Memorandum, it would be possible to eliminate these intermediaries by the adoption of the co-operative method. A co-operative sale society, for example, may dispense with the local agent and the mofussil purchaser's agent and make possible direct dealings with the mofussil purchaser. Not only this, but if there are efficient consumers' societies at the centre, all the intermediaries may be eliminated, to the very great advantage of both producer and consumer.[1] Co-operation offers the only satisfactory solution for enabling the agriculturist to realize the full market price for his produce. The agriculturist sometimes deals directly with the consumer, but as each cultivator acts for himself, a disproportionate amount of time and energy is necessarily involved in taking the produce over considerable distances and disposing of it in small quantities.

It is only recently that the realization has dawned upon the Agricultural and the Co-operative Departments that rural marketing is the crux of the whole question of rural prosperity and betterment and the movement for co-operative marketing has already made some headway in India. Burma led the way by inaugurating joint paddy sale societies. But the most promising development has been in the sale of cotton in provinces like Bombay. Co-operative cotton sale societies have been started in Bombay, the Central Provinces and the Punjab. The movement has so far achieved the most considerable success in the Bombay Presidency, where there

[1] See ibid., vol. II, part ii, p. 110.

are four principal areas in which cotton sale societies are situated: (i) Dharwar and Belgaum; (ii) Bijapur; (iii) Surat, Broach and Kaira and (iv) Khandesh, those in the first and third areas being the most important. In 1929-30, there were in all 25 cotton sale societies whose transactions were valued at about 45 lakhs of rupees.[1] Several different types of organization are being given a trial at present: (i) societies which pool their members' produce, arrange for ginning and sell ginned (and baled) cotton; (ii) societies which organize periodical auction sales of graded *kapas*—the sales being on individual account; (iii) co-operative commission shops which provide storage so that the grower is not obliged to sell on an unfavourable day—such societies are being tried in the Punjab;[2] and (iv) co-operative ginning and sale of members' cotton by seed unions. These unions are mainly organized for the production of pure seed and can scarcely be regarded as touching the real question of cotton marketing. The first type is the only one which makes a serious attempt to dispense with the small middleman altogether and has attained some measure of success in the Surat District, while the second type is in operation mainly in the Dharwar District with Gadag and Hubli as the prominent centres.

When all is said and done, however, the progress of co-operative marketing organization even in its most remarkable development, namely, in cotton, has not been very rapid, nor has it been unattended entirely by serious defects, such as inefficiency of management, absence of hold on the members (who cannot be legally forced to sell their cotton through the societies) and inadequate finance, especially hindering prompt advances of money to growers. All these defects must be removed, and the movement must be highly organized and skilfully worked in order that it may be able to fight against the powerful vested interests of *dalals, adtyas* and other middlemen.[3] The Central Banking Enquiry Committee recommend that Provincial Governments should not hesitate to make advances to co-operative banks at concessional rates of interest for the development of co-operative sale societies.[4]

[1] See *Annual Report on the Working of Co-operative Societies, Bombay* (1929-30), par. 58.

[2] The commission shops at present do *kachhi arhat* business, and so represent an attempt to deal co-operatively with marketing in its simplest form. See *Report of the Punjab Provincial Banking Enquiry Committee*, par. 89.

[3] See *Agricultural Commission Report*, Minutes of Evidence, vol. II, part ii, pp. 22-31.

[4] See *Report of the Central Banking Enquiry Committee*, par. 293.

The principle of co-operative sale has been extended to other agricultural products like *gur,* tobacco, chillies, paddy and potatoes, and there is a fairly efficient organization for the sale of *gur,* especially in the canal areas in the Bombay Presidency. Experiments are being made in Bengal in the co-operative sale of jute and the movement has great possibilities. There are about a dozen societies in working order and they have a common selling agency namely, the Calcutta Wholesale Society. Jute is bought outright from the ryots, either directly or through *beparis* paid and financed by the society concerned, and subsequently delivered, either to a Calcutta mill or to an export firm, to whom it has been sold through the Co-operative Wholesale Society.[1] The sale movement has struck root especially in the Bombay Karnatak where, besides the cotton sale societies, there is a sale society for chillies at Byadgi (Dharwar), for tobacco at Nipani (Belgaum), for areca-nut at Sirsi and Kumpta (Karwar) and for paddy at Alur (Dharwar).[2]

22. **Other improvements in marketing organization.**—Modern industry requires that consignments should be up to sample and uniform from year to year and unless these conditions are fulfilled, large-scale marketing for distant customers cannot be satisfactorily conducted to the fullest possible advantage of the primary producer. At present, various abuses exist such as damping and admixture, not only on the threshing floor but also in the godowns of brokers and dealers. Legislation has been felt to be necessary in order to prevent these malpractices. As we have already mentioned, at the instance of the Indian Central Cotton Committee, the Cotton Transport Act and the Cotton Ginning and Pressing Factories Act were passed in 1923 and 1925 respectively. Under the former Act (which now applies to the most important staple cotton areas of Bombay and Madras Presidency and of the Baroda, Rajpipla and Indore States) the Provincial Government is enabled to notify definite areas of cotton for protection and to prevent the importation of cotton from outside these areas except under license. This is aimed against the practice of importing inferior cottons for purposes of adulteration which had resulted in ruining the reputation of several valuable varieties of staple cotton. Under the Cotton Ginning and Pressing Factories Act which, as already said, is a corollary of the former Act, provision has been made for a certain

[1] See H. Sinha's paper on Co-operative Marketing, *Indian Journal of Economics* (January 1928), and the *Report of the Bengal Provincial Banking Enquiry Committee,* pars. 169, 182.

[2] For a detailed study of Agricultural Produce in the Karnatak see S. G. Beri's paper on 'Marketing of Agricultural Produce in the Bombay Karnatak', *Indian Journal of Economics,* Conference Number (January 1930).

amount of control of ginning and pressing factories and for the marking of all bales of cotton pressed with a press-mark and serial number so as to facilitate tracing them to their origin. A third piece of legislation, which also affects cotton, is the Bombay Cotton Markets Act (1927), which, while based on the Berar model (the Berar Cotton and Grain Markets Law of 1897) is in some respects in advance of it. It is of an enabling character and permits the notification of open cotton markets where trading takes place in the unbaled cotton brought by the grower under proper rules and by-laws administered by a market committee, on which the cotton-growers are represented. Thus the grower can now hope to obtain a square deal owing to the operation of rules designed to protect him from unauthorized deductions, false weighings and unduly low quotations—practices made possible by the ignorance and lack of bargaining power of the cultivator. Another advantage is that through the agency of such an organization the cultivator should gain that touch with substantial buyers which selling in the open markets promotes. The plan of such regulated markets may be imitated with profit by other provinces.

It is natural that attention should have been first directed towards the development of an efficient marketing organization in the case of cotton, the most important commercial crop. It is, however, desirable that the principle should be extended to other crops also. A serious drawback in the existing marketing organization is the absence of information in regard to marketing conditions, such as collection, storage and transport of produce, and manipulation, together with a detailed analysis of the price structure at every stage. This is essential in evolving a satisfactory policy for securing improvement in marketing. The Indian Central Cotton Committee have recently (1925-8) made some investigations into the finance and marketing of cultivators' cotton and their reports contain much valuable information.[1] The Agricultural Commission strongly emphasize the need for undertaking marketing surveys and for the training of the necessary personnel. They recommend the appointment of an expert marketing officer under the Agricultural Department in each province.[2] The various Provincial Banking Enquiry Committees have recently (1929-30) devoted a great deal of attention to the marketing conditions in various provinces (including some Indian States like Hyderabad), and their reports throw a good deal

[1] See *General Report* (also separate *Reports*) *on Eight Investigations into the Finance and Marketing of Cultivators' Cotton* (Indian Central Cotton Committee).

[2] *Agricultural Commission Report*, pars. 347-8.

of light on the various marketing problems in different parts of India and show how marketing conditions vary greatly from province to province and in respect of different products in the same province. The Central Banking Enquiry Committee recommend that proposals for the establishment of Provincial Marketing Boards should be examined by Provincial Governments in connexion with the creation of regulated markets by provincial legislation. They will have many important duties to perform: promoting schemes for building of godowns and warehouses, co-operative marketing, helping in the marketing of products of cottage industries, surveying the conditions which govern the marketing of the various products in their passage from the ryot to the final market. The marketing officer will be closely associated with these Boards. Advice and assistance in order to ensure co-ordination of the activities of the provincial marketing Boards, particularly in the agricultural produce which is intended for export abroad, should be given by the Imperial Council of Agricultural Research. The Committee also recommends the establishment of Chambers of Agriculture on a provincial or regional basis as in Germany and many other countries. They would serve as a *forum* in which agricultural opinion on problems relating to agricultural finance, production and marketing, could be focussed and crystallized into well thought out programmes for the advancement of the industry.[1]

Another improvement in marketing organization relates to the provision of suitable warehousing facilities and of the issue of warehouse certificates to the growers, who should be enabled to obtain advances from co-operative and other banks against the deposit of such certificates. This should make it possible for the grower to hold his produce against a favourable turn of prices. In this connexion we would invite attention to the American system of licensed warehouses and the Egyptian scheme of loans on the security of cotton to assist the small producer.[2] The reports of the various Provincial Banking Enquiry Committees throw much light on the question of the applicability of these two schemes to Indian conditions. There is no unanimity among them as regards legislation for licensing and otherwise controlling warehouses. For example, the Punjab Committee opine that such warehouses are at present premature, but may be needed in time.[3] The Bombay

[1] See *Report of the Central Banking Enquiry Committee,* pars. 284-6, 289.

[2] See the Note on the Egyptian scheme of loans on the security of cotton to assist the small producer, which was considered by the Indian Central Cotton Committee, in July 1929.

[3] *Report of the Punjab Provincial Banking Enquiry Committee,* par. 92.

Committee on the other hand recommend that licensed warehouses should be introduced in a few important centres to begin with.[1] The Central Banking Enquiry Committee make several useful recommendations in this connexion. They suggest that the question of providing warehouses by private agencies and licensing them, and the provision of capital for their construction, should be taken up by Provincial Governments, their efforts being co-ordinated by the Imperial Council of Agricultural Research. The problem of starting railway warehouses should be undertaken by the Railway Board and the railways should be asked to start experiments at selected centres. Provincial Governments should offer long-term loans at concessional rates of interest to co-operative societies to build godowns in centres which provide good markets.[2] As regards the Egyptian Cotton Scheme it is generally considered that it is premature to introduce it in India, as its utility even in Egypt is doubtful and as it is not desirable to encourage the small cultivator under the present conditions to hold up produce for a long period in the hope of a rise.[3]

Another much-needed reform is the standardization of weights and measures. This has been strongly emphasized by the Agricultural Commission, the various Provincial Banking Enquiry Committees and the Central Banking Enquiry Committee. In this connexion attention may be invited to the Central Provinces Weights and Measures of Capacities Act (1928) which lays down the units of weights and measures and empowers the Government to secure standardization by notifying areas for the purposes of the Act. The Central Provinces Banking Enquiry Committee, while approving of this measure, express the hope that it might be possible for the Government to equip all village authorities with standard weights and measures, imposing, if necessary, a small cess for the purpose.[4]

Something may be said here regarding the grain elevator system. An elevator is essentially a grading and storing appliance and it has been described as a 'hospital for drying grain if it is wet, cleaning grain if it contains foreign matter, clipping grain if it is sprouted, scouring grain if it is musty, and conditioning grain so as to improve its appearance and keeping qualities', in other words, rendering

[1] *Report of the Bombay Provincial Banking Enquiry Committee*, par. 151.

[2] See *Report of the Central Banking Enquiry Committee*, pars. 279-282.

[3] See *Report of the Punjab Banking Enquiry Committee*, par. 93 and the *Central Provinces and Berar Banking Enquiry Committee*, par. 1085.

[4] *Report of the Central Provinces and Berar Provincial Banking Enquiry Committee*, par. 1060. The Bombay Legislative Council has recently (October 1932), referred a bill on this subject to a Select Committee.

grain thoroughly marketable from the point of view especially of international trade and of maximizing the profits of the cultivator. It leads to economies in working owing to the introduction of transport in bulk, the quicker turn round of wagons, and possibly a more even distribution of traffic throughout the year. There is at present only one elevator at Lyallpore in the Punjab. The question of elevators for the proper handling of Indian grain has recently been taken up by Government, especially in view of railway congestion experienced latterly in the grain season.

The Agricultural Commission do not favour the establishment of the elevator system as a practical measure so far as the export trade is concerned, especially in view of the falling-off in the export of wheat—the principal grain affected—from Karachi in the post-War period. The expenditure involved is too large. Moreover, the demand for Indian wheat is most active in June and July, as it then fills the gap between supplies from other sources. The elevator system would not therefore tend to steady export throughout the year. Regarding internal trade, the Commission point out that the agricultural and marketing aspects of the problems have not been sufficiently examined. The illiteracy of the cultivators, their small and scattered contributions, the large number of grades required, the difficulties in regard to the control and training of the subordinate staff are serious obstacles. It may be that when the Sukkur Barrage and the various irrigation schemes in the Punjab are completed the elevator system may come within the range of practical politics.[1]

[1] *Agricultural Commission Report*, par. 344.

CHAPTER IX

RURAL INDEBTEDNESS

1. **Rural indebtedness a serious problem.**—Owing to her fertile soil, abundance of labour and considerable inherited agricultural skill, India seems to be marked out by nature as a prosperous agricultural country. And yet Indian agriculture is in a very backward condition and the lot of the average cultivator in India is not far removed from utter destitution. The existence of crushing debt is universally acknowledged to be one of the main cause of this state of affairs. As H. Wolff puts it: 'The country is in the grip of the mahajan. It is the bonds of debt that shackle agriculture.'[1] The presence of a huge volume of indebtedness, which is for the most part unproductive, inhibits improvement in every direction and constitutes one of the most serious problems of agricultural economy in India.

2. **Extent of indebtedness: earlier inquiries.**—In 1875 the Deccan Riots Commission, analysing the situation in twelve villages in the Ahmednagar district (Bombay), came to the conclusion that one-third of the occupants of the Government land were embarrassed with debts, that these debts averaged about eighteen times the assessment, that two-thirds of the debt was secured by mortgage of land and that the average debt per occupant amounted to Rs. 371.

The Famine Commission of 1880 inferred from evidence collected from all parts of India that one-third of the landholding classes were deeply and inextricably in debt and that at least an equal proportion, although in debt, were not so beyond the power of recovering themselves. In 1895, Sir Frederick Nicholson estimated the total rural debt of Madras at Rs. 45 crores.

The Famine Commission of 1901 came to the conclusion that one-fourth of the Bombay cultivators had lost possession of their lands, less than one-fifth of them were free from debt and the remainder were indebted to a greater or less extent.

Sir Edward Maclagan calculated the total agricultural debt of British India to be about Rs. 300 crores in 1911 on the basis of Nicholson's estimate for Madras. M. L. Darling, preferring the Punjab figure of to-day as a more reliable basis than the Madras figure of over thirty years ago, arrives at the figure of Rs. 600 crores for British India. 'The Punjab figure (90 crores) is nineteen

[1] H. Wolff, *Co-operation in India*, p. 3.

times the land revenue of the province. Applying this multiple to the land revenue (35·45 crores) of British India (including Burma) in 1923-4, we get a debt of Rs. 674 crores. There is, however, reason to believe that the Punjab is more highly indebted than most parts of rural India. Various things suggest this: for instance . . . the number of moneylenders, which in proportion to population is three times as great in the Punjab as in the rest of British India, and the special legislation that has had to be passed to protect the cultivator against the moneylender. Instead, therefore, of taking a multiple of 19, it will be safer to take one of 17. This gives a total of 603 crores. The amount is probably higher, as wherever there is a permanent settlement, land revenue is on a much lower scale than elsewhere; nor does the land revenue figure taken for British India include land revenue enjoyed by assignees, though it does in the case of the Punjab. Further, if we apply the Punjab figure in terms of population, we get a total of 1,080 crores, for the rural population of the Punjab is only one-twelfth of that of British India. Very tentatively, therefore, we may say that the total rural debt of British India with its population of 247 millions, is not less than 600 crores.'[1]

The inquiries referred to above were no doubt sporadic and some of them not sufficiently wide in scope, although, taken together, they indicated clearly enough the seriousness of the embarrassment through debt in rural India. The recent investigations into this question on the part of the various Provincial Banking Enquiry Committees have resulted in comparatively more comprehensive estimates which have confirmed this general impression left on the mind by the earlier inquiries while adding a little more definiteness to it.[2]

3. **Estimates of agricultural indebtedness by Provincial Banking Enquiry Committees.**—We give below estimates of rural indebtedness culled from the reports of the various Provincial Banking Enquiry Committees published in the course of the year 1930.[3]

(i) *Bombay.*—The total agricultural debt of the whole Province including Sind is estimated at Rs. 81 crores. The debt works out

[1] Darling, op. cit. (1928 edition), p. 17; cf. 1932 edition, pp. 18-19.

[2] The Agricultural Commission suggest that periodical reports on money-lending should be prepared and issued by the Income-Tax Department so as to throw some light on the different aspects of rural debt (*Report,* par. 368).

[3] For particulars regarding the methods adopted in computing the agricultural debt in the various provinces, consult the reports of the respective Provincial Banking Enquiry Committees. These reports make it clear that the estimates do not pretend to be thoroughly accurate but are useful by way of giving a general notion of the total debt.

at fifteen times the total land assessment and forms about 53 per cent of the average value of the total agricultural produce of the Province. The average debt per family comes to Rs. 329. The percentage of families free from debt is 13 in Sind; 21 in North Gujerat; 23 in South Gujerat; and 29 in the Konkan (pars. 49-50, 54).

(ii) *Madras.*—The Madras Banking Enquiry Committee consider that at the maximum in the year, the total debt is in the neighbourhood of Rs. 150 crores and that the debt which continues from year to year is at present about Rs. 70 crores. The average debt for the Presidency works out at Rs. 19 per rupee of assessment (pars. 96, 98).

(iii) *Bengal.*—The total agricultural debt for the whole of Bengal is estimated at Rs. 100 crores. The average debt per agriculturist family is Rs. 160 (par. 90).

(iv) *United Provinces.*—The United Provinces Provincial Banking Enquiry Committee arrive at the figure of Rs. 124 crores (in round figures) for the total debt of the landlords, peasant proprietors and tenants in the whole Province (Appendix II).

(v) *Punjab.*—The total agricultural debt of the Punjab is estimated at Rs. 135 crores in 1929 as compared with Rs. 90 crores in 1921, thus showing an increase of 50 per cent upon the estimates of the latter year. The debt's multiple of land revenue was Rs. 27 in 1929 as compared to Rs. 19 in 1921. The debt per head of those supported by agriculture was Rs. 104 in 1929, as compared with 76 in 1921. The debt per cultivated acre rose from 31 in 1921 to 43 in 1929 (par. 22).

(vi) *Central Provinces and Berar.*—The total debt of about Rs. 36½ crores comes to about 49 per cent of the normal gross crop outturn. The interest charges amount to 2½ times the total land revenue demand, and to more than one-third of the normal balance from agricultural income. The total cultivator's debt represents Rs. 227 per cultivating family (pars. 644, 653-4).

(vii) *Bihar and Orissa.*—The total rural indebtedness for the whole province may be put with some confidence at Rs. 155 crores. Of this, it would be reasonable to put down Rs. 24 crores to the landlords, Rs. 2 crores to the other rural households excluding ordinary cultivators, and Rs. 129 crores to the ordinary cultivators (par. 90).

(viii) *Assam.*—The Assam Banking Enquiry Committee estimate that the total agricultural indebtedness of the plains districts would be somewhere over Rs. 22 crores. This debt is 21 times the annual land revenue. The average debt per family is Rs. 242. Fifteen per cent of the families are free from debt (par. 33).

(ix) *Burma.*—The Burma Banking Enquiry Committee consider that an estimate of Rs. 50 to 60 crores for the total indebtedness seems likely to be of the right order of magnitude (par. 103).

(x) *Central Areas.*—The total indebtedness in the areas centrally administered is estimated at Rs. 18 crores.

(xi) *Coorg.*—The indebtedness is placed between Rs. 35 and 55 lakhs.

From these estimates it would appear that the total agricultural indebtedness of the British Indian Provinces is in the neighbourhood of Rs. 900 crores, though these estimates have no pretensions to complete accuracy. The Punjab figures also show that rural debt has increased appreciably in recent years and may be regarded as symptomatic of what is happening throughout the country. The burden of indebtedness has really become much more crushing having regard to the fall in the prices of crops since 1921, more particularly since October 1929.[1]

The seriousness of the debt, however, does not lie in its volume nor in its rate of growth, which in themselves are not alarming considering the size of the country, nor are they unparalleled in other countries. What gives cause for uneasiness is that the greater part of the debt is unproductive. For example, according to Darling, less than five per cent of the debt in the Punjab is due to land improvement. One of the disadvantages of unproductive debt is that it tends to increase automatically. Productive debt, by fertilizing the soil, creates its own means of repayment, but unproductive debt is apt to be repaid with difficulty.[2]

4. **The causes of indebtedness.**[3]—If indebtedness is a cause of poverty, the reverse also is equally true. It is, therefore, to be expected that much of what is advanced in explanation of the indebtedness also explains the poverty of the rural masses in India. Bearing this in mind, we may now proceed to enumerate the causes

[1] *Report of the Central Banking Enquiry Committee,* par. 77.

[2] Cf. 'One peculiar feature of agricultural indebtedness is that it is in most cases a mark of distress, whereas in the case of other industries, borrowed finance is a normal feature. As the loans are mostly for unproductive purposes, the pressure of indebtedness falls very heavily on the raiyat. . . . A high debt does not necessarily imply substantial assets leading to increased productivity. Therein lies the tragedy of agricultural indebtedness. . . . If the debt had been, as it should be, only another phase of credit, the problem of indebtedness would have been very easy of solution' (*Report of the Bengal Provincial Banking Enquiry Committee,* par. 104).

[3] For particulars regarding the causes of indebtedness which operate in each of the several provinces, the reports (chapters on Agricultural Indebtedness) of the various Provincial Banking Enquiry Committees and par. 81 of the *Report of the Central Banking Enquiry Committee* may be consulted.

of rural indebtedness and in doing so we first meet old friends, such as the following:

(i) *Excessive pressure of the population on the land.*

(ii) *Excessive subdivision and fragmentation of the soil.*

(iii) The decline of the cottage industries and the loss of income to the ryot by the absence of a subsidiary occupation in the off season.[1]

(iv) *The ill-health of the ryot.*—At certain seasons, owing to the prevalence of diseases such as malaria, sickness puts the cultivator out of action when his labour is most needed, and generally lowers his efficiency to a very serious extent.

(v) *The insecurity of the harvests.*—This feature has justified the description of Indian agriculture as a gamble on the monsoon, which as Mr. Darling remarks, 'has all the proverbial caprice of the Eastern potentate.' It has been calculated that an agricultural cycle of five years gives one good year, one bad and three that are neither good nor bad. It is only in good years that the peasant can possibly keep himself out of debt.

(vi) *The loss of cattle due to famine and disease.*—Diseases like rinderpest are another obvious cause of the economic embarrassment of the cultivator, as evidenced by the large percentage of loans given by the co-operative societies for the purchase of cattle.

(vii) *Depreciation.*—Another cause of indebtedness is the failure to provide for depreciation of cattle and implements, so that when their usefulness comes to an end there is no fund to replace them without borrowing. There is thus a steady consumption of capital going on. This is largely due to a lack of appreciation of facts, but is also partly the consequence of a desire for a higher standard of living. It is difficult to put aside funds for depreciation of, say, cattle, when so many desirable things, whether luxuries or not, are lacking in the household. The difficulty is aggravated owing to the lack of banking facilities and tradition of saving.[2]

(viii) *The excessive love of litigation.*—This characteristic of the Indian ryot, though amenable to treatment and cure by better education, is at present undoubtedly an active factor tending to increase the ryot's financial embarrassment.

(ix) *The improvidence and extravagance of the ryot.*—It is possible to explain the improvidence and extravagance of the ryot by attributing them to the tyranny of social customs, his lack of education and the speculative character of his calling which endows

[1] See *Report of the Central Banking Enquiry Committee*, par. 81.

[2] See *Report of the Burma Provincial Banking Enquiry Committee*, par. 113.

him with the mentality of a gambler, but it is not possible to deny their existence and their effect in the direction of aggravating indebtedness. Although the Indian peasant normally lives a most frugal and abstemious life, he is undoubtedly apt to carry his expenditure on special occasions to extravagant limits. The Deccan Riots Commission (1875) do not, however, agree that extravagant expenditure on marriages is a primary cause of indebtedness. Let us quote their words: 'It would be idle to say that improvidence does not exist as a cause of indebtedness. It consists, however, rather in the short-sighted imprudence of an ignorant class ready to relieve present necessity by discounting future income on any terms, than in an extravagant expenditure or misapplication of income. . . . Undue prominence has been given to the expenditure on marriage and other festivals as a cause of the ryot's indebtedness. The expenditure on such occasions may undoubtedly be called extravagant when compared with the ryot's means, but the occasions occur seldom and probably in a course of years the total sum spent in this way by any ryot is not larger than a man in his position is justified in spending on social and domestic pleasures. The expenditure by itself rarely appears as a nucleus of his indebtedness. . . . The constantly recurring small items of debt for food and other necessaries, for seed, for bullocks, for the Government assessment, do more to swell the indebtedness of the ryot than an occasional marriage.' The Bengal Provincial Banking Enquiry Committee endorse this view (par. 95).

We do not fully concur with this opinion and are inclined to the usual view that expenditure on marriage and social and religious ceremonies is one of the most important causes of debt. There are numerous instances of heavy debts having been contracted on these occasions from which the borrower has never been able to extricate himself. Moreover, the standard of expenditure on such occasions in rural areas has latterly been distinctly on the increase.

(x) *Ancestral debt.*—The Deccan Riots Commission expressed the view that the chief cause of the existing indebtedness was ancestral debt, debt being inherited from father to son, generation after generation without any equitable restrictions. The crushing burden of ancestral debt is due to the ryot's ignorance of the legal position that the debts of a deceased person only pass to his heirs when these succeed to the deceased debtor's property and only to the extent of such property. It is also due to the force of tradition which makes the ryots regard hereditary debt as a debt of honour and the legal fiction of moral and pious obligations to discharge ancestral debt. The ryots need to be instructed with regard to their

rights and induced to use them. The enactment of a simple rural Insolvency Act suited to rural conditions should also be carefully considered. As the Agricultural Commission remark: 'No one desires to see a wholesale resort to insolvency and no one, we trust, desires to witness a continuation of a system under which innumerable people are born in debt, live in debt and die in debt, passing on their burden to those who follow' (*Report,* par. 367).[1] This recommendation has been endorsed by the Central Banking Enquiry Committee who suggest certain special provisions in the proposed Rural Insolvency Act (*Report,* par. 93).

(xi) *The modern change in the cultivator's economic position.*— With the establishment of the Pax Britannica and the development of a strong and stable rule added to a definite assessment of land, better communications, growth of towns and high prices, the value of land increased and the capacity to borrow on the strength of it. While this served to mitigate distress, it led to a rapid increase of mortgage debt Further, the brief spells of exceptional prosperity, such as that initiated during the cotton boom of the sixties due to the American Civil War, and again during and some time after the recent Great War, had on the whole a demoralizing effect on the ryot. Prosperity is as much a cause of debt as insecurity of harvest. 'With prosperity the necessity to borrow may be less, but the opportunity is greater and wants are as much dictated by the one as by the other.' Especially when the prosperity owes little to the efforts of the cultivator, its effects on the character of the illiterate and uneducated ryot are apt to be injurious, for it leads to the evils of drink, dissipation, gambling, bribery and extravagance, or reckless and disastrous investment in land. It leads to a rise in the standard of living—in itself a desirable result—but when it has been too sudden and is followed by periods of scarcity and depression, the standard cannot be immediately accommodated to the change in the circumstances and leads to a growth of indebtedness.[2]

[1] See also *Report of the Bombay Provincial Banking Enquiry Committee,* par. 56.

[2] For an excellent discussion of this topic see Darling, op. cit. (1932 edition), chap. xii. The Bombay Provincial Banking Enquiry Committee point out in their *Report* (par. 59) that the temporary inflation of credit with the corresponding rise in prices during and after the War led to speculative purchase of land at heavy prices and taking up of leases of land at high rentals. The high prices also led to an increase in the cost of cultivation and to a rise in the standard of living. With a slump in prices and contraction of credit, there has been no proper adjustment in all these respects. While expenditure has permanently increased, income has diminished and in consequence indebtedness has shown an appreciable rise.

(xii) *The moneylender and the system of usury.*[1]—Money-lending has always existed in India as in other countries, but in pre-British days there were two restraints on the moneylender, namely, the existence of a vigorous village community which made unconscionable bargains with the isolated cultivator by the moneylender difficult, if not impossible, and the apathy of the State towards recovery of loans, a function that used to be performed by the village panchayats which settled questions of arrears, etc. equitably, promptly and summarily. Under British rule these checks have been largely removed. The disintegration of the village community weakened the position of the cultivator, and the moneylenders and land-grabbers fully utilized their opportunity, their superior shrewdness and resources to exploit the cultivator. The establishment of civil courts to administer a new system of civil justice based upon the ideas of *laissez-faire* and contract, and an elaborate and complicated procedure turned the balance further against the ryot. Owing to excessive pressure of work, the judges of the civil courts followed the line of least resistance and favoured a rigid and literal application of the law without attempting to go behind the bond. Being also generally town-bred and, therefore, ignorant of rural conditions, they played easily into the hands of the astute *sahukar*. Sale of the mortgaged land for the satisfaction of debt under a civil decree became an ordinary expedient instead of the exceptional resort that it had been in the pre-British period.

The high rates and the system of compound interest led to the exploitation of the ryot who 'was as easily shorn of his gains as the sheep of its fleece' (Darling). In pre-British days, customs generally limited compound interest to fifty per cent for cash and a hundred per cent (*damduppat*) for grain. No such restriction was recognized under British rule and interest accumulated without limit and was allowed by the courts. Decrees were often obtained *ex parte* through the collusion of the sahukar with the corrupt and underpaid establishment of the court. Thus, with the decline of the village community, the establishment of civil courts and increase in the value of land as security, the uncontrolled supremacy of the moneylender began and the series of famines in the latter half of the last century put the cultivator entirely at his mercy. The facilities for the recovery of debt provided by the civil courts and other factors had given rise to an inferior class of moneylenders not susceptible to the code of honour of the older class of respectable

[1] For a comprehensive account of the various types of moneylenders who supply rural finance and their methods of business, see *Report of the Central Banking Enquiry Committee*, chapter vii.

sahukars; and generally speaking, the old customary human relations between the ryot and the moneylender were changed into legal relations of creditor and debtor with no other tie than the cash nexus between them.[1] There is little wonder, therefore, that land began to pass, on an alarming scale, from ryot to sahukar and, particularly in Bombay and the Punjab, the peasant proprietary tenure began to degenerate into a 'Marwari tenure', and the 'cultivator capitalist' began rapidly to evolve into a 'sahukar's serf'.

The expropriation of the cultivator by the moneylender generated agrarian discontent and hatred of the moneylender which resulted in murderous uprisings of the exasperated peasants such as the Sonthal rebellion (1855), the Deccan riots (1874), and the riots of Ajmer (1891).

From the above description of the moneylender, we must not allow ourselves to infer that he is an unnatural monster of cruelty and inhumanity. He shares the weaknesses as well as the virtues of ordinary human beings, though the condition of the peasantry amongst whom his lot is cast is such as to call his weaknesses more than his virtues into action. The risks he undertakes are many and great owing to the ignorance, improvidence and irregularity of the cultivators and, therefore, the high interest he charges is largely an insurance against them. Moreover the moneylender himself is suffering from shortness of capital, and his expenses of collection and management of loans given to innumerable small borrowers are much higher than the similar expenses of say, a joint-stock bank. The lack of education and the conservative habits of the people as well as the semi-monopolistic position of the moneylender account for the high rates of interest charged by him.[2]

In justification of the sahukar's high rates of interest it has further been urged that the unpopularity of his calling must be allowed for.[3] Moreover, there being no other opening for his capital, moneylending is the only use he can make of it. The need of the agriculturist for loans is imperative, and the moneylender is

[1] See *Deccan Riots Commission Report.*

[2] See *Report of the Central Banking Enquiry Committee,* par. 114.

[3] It is, however, not altogether true that any particular odium attaches to the calling of the sahukar in India: he is on the contrary respected, as his services to the village community are indispensable. When a sahukar happens to be unpopular, he generally deserves to be so. The only escape from the odium, so far as it exists, would come by the interposition between the sahukar and the borrowing ryot of corporate organizations such as co-operative credit societies, land banks, etc. From many points of view, the present system under which capital is provided 'in small sums by small capitalists to men of small commercial intelligence' needs to be radically altered.

the only person to satisfy it.[1] If, in these circumstances, he often drives hard bargains and abuses the great power he enjoys, this is only human nature. 'To censure him is to censure the imperfections of mankind. We should rather blame the system than the man it has moulded.'[2]

Until a better system of credit fully meeting rural needs is evolved, the moneylender cannot be dispensed with. While trying to curb the moneylender in every possible way whenever his dealings appear to take an undue advantage of the necessitous position of the cultivator, we must not be blind to the useful part he plays at present in the rural economy. The moneylender is the only oasis of thrift in a desert of improvidence and extravagance, and is the very foundation of the simple system of Indian rural economy and a fount of ever-ready credit on which the villager can draw for all his needs. He serves the village in a variety of ways other than as supplier of credit. He is, for example, usually also a grain dealer, and is in this capacity particularly useful in times of famine and drought, when he issues grain and helps the village to tide over difficult times. 'Down with the moneylender' would, therefore, be a silly battle-cry. Even under any other conceivable scheme of rural credit, such as the co-operative credit societies or land mortgage banks, it would be an immense advantage to make the moneylender an integral part of the new credit institutions and to induce him to make his knowledge and his capital available through these new organizations.

(xiii) *Land revenue policy and indebtedness.*—There are some who, like the late R. C. Dutt, regard the heaviness of the land tax together with the rigidity of its collection as one of the causes of rural indebtedness. They contend that there has been an increase in the amount of land revenue collected during the last fifty years or so in spite of many years of famine or a partial failure of crops and the diminishing yield of land in many parts of the country. The Famine Commission of 1901 seem to support this view when they say: 'In good years the cultivator has nothing to hope for except bare subsistence and in bad years he falls on public charity.' The Famine Commission of 1880, on the other hand, make the following observation in this connexion: 'The fact that landowners, who have no land revenue or only a light quit-rent to pay, are often also deeply embarrassed proves. . . . that the payment of the land revenue

[1] Co-operative credit is still far from wholly displacing the moneylender. In the Bombay Presidency, for example, only about seven per cent of the finance required by the agricultural population is provided through the co-operative machinery. (*Bombay Banking Enquiry Report*, par. 227.)

[2] Darling, op. cit. (1932 edition), p. 207.

is not the main cause of the debt. If a man spends all his income on himself and borrows to pay his rent or taxes, it can hardly be said that his indebtedness is due to the fact of his having rent and taxes to pay, when these charges bear so light a proportion to income as the land revenue does to the gross outturn of the land'.[1] The ryot often borrows for paying Government assessment. But land revenue cannot for this reason alone be called a cause of indebtedness any more than seed and food for which also the ryot may have to borrow.

It would, however, be quite fair to attribute the condition of indebtedness to land revenue, if and when it can be shown to have operated oppressively, either by reason of the heaviness of the levy or of lack of elasticity in its collection. That the land revenue system has sometimes erred in these directions is admitted even by those who are not prepared to concede that rural indebtedness is to any extent chargeable to the land tax. Talking of the Punjab, for example, M. L. Darling admits that, although with the advent of British rule the land revenue demand was lowered and converted from kind to cash, it was not at first lowered enough to suit the less elastic system of collection.[2] He goes on to argue, however, that though land-revenue is 'often an occasion of borrowing', it 'is not a primary cause of debt'. But this is a distinction without a difference. The distinction between original and aggravating cause does not appear to be scientific. What we want to know is whether an alleged cause is a real cause. A person may be already burdened, say, with ancestral debt and he may aggravate his indebtedness by borrowing for extravagant expenditure on a marriage ceremony, but this should not debar one from describing the expenditure on the marriage ceremony as a cause of indebtedness. All borrowing which is due to the perversity of the ryot himself, or the unjust exactions of the sahukar, or occasionally of Government themselves, whenever their land revenue policy is too harsh, must be regarded as a cause of indebtedness. Further, it is argued that the reduction of land revenue would not reduce debt because 'every blessing is neutralized by an increase of population'.[3] Now this may or may not be a good reason for reducing the burden of assessment, but it certainly does not afford a valid ground for holding that heavy assessment cannot be considered a cause of debt. The argument we are criticizing does not really deny that the land revenue may be a cause of indebtedness; it merely suggests that if it is removed, another cause, namely, increase of population, will supervene. Unrestricted breeding may neutralize the beneficial

[1] *Famine Commission Report* (1880), p. 132.
[2] See Darling, op. cit., p. 231.
[3] See Darling, op. cit., p. 232.

effect of the abolition of an oppressive system of taxation, as indeed it may neutralize the effect of the removal of any abuse whatsoever, but this does not prove that a heavy land tax is not a *vera causa* of indebtedness. There have been periods during which it has by universal acknowledgement been excessive, for example, in the Deccan so long as the Pringle Settlement was in force. Again, in working the system of suspensions and remissions, a proper understanding of the ryot's position has not always been displayed. Even at the present time, in spite of numerous amendments and improvements which the land revenue system as a whole has undergone, individual cases of unduly harsh treatment, for which there is no effective system of obtaining redress, can be shown to occur.

In so far as these defects have been operative in the past and still persist,[1] it is not unreasonable to include them amongst the causes of indebtedness. However, having regard to the fact that the land revenue amounts to perhaps one-seventeenth or less of the total rural indebtedness and further bearing in mind that not the whole of the levy can be considered as a removable cause of the indebtedness, only a minor place can be assigned to it amongst the causes of the evil we are diagnosing. It need scarcely be pointed out that this is not to say that the present land revenue system is wholly free from defects.[2]

5. **State policy regarding rural indebtedness.**[3]—We may now review the measures adopted by the Government to tackle this problem which was forced on public attention in the early seventies of the last century. The question was discussed from time to time by the Deccan Riots Commission and the Famine Commissions of 1880 and 1901 and formed the staple of the debates and dispatches on the Deccan Agriculturists' Relief Bill (1878), on the Takkavi Loans Act (1882-3), the Agricultural Bank Scheme (1884), Nicholson's Report (1897), the Punjab Land Alienation Bili (1899) and the Co-operative Credit Societies Bill (1903).

[1] The recent Bardoli Inquiry has given rise to the strong suspicion that the actual operation of the present land revenue system is more burdensome and inequitable than was imagined hitherto. Moreover, the very serious fall in the prices of agricultural commodities during the last few years has increased the real burden of land revenue making relief necessary in many areas.

[2] Mere growth of indebtedness cannot, however, be used as an argument to show that agriculture does not pay and that land revenue is oppressive. On the contrary, 'the existence of debt borrowed on the security of the land is itself evidence that the land is good security. The extent of the debt is an indication of the value of the security' (*Bardoli Report*, par. 119).

[3] See S. C. Ray, *Agricultural Indebtedness in India and its Remedies* (Calcutta University).

Sir Edward Maclagan in his Note on Agricultural Indebtedness in India, classifies the measures taken by Government under four heads as follows: (i) measures taken to encourage the avoidance of unnecessary debts; (ii) measures for the improvement of the civil law in connexion with agricultural debts, including measures to regulate money-lending; (iii) measures for restricting the alienation of land; and (iv) measures undertaken with the object of providing or maintaining credit or reducing debt. To these we may add (v) measures for debt conciliation and liquidation. These may be considered after (ii).

6. **Measures to avoid unnecessary debts.**—Under this heading we may mention efforts made to popularize primary education in rural areas to enable the ryots to take a more businesslike view of their indebtedness and to meet the moneylender on a more equal footing. Education, however, remains woefully deficient both as regards quantity and quality. All the other measures taken by Government to increase the resources of the agriculturist may logically appear under this heading, but a good many of them have already been discussed in previous chapters. The suspension and remissions of assessment in years of scarcity have also been granted as partial remedies. But the system needs to be more liberally administered in order to fulfil adequately the purpose for which it is meant. Village post-office savings-banks have been started to inculcate habits of saving and thrift among the people. But these facilities need to be far more widely extended than at present to produce an appreciable effect in promoting thrift and in gathering together the little savings of the ryot for fruitful employment.

7. **Measures for the improvements of the civil law.**—As we have already seen, the original policy of *laissez-faire* had to be abandoned by Government as it unduly disturbed the old balance between creditor and debtor,[1] and it was found necessary to 'take back many of the weapons inconsiderately placed in the moneylender's hand and shown to have been misused . . . and to substitute for the blind and ruthless operation of legal machinery, the intelligent dispensation of justice between man and man.' [2] In achieving this

[1] It may be readily granted that the changes which have come with the advent of British rule, such as better-defined rights of property, a more complete recognition of the force of contracts and a stricter enforcement of them through the civil courts, are marks of a transition from a less to a more advanced social organization. But so far as most of the cultivators were concerned, these changes were immediately disastrous to them as they were not sufficiently advanced either as regards education or economic condition to benefit by the changes.

[2] Sir T. Hope's speech in the Governor-General's Council on the Deccan Agriculturists' Relief Bill (1879).

object, however, it is of the utmost importance as well as difficulty to guard against the possibility of violent interference with the legitimate business of the rural banker, leading to a disastrous contraction of credit. The sahukar, far from being hindered, should be actually assisted by law in recovering his reasonable claims. The ryot, no doubt, should be protected from extortion and oppression but at the same time he should be constrained to pay his just debts to the full extent of his means. To protect the ryot several alterations were made in the Code of Civil Procedure in the matter of executing decrees against agriculturists. For example agricultural tools and implements, and cattle necessary for tillage, and the materials of the agriculturist's house were exempted from attachment or sale; the agriculturist debtor was also exempted from arrest for a decree of the court and was given the concession of repayment of his debts by instalments.

The Deccan Agriculturists' Relief Act of 1879 was passed on the recommendation of the Deccan Riots Commission of 1875 appointed to inquire into the riots in certain districts of the Deccan, a feature of which was a violent attack on the moneylenders by their oppressed debtors. The Act allowed the courts to go behind the contract and to modify it in favour of the agriculturist so as to reduce an oppressive rate of interest, to prevent sale of land unless specifically pledged and to restore the land to the cultivator even when there was a sale deed between the two parties. The Act made it obligatory on creditors to furnish accounts and grant receipts and required mortgages by agriculturists to be in writing. The period of limitation, which since 1859 had been three years only, was extended in the case of suits against agriculturists to twelve years, if the suit was based on registered deed, and to six years otherwise. Though the Act was well-intentioned it has, on the whole, been found ineffective and even positively injurious. It has increased litigation and disturbed the structure of normal credit by introducing extreme uncertainty into the transactions between ryots and sahukars; it has led to an abuse of the concessions by the cultivators and made the moneylender more guarded and exacting in his dealings with them, thus increasing the difficulty of borrowing. The definition of 'agriculturist' is also too wide, and it is often abused for the benefit of persons for whom it was not intended, and makes it possible for them to dodge the courts and defeat honest creditors. According to the Famine Commission of 1901, there was positively room for holding that transfer of property both by sale and mortgage had become more frequent since the Act was passed. A recent Bombay committee has, therefore, suggested radical changes in the Act so as to make it workable and truly

beneficial to the agriculturist.[1] Several witnesses before the Bombay Provincial Banking Enquiry Committee urged its total abolition, pointing out that the Usurious Loans Act of 1918 and the courts inherent power to grant relief from unconscionable bargains make the Act superfluous. That Committee, while suggesting that the Usurious Loans Act should be utilized more than is being done at present, hold the view that it cannot entirely replace the Deccan Agricultural Relief Act. They recommend therefore that the latter Act should be repealed and replaced by a new Act containing a few provisions to safeguard the interests of only small and genuine agriculturists. Investigations of past transactions should be rendered possible by requiring moneylenders to keep proper accounts. Provision should be made for allowing repayment by reasonable instalments and for restricting the time within which the validity of a sale can be challenged.[2]

As another instance of the alteration of the civil law, mention may be made of the Act of 1899, by which certain changes were made in the Contract Act, and the scope of the term 'undue influence' was extended so as to cover all cases in which unfair advantage was taken of his dominating position by the sahukar. Whenever the transaction was apparently unconscionable, the burden of proving absence of undue influence was thrown on the moneylender. The Usurious Loans Act, as consolidated and amended in 1918, aims at determining the legal and maximum amount of interest recoverable, reducing the rate of interest chargeable and fixing a maximum rate of interest. (The Act applies to all persons, whether agriculturists or non-agriculturists.) 'An important feature of the Act is that the court once seized of a case may, of its own motion, re-open old transactions and inquire into the equity of the terms. The Act was amended in 1926 to include cases in which either party to a mortgage seeks relief. Where the debt is unsecured, the debtor can draw the creditor into court and, therefore, into the sphere of this Act, by the simple expedient of refusing to renew his loan.'[3] The Agricultural Commission hold that the Act is practically a dead letter in all provinces and recommend an inquiry in every province into the causes of the failure to utilize it and the adoption of steps to ensure its application in future. This is one of the questions which the Provincial Banking Enquiry Committees were directed to investigate.

[1] See also *Agricultural Commission Report*, K. S. Gupte's Memorandum, Minutes of Evidence, vol. II.

[2] See *Report of the Bombay Provincial Banking Enquiry Committee*, pars. 239-40.

[3] *Agricultural Commission Report*, par. 365.

The views and recommendations of the various Committees on this subject are not unanimous.[1] Some of the Committees (for example, the United Provinces, Punjab, Assam and Madras Committees) do not agree with the view of the Agricultural Commission that the Act is practically a dead letter. The Madras and Assam Committees further observe that it acts as a check on the interest rates even without application. On the other hand, the Bombay and Bengal Committees subscribe to the view that the Act is seldom availed of. The Bombay Committee attribute its failure to its comparative novelty, to the widespread ignorance regarding its existence and to the fact that better relief can be obtained by the agriculturist under the Deccan Agriculturists' Relief Act. The Bengal Committee refer to the contention that the Act has failed owing to the failure of the debtor to plead the Act. The Burma Committee point to the root difficulty in determining when the rate of interest is excessive, and suggest that some definite guidance should be given to the Courts to help them decide this point. The Madras and Bengal Committees urge that there should not be the slightest doubt that a judge can and should apply the Act of his own motion at his own discretion. The Central Banking Enquiry Committee hold that the Act is capable of being worked to the advantage of the debtors in many provinces and should be retained and a special report on the working of the Act should be included in the Annual Reports on the Administration of Civil Justice. We fully endorse the conclusion of the Central Provinces Banking Enquiry Committee that a law like the Usurious Loans Act has its inevitable limitations. It can give relief in individual hard cases, but cannot operate to control the money market so as to produce a general reduction in the existing rates of interest.

8. **Legislation regarding licensing and control of moneylenders.**—In several countries measures have been taken to regulate the business of moneylending, because the power which moneylenders have over their borrower is so apt to be abused. This is especially the case with regard to unscrupulous moneylenders, particularly among petty moneylenders who have no status to maintain. The number of such persons and the degree of their sharp practice depend upon the degree of the backwardness of the community among whom their operations are conducted. The Royal Commission on Agriculture commend the principles under-

[1] See the *Reports* of the *Assam* (par. 169), *Bombay* (par. 241), *Bengal* (pars. 309, 312), *Burma* (pars. 694-7), *Central Provinces* (pars. 1632, 1660), *Madras* (pars. 364-5), *Punjab* (par. 177) and *the United Provinces* (par. 323), *Provincial*

lying the Punjab Regulation of Accounts Bill (passed into an Act in 1930) and the British Moneylenders' Act of 1927 to the consideration of Provincial Governments. The Punjab Act obliges all moneylenders to use regular account books and to furnish each debtor every six months with a legible statement of accounts signed by himself or his agent showing not only the amount outstanding but also all loan transactions entered into during the past six months. If no accounts are kept, the Court can in any suit disallow, either wholly or in part, the interest found due and also the costs of the suit. The English Act provides for the taking out of licenses by moneylenders, prohibition of compound interest, supply of information and copies of the relevant documents relating to the state of loan on demand by borrower. The Commission do not apprehend that such enactments will lead to any serious contraction of credit, for the co-operative movement is introducing a sound system of controlled credit, and also the capital now invested in moneylending must find a use. For many years to come there will still remain a wide field for honest business in supplying the legitimate needs of agricultural operations (*Agricultural Commission Report,* par. 366).[1]

The various Provincial Banking Enquiry Committees are not unanimous as regards the expediency of the licensing of moneylenders.[2] The Bombay Banking Enquiry Committee do not favour the licensing of moneylenders on the ground that it is not practicable. They argue that in this country we have to deal with an illiterate class of borrowers, who cannot afford to lose the goodwill of the creditors on whom they are dependent. Again, there is little use in passing legislation which on account of the strong position of the moneylender can be easily evaded. Moreover, the experience of the working of the Deccan Agriculturists' Relief Act shows that the more the restraints placed on the moneylender, the worse becomes the position of the borrower. It would also be difficult to make provision for the inclusion of a large class of people, who though not moneylenders themselves, lend their surplus money occasionally to others. The Committee hold that the present state of things can be considerably improved, if legislation were undertaken on the lines

[1] Mr. Darling is, however, less optimistic and holds that the ramifications of moneylending and difficulties in the way of enforcing a prescribed form of accounts militate against the success of such legislation. It is ahead of times and is likely to be behind them also because 'with the spread of co-operation and the rapid advance of modern facilities the moneylender, though not yet defeated, is doomed' (see op. cit., p. 216).

[2] For particulars regarding the proposed conditions of license and the privileges for licensed moneylenders, see the *Report of the Central Banking Enquiry Committee,* pars. 120-1.

of the Punjab Regulation of Accounts Act of 1930. It will secure the position of honest parties on both sides and will facilitate the work of the Courts in examining the history of the transactions and will greatly reduce the amount of false evidence produced in Court. They also suggest that provision should be made for the issue of a pass-book in a prescribed form to the debtor and for its regular maintenance. Although in the past the system has not proved a success, it will have an educative value and will have a beneficial effect on the cultivating classes. The Act may be restricted in its scope to persons who advance loans in the regular course of business.[1] The Punjab Banking Enquiry Committee, however, characterize the Punjab Regulation of Accounts Act as an experiment which should perhaps be watched before it is imitated. In their view the greatest difficulty will be the dispatch and delivery of the six-monthly statement of accounts by thousands of moneylenders to millions of cultivators. If this and other difficulties can be surmounted, the Act should help to make both the lender and borrower more businesslike. The Assam Committee take a similar view.[2] The United Provinces Committee are rather sceptical regarding the desirability of regulating and restricting the moneylender, having regard *inter alia* to the prevailing state of illiteracy and to the fact that the village moneylender himself requires education almost as much as the peasant (pars. 477-8). On the other hand, the Bengal Committee think that it is essential for the enforcement of any regulation against professional moneylenders that they should be licensed and their names and addresses should be registered. They do not think that there is any valid reason for any resentment by moneylenders. The principle of registration and license is applied to the members of one of the most respected professions, namely, that of the law. The Committee would restrict such regulation to professional moneylenders, thus excluding the casual moneylenders (par. 320). The Central Provinces Committee also advocate regulation of moneylenders by license with a view to eliminating the black sheep and to purifying the moneylending profession (pars. 1678-80). The Burma Committee desire to make a beginning on the above lines in the case of professional moneylenders in the Rangoon area (par. 704).

From the foregoing survey it will be seen that, while there are no two opinions regarding the need for protecting the borrower against the rapacious and dishonest type of moneylender, there is no

[1] See *Report of the Bombay Provincial Banking Enquiry Committee*, pars. 242-3, also the *Report of the Central Banking Enquiry Committee*, pars. 118-9.

[2] See *Reports of the Punjab* (par. 176) and *Assam* (par. 170) *Provincial Banking Enquiry Committees.*

agreement as to the methods of doing this. However, it seems necessary to make a cautious beginning on the lines of the action proposed by the Bombay Banking Enquiry Committee and the Central Banking Enquiry Committee. The latter, while not in favour of either a compulsory or voluntary system of licensing moneylenders, recommend that the enactment of the provisions of the Punjab Regulation of Accounts Act be considered by other provincial Governments. The enhancement of interest for default in payment should be illegal. A moneylender should not be allowed to charge the borrower for expenses incident to the granting of a loan to a borrower. No contract for the repayment of a loan should be enforceable unless it is in writing and signed by the borrower. The Committee do not favour the prohibition of compound interest as this would only lead to frequent and unnecessary renewals of loans on fresh bonds with interest added to the principal, might force the moneylender to have recourse to the Courts oftener than at present, thereby increasing his expenses and the interest charged to the borrower.[1] It is needless to add that the competition of other credit agencies like the Co-operative Credit Society and Land Mortgage Bank, will, in the long run, compel the moneylender to reduce his rates and mend his ways. It is not desirable, however, to leave things to themselves pending such a happy consummation.

9. **Debt conciliation and liquidation.**—As suggested by the Central Banking Enquiry Committee it is necessary to make a serious effort to find a remedy for the chronic indebtedness of the agriculturist, so far as it relates to unproductive debt. In their opinion the most effective remedy will be found in the pursuit by provincial Governments of a vigorous policy of debt conciliation on a voluntary basis. For this purpose special officers should be appointed in each province whose function would be by propaganda to pursuade the lender and the borrower to agree to a redemption of standing debt on the basis of a cash payment or equated payments spread over a number of years. The existing co-operative societies should be utilized as the agency for the payment to the lender by the borrower who should become a member of the co-operative society which, in turn, should supply him with his current needs in future. Government should have a regular programme of advances to co-operative societies for purposes of debt redemption where the lender wants a cash payment. If necessary, the whole arrangement should have the backing of a legislative enactment. In those cases where the lender will not agree to a voluntary settlement of the debt it will be necessary to take action to secure a

[1] See *Report of the Central Banking Enquiry Committee*, pars. 116 and 122.

compulsory settlement by means of a legislative enactment.[1] The question of redemption of ancestral debt by the enactment of a simple Rural Insolvency Act has already been considered above (See pp. 273-4).

10. **Restrictions on the transfer of land.**—Almost everywhere in India, 'proprietary' and 'tenant rights' greatly increased in value during the last forty or fifty years of the nineteenth century, causing an unprecedented expansion of the peasant's credit, which was for the most part misused. No precautions were taken to prevent an ignorant and unthrifty peasantry from borrowing recklessly on the strength of the improved security of land, which began to pass rapidly out of the hands of the cultivator. So far from desiring to prevent transfer of land, Government seemed at first actually to welcome it. It was thought that the facility of transfer would result in land coming into the possession of cultivators with sufficient resources to exploit it fully. The authors of the Joint Report in Bombay, for example, wished special measures to be adopted to facilitate transfers, more especially as the customs of the country were adverse to transfers. The realization, however, gradually dawned on Government that transfer of land to non-cultivating classes had reached a stage at which it was economically as well as politically dangerous and that it was therefore necessary to restrict free alienation. Those who favoured legal restriction on free transfers of land desired it primarily to prevent the passage of land into the hands of the non-cultivating classes, though they also welcomed the secondary effect of such restriction, namely, decrease of credit, as likely to diminish the rate at which debt was being contracted by the peasant class. Action was taken or contemplated in one form or another, the most outstanding case being that of the Punjab. Under the Punjab Land Alienation Act of 1901, non-agricultural classes are not allowed to buy land from a member of an agricultural tribe nor to take it in mortgage for more than twenty years. The success of the Act in preventing the expropriation of the peasant proprietor by the moneylender is undoubted. There is, however, a fly, or rather several flies, in the ointment. In the first place, the difficulty placed in the way of the educated townsman wishing to bring his capital, intelligence and enterprise to bear on the land is a handicap to agricultural progress. Such enlightened enterprise has been the principal cause of the progressive character of English agriculture. Even the agriculturist classes have suffered from the inevitable contraction of credit. Another serious and unexpected evil has been the emergence of the

[1] *Report of the Central Banking Enquiry Committee*, pars. 91-2.

agriculturist moneylender, and the growth of his influence. The restrictions of the Act do not apply to him and he takes advantage of his privileged position to expropriate his brother agriculturist in a manner as unscrupulous as that of the old moneylender. While, therefore, the Act has helped materially the retention of land in the hands of agriculturists, it is open to doubt whether it has appreciably diminished the evil of indebtedness.[1]

11. **The supply of money and credit.**[2]—The takkavi loans are a very ancient form of State help to the ryots in India, and the British Government passed several Takkavi Acts in 1871, 1876 and 1879 respectively. But no active help was rendered until after the passing of the Land Improvement Loans Act of 1883 and the Agriculturists' Loans Act of 1884 as recommended by the Famine Commission of 1880. Under the former Act, long-term loans for permanent improvements on land such as wells and embankments were to be granted, and under the latter, short-term loans for current agricultural needs, such as the purchase of seed, cattle, manure, implements, etc. These loans have been useful to agriculturists, especially at critical times, when they have helped to mitigate the prevalent rates of interest and have served in some measure to establish a connexion between the village and the wider money-market from which Government sometimes borrow for this purpose.

Takkavi loans, however, have never been popular. The Irrigation Commission of 1901-3 estimated the total amount so lent at six crores of rupees—"a mere drop in the ocean." The figures relating to loans under the two Acts furnished recently by the Provincial Banking Enquiry Committees illustrate the very insignificant part played by Government in the matter of supplying rural finance.[3] These loans are granted only for specified purposes so that the ryot, rather than imperil his credit with the moneylender from whom he can borrow for all purposes, prefers not to avail himself of the State loans unless absolutely forced to. It is impossible to make any

[1] See Darling, op. cit., pp. 183, 210, and the *Report of the Punjab Provincial Banking Enquiry Committee*, par. 175. A similar Land Alienation Act was passed for Bundelkhand in 1903. Restrictions on the alienation of land by aboriginal tribes exist in Central Provinces and Bombay.

[2] The sources from which rural financial supplies are now obtained may be conveniently mentioned here. They are: (1) Moneylenders (including sellers on credit), both professional and non-professional. (2) Indigenous Bankers. (3) Co-operative Organizations. (4) Government. (5) Commercial Banks, including the Imperial Bank of India, the Exchange Banks and the Joint-Stock Banks. (6) Loan Offices in Bengal. (7) Nidhis and Chit funds in Madras. See *Report of the Central Banking Enquiry Committee*, par. 104.

[3] See *Report of the Central Banking Enquiry Committee*, par. 236.

system of Government loans as elastic as that of the moneylender. The rigidity in the matter of collection is another disability which makes the takkavi unpopular. The endless delays in distribution, the exactions of petty official underlings and the general red-tape character of the revenue agency by which it is administered are further drawbacks. The system is also extraordinarily difficult to supervise and does not go to the root of the matter in that it fails to exercise any educative influence on the character of the ryot; some would even say that it tends to demoralize them. Lastly, Government's credit and resources being limited, funds cannot be made available to the extent required.[1] As a general means of financing agriculture the system is a failure, although in respect of specified famine tracts and backward areas it has a limited use.[2] Government seem to be waking up to the necessity of amending the administration of the takkavi. In illustration of this we may refer to the recent Government Resolution on the subject containing instructions to make the procedure less rigid. The Board of Agriculture recommended in 1917 that takkavi loans should be given more freely to enable the ryots to purchase such manures, improved seeds and implements as may be recommended by the Agricultural Departments.[3] In Bombay, under rules framed in 1922, Government have availed themselves of the co-operative agency in the distribution of these long-term loans for effecting permanent improvements. An annual allotment is placed at the disposal of the Bombay Provincial Co-operative Bank for the purpose. The whole system of takkavi loans has been recently (1929-30) passed under review by the various Provincial Banking Enquiry Committees and the Central Banking Enquiry Committee (*Report*, pars. 238-45), and several useful recommendations (for instance, the creation of a Government publicity educative agency) have been made.

Outside the scope of any Acts, Government have from time to time accommodated with loans certain well-known families, such as the Tagore family, to save them from ruin. Further, by the Encumbered Estates Acts and the Court of Wards Acts, Government have taken power to take special measures on behalf of the larger estates or the indebted properties of a definite area in order to

[1] See Wolff, op. cit., pp. 1-3.

[2] See *Agricultural Commission Report*, Minutes of Evidence, vol. III, Srinivasa Achariyar's evidence, also the *Report of the Central Banking Enquiry Committee*, par. 241.

[3] The Bengal Provincial Banking Enquiry Committee point to what they consider a fundamental defect in the Land Improvement Loans Act, and one which has rendered it infructuous. No loans can be granted under it by Government for the redemption of old debts and consolidation of holdings—the two essential pre-requisites for agricultural improvement (*Report*, par. 138).

rescue encumbered estates and protect from ruin estates that might otherwise have become insolvent.

All these measures have failed to solve the main problem of indebtedness, and the provision of a suitable and cheap system of credit for agriculturists still remains a desideratum. As Mr. Ewbank observes, 'no mere legislative fiat can control the working of economic law.'[1] Government realized this as early as 1884, when the Viceroy in a dispatch to the Secretary of State urged the necessity of a private bank to replace the village usurer and supply cheap capital to solvent ryots. Under the inspiration of Sir William Wedderburn and Justice Ranade, a committee of the capitalists of the Poona District was formed in 1883 with the object of establishing a bank to finance the agriculturists of the Purandar Taluka. Relying on the power of recovery through the revenue officers and a few other small concessions, such as priority granted to the loans of the bank, remission of stamp duty, etc., they raised a capital of ten lakhs and had intended to begin by redeeming all the outstanding debts of the ryots. Though the scheme was approved of both by the Government of India and the Bombay Government, it was negatived by Lord Kimberley, the then Secretary of State, on the grounds (i) that the bank would be virtually a Government institution, (ii) that the scheme was financially unsound, as, judging from the assessment of the Purandar Taluka, the ryots could not possibly pay the interest or the amount advanced within any reasonable period, and (iii) that the Takkavi Acts of 1883 and 1884, already referred to, along with the Deccan Agriculturists' Relief Act and better judicial arrangements and proper registration of titles to land, would go sufficiently far to meet the needs of the situation. He further pointed out that what the ryot wanted was a running account after the manner of the sahukar which the bank could not possibly allow.[2]

12. **Co-operative credit.**—The idea of using co-operation in India as a means of combating rural indebtedness and supplying credit was first suggested by Frederick Nicholson, a Madras civilian who had made a special study of agricultural and other land banks in Europe. Nicholson was entrusted by the Madras Government with the work of conducting an inquiry as to the feasibility of starting, in the Madras Presidency, a system of agricultural or other land banks and in his famous *Report* published in 1895-7 he pleaded powerfully for the introduction of co-operative credit societies in India. He asserted that in a country like India, no

[1] R. B. Ewbank, *A Manual of Co-operative Societies*, p. 2.

[2] See *Agricultural Commission Report*, pars. 356-7, for an account of the Agricultural Bank in Egypt.

scheme could have any effect unless it was based on an intimate acquaintance with the circumstances of the borrowers on the part of the lender, whether an individual or a society, and that, although the sahukar in the villages is usually acquainted with the circumstances of the borrower, he is an isolated unit unconnected with the general supply of credit in the country. He pointed out that the land banks in Europe had been of use only to the large cultivators. He disapproved of the idea of State banks as a cure for indebtedness, because the banks would have to be impossibly numerous to satisfy the chief test of credit, namely, proximity and security to the lender, and facility and safety to the borrower, and would demand an elaborate official establishment. Also the State could not command the requisite funds, and by excessive bureaucratic interference it would further encourage the disposition of the people to look to the State even in ordinary affairs of life. Government would, moreover, incur the odium of the bailiff in addition to that of the tax-collector. Nicholson concluded that co-operation offered the only satisfactory solution in a country like India for 'bringing to the peasant that continued ever-fluctuating credit which he needed'. He observed that conditions in Madras were not less favourable than those in Europe for co-operative credit banks, as there were already a number of successful indigenous societies known as *nidhis* comparable to the Friendly and Building Societies of Great Britain. He suggested that the starting of agricultural co-operative banks should be encouraged by Government by legislation and suitable indirect means, although personal devotion and zeal were necessary for success. He summed up his conclusions in the two words, 'Find Raiffeisen'. In 1899, the Madras Government reviewed his *Report* but shelved the whole question by declaring that it was unnecessary to take any action on it, as rural credit in their opinion was not an urgent problem.[1] In the meanwhile, Dupernex of the United Provinces' Civil Service had published an interesting book entitled *The People's Banks of India.* The idea of co-operation thus suggested and brought to public notice in this work and Nicholson's *Report* now began to bear fruit. In parts of the United Provinces, the Punjab and Bengal, some district officers established a few pioneer co-operative societies on their own initiative. These efforts were, however, scattered and un-coordinated and it was also realized that no real advance was possible without the help of special legislation, the Joint-stock Companies Act with its elaborate provisions being obviously unsuitable for the

[1] See Government of India's Memorandum accompanying the Co-operative Credit Societies Act of 1904.

co-operative rural banks.[1] The Famine Commission of 1901 gave a further stimulus to the idea of co-operation by strongly recommending the establishment of the Raiffeisen type of village banks. In the same year, Lord Curzon's Government appointed a strong Committee under Sir Edward Law after ascertaining the views of local Governments on Nicholson's Report. The Committee received the benefit of the advice of Henry Wolff, the greatest living English authority on co-operation. Their recommendations were followed by the introduction of a bill into the Imperial Legislative Council by Sir Denzil Ibbetson in 1903, and this passed as Act X of 1904 and was entitled the Co-operative Credit Societies Act, 1904.

But the subject of co-operation is sufficiently important to deserve a chapter to itself.

[1] See *Maclagan Committee Report*, par. 4.

CHAPTER X

THE CO-OPERATIVE MOVEMENT IN INDIA

1. **Meaning of Co-operation.**—The following quotations serve to bring out the salient characteristics of co-operation:—

'The theory of co-operation is very briefly that an isolated and powerless individual can, by association with others and by moral development and mutual support, obtain, in his own degree, the material advantages available to wealthy or powerful persons, and thereby develop himself to the fullest extent of his natural abilities. By the union of forces material advancement is secured, and by united action self-reliance is fostered, and it is from the interaction of these influences that it is hoped to attain the effective realization of the higher and more prosperous standard of life which has been characterized as "better business, better farming and better living".'[1]

'Every group of individuals, associated to secure a common end by joint effort, may be said to co-operate; for instance a football team, a gang of robbers or the shareholders of a speculative company. A century of history has given to Co-operation with a capital C a more precise meaning. It indicates the association of individuals to secure a common economic end by honest means: it is also essential in many forms of co-operation that the individuals possess a personal knowledge of one another.'[2]

'Co-operation in its technical sense means the abandonment of competition in distribution and production and the elimination of middlemen of all kinds.'[3] 'Co-operation begins in mutual help with a view to end in a common competence.'[4]

'It is a special form of economic organization in which the people work together for definite business purposes under certain definite business rules. The root of the co-operative idea is a relation between business and ethics which is greater than the necessary commercial honesty of our present industrial system.'[5]

It will thus be seen that in a co-operative society (i) the association of individuals for the achievement of the common economic

[1] *Maclagan Committee Report*, par. 2.
[2] C. F. Strickland, *Co-operation in India*, p. 12.
[3] Seligman, op. cit., p. 151.
[4] Myric, *Federal Farm Loan System*, p. 18.
[5] Gordon and O'Brien, *Co-operation in Denmark*.

good is purely voluntary, (ii) the moral aspect is as much emphasized as the material, and (iii) special importance is attached to the educative influence of co-operative effort.

The scope of co-operation in theory, at any rate, is as wide as that of economics itself. In practice, however, it has hitherto had a limited application in industry to production of wealth, though small industries like hand-loom weaving not requiring much capital, initiative and expert business ability may be helped by co-operative organization. As applied to modern large-scale industry which requires costly and complex machinery, expert business management and discipline, co-operation has not been found practically effective. In the field of purchase or consumption of wealth and of credit, however, it has attained a large measure of success and, as we shall see later on, experience in India does not constitute an exception to this general tendency.

Co-operation in Germany and Denmark.—The co-operative movement in India has been much influenced by the two most outstanding examples of co-operation abroad, namely, that of Germany and Denmark. Economic conditions in Germany about the middle of the last century as they affected the farmer and the country artisan were not far different from those in India to-day. Economic stagnation and exploitation by the moneylender was the common lot of the small farmer and artisan. This state of affairs made a strong impression upon two philanthropists who were contemporaries of each other. They were deeply stirred by the misery they saw around them and set to work independently of each other to relieve it. One of them, Schulze-Delitsch, started credit societies in order to improve the economic condition of petty traders and artisans, a class of people with whom he was brought into close contact in his capacity as a country judge. The other was Raiffeisen, a burgomaster who was employed in one of the poorest districts in Prussia, in which the half-starved peasantry were in the iron grip of moneylenders. He organized credit and later on other societies for these poor agriculturists. At first both these benefactors of humanity encountered the opposition of their Government and consequently the progress of the movement was slow. These difficulties were, however, soon overcome and the movement achieved such brilliant results that Germany came to be looked upon in other countries like Denmark, Italy and Ireland, as a model to imitate.

As credit societies, agricultural, and non-agricultural, have been based in India upon the Raiffeisen and Schulze-Delitsch types respectively, we may here describe the main features of each of them.

(i) In the case of a properly constituted Raiffeisen society the following requisites are generally insisted upon: (*a*) limitation of area of operation; (*b*) no shares, or very low shares (so as to prevent dividend-hunting and to enable even the poorest persons to become members); (*c*) unlimited liability (in order to ensure better credit and mutual supervision); (*d*) loans as far as possible for productive purposes only, and only to members; (*e*) credit for relatively long periods with facilities for repayment by instalments; (*f*) a permanent and inalienable reserve fund; (*g*) absence of profit-seeking and dividend-hunting and the crediting of profits to the reserve fund; (*h*) absolute gratuitousness of administration and democratic management; and (*i*) promotion of the moral as well as the material advancement of members.

(ii) The following are the features which differentiate the Schulze-Delitsch type from the Raiffeisen type:—

(*a*) Wider area of operation, (*b*) relatively greater importance of share capital; (*c*) limited liability; (*d*) short-term credit; (*e*) a smaller reserve fund, only a part of the profits being assigned to it; (*f*) a freer distribution of profits or dividends; (*g*) paid administration to secure efficiency; and (*h*) special emphasis laid on the business aspect of the society rather than on the moral results.

Both the types are necessary, being suited to meet the differing needs of the two classes of people for whom they are meant. We shall discuss this matter further when we take a survey of the credit societies established in India.

As regards co-operation in Denmark we must content ourselves here with pointing out that its most outstanding feature is the creation of a separate co-operative society for each separate need of the farmer, so that a perfect system of organization of agriculture on a co-operative basis at all its stages has been called into existence and the middleman has been completely eliminated everywhere. Even the export trade in the products of the dairy industry is managed by a special co-operative agency. This feature of Danish agricultural co-operation deserves to be carefully studied in India.

The co-operative movement has spread far and wide over the world, in the east as well as in the west, and has, in recent times, assumed an international character owing to its essentially humanitarian aims and tendencies. The recent institution of the Annual Co-operators' International Day is a fitting embodiment of the cosmopolitan significance of the co-operative movement in the capitalistic era in which we are living to-day and shows how

co-operation has come to be regarded as one of the chief hopes of the masses in all countries. As a cure for the evils of capitalism the advantage claimed by co-operation over socialism and other suggested remedies is that, while preserving intact the stimulus of self-interest, it organizes it on a higher plane and on the basis of collective effort.

3. **Co-operation and its uses in India.**—For us in India, co-operation has a special message. The bulk of our population consists of small farmers and artisans; and even in our growing towns, the principle of co-operation has beneficent applications: for example, in providing suitable housing for the benefit of the middle classes and the wage-earners. Moreover, though some of the western types of co-operation may be new, the principle and spirit of co-operation is by no means alien to the genius of the country, for it underlies many of its characteristic institutions, such as the caste system and the joint family and is also evidenced by organizations like the *nidhis* in Madras.

4. **Act of 1904.**—We have already reviewed the circumstances which led to the passing of the Co-operative Credit Societies Act of 1904. The Act provided for the formation of credit societies only and postponed all forms of non-credit co-operation. This policy was deliberately adopted, not because the vital importance of other kinds of co-operation was not fully realized, but because it was held that, among a relatively backward population, the difficulties involved in the management of productive and distributive business were likely to prove a stumbling-block in the way of progress. Credit societies with their simple organization and method of management afforded an easy field in which the principles of co-operation could be learnt and practised and attention was, therefore, mainly devoted to them.[1] Further, special emphasis was laid on rural rather than on urban credit in view of the more urgent character and greater importance of the former.

We may now notice the important provisions of the Act. Any association of ten persons who had attained their majority could apply for registration and form themselves into a Co-operative Society. The applicants and future members were to be from the same village or to be members of the same tribe or caste or to be from the same town. Credit societies were distinguished as rural and urban according as four-fifths of their members were agriculturists or not respectively. In the case of rural societies,

[1] See *Maclagan Committee Report*, par. 8.

unlimited liability was the rule; in the urban societies the matter was left to the option of the society. A rural society was to carry all its profits to an inalienable reserve fund, unless otherwise directed by the Local Government in special cases. In the case of urban societies, only one-fourth of the profits was to be carried to the reserve fund. Certain limits were placed on the size of the share capital where this was raised; no member was to hold more than one-fifth of the shares; the total value of an individual member's shares could not exceed Rs. 1,000; nor could he have more than one vote. The societies were to raise the required working capital by entrance fees, shares, deposits from the members and loans from outside, and were to distribute the funds so raised only among members. A loan from one society to another was to be subject to the permission of the Registrar. Registrars were to be appointed in all provinces to exercise supervision over the organization and control the movement. Government reserved certain powers for themselves such as (i) compulsory inspection and audit, (ii) compulsory dissolution of a society, if necessary, by the Registrar, subject to an appeal to the Provincial Government, and (iii) wide rule-making power.

The movement was assured generally of Government sympathy, assistance and guidance. The two cardinal objects which the Government kept in view in regard to the above provisions were simplicity and elasticity: simplicity so as to avoid elaborate schemes beyond the comprehension of the ryots, and elasticity to leave full scope for the development of the movement on lines suitable to each province, subject only to certain broad general principles incorporated in the Act.[1] To encourage the movement Government offered certain concessions and privileges to the societies registered under the Act, such as exemption from income-tax; stamp duties and registration fees; the grant of the benefits of a corporate body; priority over the ordinary creditors of a member next to land revenue; free Government audit, etc. Government also promised the grant of loans to societies free of interest for the first three years, subject to the condition that the loan was not to exceed Rs. 2,000, to be granted only up to an amount raised independently by the society concerned.

5. **Review of progress from 1904 to 1912.**—The various Provincial Governments lost no time in giving effect to the new scheme of co-operation under the guidance of the Registrars who were appointed for the purpose. In every province, the new

[1] See Sir Denzil Ibbetson's explanatory memorandum accompanying the Act of 1904.

doctrines struck root and the progress made was remarkable as will be seen from the following figures.

Year	Number of societies	Number of members of primary societies	Amount of working capital Rs.
1906- 7	843	90,844	23,71,683
1907- 8	1,357	149,160	44,14,086
1908- 9	1,963	180,338	82,32,225
1909-10	3,428	224,397	1,24,68,312
1910-11	5,321	305,058	2,03,05,800
1911-12	8,177	403,318	3,35,74,162

The movement soon outgrew the best expectations of its promoters at least so far as the number of societies started was concerned, and in two directions especially the need for a change in the Act of 1904 was felt. The credit societies established under this Act had paved the way for co-operative societies for distribution and purposes other than credit, for which as yet there was no legislative protection. At the same time, the need for a free supply of capital and an improved system of supervision had led to the formation of various central agencies, afterwards known as Unions and Central Banks, to finance and control the primary credit societies, and these also were not recognized by the Act of 1904.[1] Moreover, the classification of societies into urban and rural societies was found to be unscientific and inconvenient. Lastly, the prohibition of the distribution of profits in rural unlimited liability societies was a hardship, especially where, as in the Punjab and Madras, share capital had become important. On a re-examination of the whole situation the Government of India decided to pass entirely fresh legislation calculated to remove these deficiencies of the Act of 1904.

6. **The Co-operative Societies Act, 1912.**—The Act of 1912 recognized non-credit forms of co-operation affecting purchase, sale, production, insurance, housing, etc. It also recognized three kinds of central societies as distinguished from primary societies, namely, (i) Unions, consisting of primary societies for mutual control and audit, (ii) Central Banks, consisting partly of societies and partly of individuals and (iii) Provincial Banks, consisting of individuals.

[1] See *Maclagan Committee Report*, par. 5.

In view of the importance of share capital in certain provinces like Madras, the Punjab and Burma, permission was given to declare dividends on shares in unlimited liability societies, subject to the general or special permission of the Provincial Government concerned. Express permission was also given to all societies to set apart a portion of their profits, not exceeding ten per cent, for educational and charitable purposes, after one-fourth of the profits had been carried to the reserve fund. The new Act superseded the earlier distinction between rural and urban societies by a more scientific one between limited and unlimited liability societies. The Act laid down that the liability of a society of which the members are registered societies shall be limited, while that of a society of which the object is the provision of credit to its members and of which the majority of members are cultivators shall be unlimited, and that in all other cases it shall be optional.

7. **Progress of the movement subsequent to the Act of 1912.**— The immediate effect of the new Act was to give a fresh impetus to the co-operative movement. As will be seen from the following statement, the number of societies and their members have gone on increasing steadily, though the rate of progress has not been uniform in all provinces.

Year	Number of societies	Number of members of primary societies	Amount of working capital (Rs. 1,000)
1914-5	17,327	824,469	12,22,92
1916-7	23,036	1,048,425	31,12,25
1921-2	52,182	1,974,290	31,12,25
1923-4	61,106	2,313,567	40,52,97
1925-6	80,182	3,058,025	57,60,39
1927-8	96,091	3,780,173	76,70,87
1928-9	100,150	4,002,197	82,68,96
1929-30	104,187	4,181,904	89,51,78

The relative position of the provinces in 1929-30 may be gathered from the table given overleaf.[1]

[1] *Statistical Statements relating to the Co-operative Movement in India* (1929-30), Abstract Tables I-III.

(In 1929-30)

Province	Number of societies	Number of societies per 100,000 inhabitants	Number of members of primary societies	Number of members per 1,000 inhabitants	Amount of working capital (Rs. 1,000)	Number of annas per head of population
Madras	15,237	36·0	973,308	23·0	18,09,78	68
Bombay	5,734	29·7	563,086	29·2	12,81,39	106
Bengal	22,469	48·1	707,749	15·2	14,69,10	50
Bihar & Orissa	9,317	27·4	261,228	7·7	5,82,10	27
United Provinces	5,539	12·2	148,601	3·3	2,16,07	8
Punjab	20,293	98·0	644,941	31·2	18,54,79	143
Burma	3,222	27·5	88,037	7·5	2,76,56	38
C. P. & Berar	4,137	29·8	79,912	5·7	5,37,50	62
Assam	1,390	18·3	66,167	8·7	72,03	15
N.-W. F. Province	166	7·2	5,675	2·5	8,90	6
Coorg	264	132·0	13,750	68·8	9,97	80
Ajmer-Merwara	637	127·4	18,602	37·2	45,80	147
Hyderabad Administered area ...	17	17·0	5,403	54·0	4,62	74
Delhi	271	54·2	7,247	14·5	24,16	77
Total British India ...	88,963	36·2	3,583,706	14·6	81,92,77	53
Total Indian States[1] ...	15,494	45·7	598,198	17·6	7,59,01	36
Grand total	1,04,187	37·3	4,181,904	15·0	89,51,78	51

[1] The following Indian States are included (figures in brackets show the number of societies in each state): Mysore (2,102), Baroda (1,045), Hyderabad (2,136), Bhopal (1,175), Gwalior (3,864), Indore (432), Kashmir (2,746), Travancore (1,784), Cochin (210).

This table shows that, except in the Punjab, Bombay and Madras the movement in the major provinces has so far reached only a small part of the rural population. The figures quoted by the Agricultural Commission show that the percentage proportion of members of agricultural societies to the total number of families in the rural areas of the three exceptional provinces is 10·9, 10·0 and 8·3 respectively. It is only 1·8 in the United Provinces, 4·4 in Bengal, 2·4 in the Central Provinces, 3·2 in Bihar and Orissa, 3·9 in Burma, and 2·9 in Assam. Co-operation has developed more rapidly in rayatwari provinces because here the agriculturist has mortgage rights in his land and can therefore offer real security. In the landlord group of provinces he can offer only personal security.[1]

New types of societies for the sale of produce, cattle insurance, milk supply, yarn, silk and manure purchase, retailing of farm implements and common necessaries were started and most of them soon appeared to be prospering. The number of central societies was increasing rapidly and the movement was apparently fast winning the confidence of the public. In 1914, the Government of India reviewed the whole situation and issued a comprehensive Resolution laying down in general terms the practical lessons that might be drawn from experience up to date. The sums involved in the movement were becoming large, the arrangements for financial management in stages above that of the primary society were getting complicated, and the principles for the conduct of inspection and audit were in need of more precise enunciation. Before taking the responsibility of fostering and supporting further growth, Government wished to make sure that the movement was proceeding on economically and financially sound lines.[2] It was in these circumstances that the Maclagan Committee was appointed in October 1914 to inquire into and report on this aspect of the question. The movement entered on its third stage (the first two being marked by the Acts of 1904 and 1912 respectively) of development after the publication of the classic *Report* of this Committee in September 1915. We shall indicate at a later stage the main recommendations of the Committee and the action taken on them by Government. Here we need only observe that in recent years the movement has elicited a good deal of non-official support and has shown considerable progress on lines other than rural credit. Since the Reforms Act of 1919, co-operation has become a provincial transferred subject and has been placed under the care of a minister, and this may be regarded as the fourth stage of the progress of the

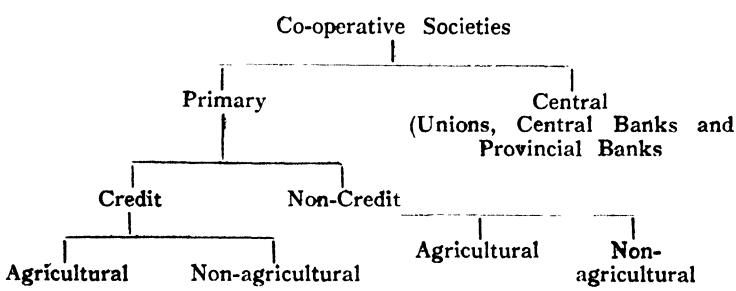
[1] *Agricultural Commission Report*, par. 372.
[2] See *Maclagan Committee Report*, par. 6.

movement. During the earlier years of the working of the reformed constitution several provinces made progress on lines most suitable to their local needs, and Bombay gave a lead to other provinces by passing a separate Co-operative Societies Act for itself in 1925. The Bombay Act, though mainly based upon the framework of the Act of 1912, introduces the following modifications:—

(i) A distinct classification of the various societies according to objects, finance and methods of working (see p. 303, *n.* 1); (ii) improvement of the procedure for the liquidation of cancelled societies; (iii) extension of summary powers of recovery through the awards of arbitrators; and (iv) provision of penalties against specified offences.[1] The lead thus given by Bombay is being followed up by other provinces, such as United Provinces and Central Provinces. Burma has already passed a Provincial Act (1927) on similar lines.

Though since 1921 there has been a large addition to the number of societies all over India, later efforts are being directed more largely to the consolidation and rectification of existing societies than to further rapid expansion. Another important step taken in recent years has been the institution of Committees of Enquiry by various provinces, such as the United Provinces, the Central Provinces, Madras and Burma.[2]

8. **Classification of Co-operative societies.**—We now proceed to study more in detail the main features of the co-operative movement.[3] The following classification of co-operative societies will give some idea of the complex co-operative structure that has been built up in India.



[1] See Khandekar, *The Bombay Co-operative Societies Act*, 1925, p. 3.

[2] *Report of the Central Banking Enquiry Committee*, par. 151.

[3] For a comprehensive account of the progress made by the co-operative movement in the different provinces and of its existing position in them, the *Reports* of the respective Banking Enquiry Committees as also the *Report of the Central Banking Enquiry Committee* (ch. ix) may be consulted.

Some idea of the relative importance of the main classes of societies may be formed from the following table:—

Type	Number of societies		Number of members	
	1906-7 to 1909-10 (average)	1929-30	1906-7 to 1909-10 (average)	1929-30
Central (including Provincial and Central Banks and Banking Unions)	17	598	1,987	211,550
Supervising and Guaranteeing Unions (including Re-insurance Societies).		1,282		35,974
Agricultural (including Cattle Insurance Societies)	1,713	92,051	107,643	3,121,243
Non-agricultural	196	10,256	54,267	1,060,661
Total ...	1,926	104,187	161,910 (Total number of members of primary societies)	4,181,904

The official classification[1] of co-operative societies adopted by the provinces on the suggestion of the International Institute of Agriculture at Rome is: (i) credit, (ii) purchase, or purchase and sale, (iii) production, (iv) production and sale, (v) insurance and (vi) others.

[1] We may indicate here the more scientific and satisfactory classification of societies adopted in the Bombay Act of 1925:—

(i) A 'resource society' means a society formed with the object of obtaining for its members the credit, goods, or services required by them.

(ii) A 'producers' society' means a society formed with the object of producing and disposing of goods as the collective property of its members and includes a society formed with the object of collective disposal of the goods of members of such a society.

(iii) A 'consumers' society' means a society formed with the object of obtaining and distributing goods to or of performing services for its members, as well as other consumers and of dividing among its members and customers, in a proportion prescribed by the rules or by the by-laws of such society, the profits accruing from such supply and distribution.

(iv) A 'housing society' means a society formed with the object of providing its members with dwelling houses on conditions to be determined by its by-laws.

(v) A 'general society' means a society not falling under any of the four classes mentioned above.

See H. Calvert, *Law and Principles of Co-operation in India.*

The following statistics give some idea of the progress made by various types of (i) agricultural and (ii) non-agricultural societies up to the year 1929-30.[1]

	Credit	Purchase and purchase and sale	Production	Production and sale	Other forms	Total number of societies	Number of members	Working capital in Rs.
				Agricultural Societies				
	82,554	416	1,140	1,271	835	91,786[2]	3,117,627	34,93,12,049
				Non-agricultural Societies				
	5,114	632	14	1,248	2,909	10,255[3]	1,059,048	15,06,44,304
Total	87,668	1,048	1,154	2,519	3,744	1,02,041	4,176,675	49,99,56,353

This brings out the overwhelming predominance of the credit societies, especially the agricultural credit societies and the comparatively poor development of other types, though the situation in this respect is gradually improving. This classification is somewhat defective in so far as the returns based on it do not give an adequate idea of the true development of co-operation in India in certain important directions. As we shall see later on, many a credit society in India has tacked on purchase or sale or production or a combination of two or three of these functions to its original business of giving credit.[4]

9. **Primary agricultural credit societies.**—Let us now consider the different types of co-operative societies in India, laying special emphasis on rural credit societies, which represent above ninety per cent of the total number of societies. Beginning with a typical primary agricultural credit society we may consider it under various headings as follows:—

(i) *Size.*—Any ten persons can apply for registration of a proposed rural credit society. The maximum strength of the society should preferably not exceed one hundred, because as the number increases the efficiency of management and supervision, as also the quality of training received by the members, suffers.

(ii) *The area of operation.*—The rule should be as far as possible one society for one village, which is usually the case. This is necessary to ensure mutual knowledge and the exercise of mutual

[1] *Statistical Statements Relating to the Co-operative Movement in India* (1929-30), pp. 12-15.

[2] Includes 5,570 societies for which details are not available.

[3] Includes 338 societies for which details are not available.

[4] See B. G. Bhatnagar, *The Co-operative Organization in British India*, p. 41.

control on the part of members. Exceptions to this rule in favour of shares (if any), be recoverable by a series of *per capita* levies

(iii) *Liability.*— This is unlimited unless exemption from this rule is permitted by Government. As the Maclagan Committee explain,[1] unlimited liability means contributory unlimited liability, that is, in the case of default 'where there is a deficit in the engagements of a society to its creditors, this deficit should, after the full payment of shares (if any), be recoverable by a series of *per capita* levies upon the members up to the full extent of their property, direct proceedings by a creditor against individual members being forbidden'. (Unlimited liability carries with it a two-fold advantage. It exercises an educative influence on the members by stimulating mutual control and supervision, and improves the credit of the society by inspiring confidence amongst its outside creditors.)

(iv) *The management.*—This is democratic and honorary.[2] It is entrusted to two bodies, namely, a general committee consisting of all the members and a managing committee which is a smaller body of from five to nine members chosen from among the members of the former body at its annual general meeting. The general committee elects members of the managing committee, appoints a paid secretary (who must not be a member), adopts the annual balance sheet submitted by the managing committee, considers the orders and reports of the registrar and auditors, expels members if necessary, fixes the maximum credit of the society as a whole and of the individual members separately, and amends the by-laws of the society. The managing committee is responsible for the routine and the executive business of the society. It admits new members, disposes of loan applications made by members, recovers arrears due from members and exercises supervision over them, raises funds for the society and inspects the accounts maintained by the secretary.

(v) *Working capital.*—The sources of this may be divided into two, internal and external. The internal sources consist of entrance fees paid by members, deposits by members, share capital if any, and surplus assets in the reserve fund of the society. Entrance fees are necessary to cover preliminary expenses and serve the useful purpose of bringing home to members that the privilege of membership implies sacrifice. Share capital plays only a small part, except in some provinces like the Punjab, Madras, United Provinces and

[1] *Maclagan Committee Report,* par. 47.

[2] Honorary services are necessary because the bank works with the primary object of facilitating loans at reasonable interest. Any addition to expenses would tend to nullify this object. Secondly, a sense of public duty and business habits are encouraged by gratuitous service. Thirdly, the amount of labour involved is so trifling that payment is scarcely justified.

Burma. Recently, the instalment share system has been introduced in the Bombay Presidency, especially in the canal areas, and it is welcome as a 'second line of defence' and as 'buttressing the unlimited liability of members'. It is generally defended on the ground that it helps a co-operative body in the speedy acquisition of a substantial permanent capital of its own. But on the whole, this object is best fulfilled by forming a substantial reserve fund fed by as wide a margin between the borrowing and lending rates as is consistent with the attainment of financial self-sufficiency on the one hand, and the provision of cheap credit on the other. A fairly wide margin is possible because lending rates are generally very high in India. Too low a rate of interest is also to be deprecated because it may tempt the borrowing members to re-lend. In the provinces mentioned above, members of rural credit societies have shown a preference for the share capital, so as to enable them to have their own capital. There should be no objection to this, provided the shares do not keep out poor persons and do not lead to dividend-hunting as in an ordinary joint-stock company; and as a matter of fact, the resort to share capital is often being found necessary to lessen the dependence on outside agencies. Deposits raised locally constitute a highly desirable method of raising the capital required by a rural credit society because they 'imply thrift in the village, form a good lying or reserve money, and they tend to interest in the management of the society a useful body of men who stand as sentries over their own deposits'.[1] Local deposits, however, form only a small part of the total working capital of rural societies in India.[2] The habit of deposit banking is yet in its infancy, especially in rural areas, and moneylending and commerce fetch higher rates of interest than can be secured on deposits. In the richer parts of the country the tendency towards the purchase of land or gold and silver still persists largely. Furthermore, the average income of the masses is very small and leaves a very narrow margin of saving, if any. But unless there is a substantial increase in the deposits, co-operation will have failed in one of its objects. The system of compulsory deposits is, however, unsound and thrift can be better stimulated by the introduction of shares payable by small instalments.[3]

[1] *Maclagan Committee Report,* par. 48.

[2] 'In Germany, more than eighty-seven per cent of the capital of the Raiffeisen societies consists of deposits, while in India the corresponding percentage is only eighteen. It must be remembered, however, that even in Europe deposits came in slowly at first, and in India we are still at an early and experimental stage.'—Ibid., loc. cit.—also *Report of the Central Banking Enquiry Committee,* par. 175.

[3] *Report of the Central Banking Enquiry Committee,* par. 155.

We must now turn to the external sources of capital. These are mainly loans and deposits from other societies, from Government, and most important of all, from secondary or central financing agencies like the central and provincial co-operative banks which have been found indispensable in every province. Government have very wisely avoided the policy of doles and have restricted their loans to quite an insignificant amount. Regarding loans from central financing agencies we shall have more to say later on when we deal with the problem of co-operative finance. We need only remark here that the rural credit societies are to-day largely dependent upon such outside loans, shares and deposits contributing only a fraction of their total working capital.

The following statistics show the relative position of the different constituents of the working capital of agricultural societies in 1929-30. Since, out of a total of 91,786 agricultural societies, 82,554 are credit societies, the figures given here may be regarded as fairly typical with reference to credit societies in general.

	Rs.
Share capital (paid up)	4,22,66,757
Loans and deposits held at the end of the year from:—	
Members	1,80,92,320
Non-members	1,38,71,952
Societies	21,46,368
Provincial or Central Banks	21,21,65,169
Government	23,30,503
Reserve Fund	5,84,38,980
Total ...	34,93,12,049

We may also give here statistics regarding the composition of the working capital of all societies in India in 1929-30.[1]

	Rs. (1,000)
Share capital (paid up)	11,93,60
Loans and deposits held at the end of the year from:—	
Members	5,98,02
Societies	3,57,79
Provincial or Central Banks	29,32,08
Government	1,81,85
Non-members and other sources	27,58,99
Reserve and other Funds	9,29,45
Total ...	89,51,78

[1] *Statistical Statements Relating to the Co-operative Movement in India* (1929-30), Abstract Table III.

(vi) *The object of loans.*—Loans are given to members only for three objects: productive purposes, non-productive purposes and redemption of past debts. Productive loans fall into three classes: short-term loans for current agricultural operations and payment of Government taxes, and long-term loans for permanent improvements on land. Loans for unproductive purposes, such as ceremonial expenses, are theoretically not permissible, but they are necessary to prevent the ryots from falling into the clutches of the money-lenders.[1] It is desirable, however, to inculcate economy as regards such expenditure by restricting these loans to small sums and to absolutely essential purposes. Turning to the redemption of past debts, the ideal policy should be to enable members to be free from all obligations other than those to their society. There are, however, two limiting considerations which make a wholesale redemption of the debts impracticable and undesirable; impracticable because of the impossibility of raising funds large enough for this purpose in addition to those required for loans to members for other purposes; undesirable because the psychology of a person chronically and heavily in debt, like the average cultivator in India, must be considered. A complete release from the burden of indebtedness effected at one stroke, even assuming such a feat to be possible, would have a distinctly demoralizing influence on the ryot and would lead to recklessness and extravagance. In the interests of thrift itself, emancipation from debt must come about by gradual stages. The point, however, is of purely academic interest, because owing to deficiency of funds what is to be feared is that the process of redemption will be too slow rather than too fast.

(vii) *Repayment of debts.*—As regards the time of repayment, the general rule is that agricultural finance should follow the agricultural cycle of crops which should be an average of good, bad and indifferent seasons. In other words, repayment should be made out of the proceeds of the productive objects for which the loan has been issued; as for unproductive loans, they should be so adjusted to the position of the borrowing member, that by the exercise of thrift it should be possible for him to save enough out of his income to meet the instalments of his loans as they fall due. More should not be lent than can be repaid by fairly easy instalments within a reasonable period. Punctual repayment should be

[1] In Bombay and Madras, a system of normal credit statement has been devised which provides for almost every need of the cultivator including unproductive expenditure on marriage, etc. and fixes the credit limit of each member in advance of the season and makes arrangements for the necessary finance in time. This system is endorsed by the Central Banking Enquiry Committee (*Report*, par. 174).

the ideal constantly striven for and laxity in this respect should be positively discouraged. Postponement should be granted only in urgent cases of real distress. Fictitious repayment and frequent and automatic renewals of loans should not be allowed as they do great injury to the interests of the society. The Provincial Banking Enquiry Committees have specially emphasized the feature of overdues and its evil effects. All precautions to ensure punctual repayments should be taken, such as the fixing of the normal credit of each member, careful selection of borrowers from amongst the applicants for loans, a proper scrutiny of the purpose of the loan and the repaying capacity of the borrower in dispensing co-operative loans and effective supervision—by other members and sureties—of the activities of the borrowing members, and so forth. It is also necessary that repayments of loans should not be restricted to the same period for all debtors but should be fixed according to the special needs of individual borrowers.[1]

(viii) *Security.*—The ideal co-operative security is that offered by honesty and character. 'Honesty should be capitalized.' In practice, however, the risk of bad debts may be lessened and the credit of the society as a whole may be improved by asking the borrowing member to furnish sureties, normally from among the members, and accepting as collateral security moveable and immoveable property, though material security is, strictly speaking, inconsistent with the dictates of co-operation. There is, of course, the consideration that if material security is altogether excluded, there is the danger of its owner pledging it with the moneylender. It has, therefore, to be tolerated to some extent. Under the law, mortgage security is permitted and power is given to Provincial Governments to regulate it for any society or class of societies as may be deemed advisable. In all cases, however, the main security ought to be personal and a general bias against material security should be maintained.

(ix) *Division of profits.*—There are no profits to be distributed in the ordinary commercial sense in a rural credit society, especially if there is no share capital, all profits being credited to the reserve fund. Exception may be made, however, in two cases provided for by the Act of 1912, which allows a certain amount of expenditure from the profits for such objects as education and charity, and the distribution of limited dividends on share capital where there is any. Such expenditure has the additional advantage of arousing interest in the movement. In no case, however,

[1] See *Maclagan Committee Report*, par. 63; V. L. Mehta, *Studies in Co-operative Finance*, pp. 84-6 and the *Report of the Central Banking Enquiry Committee*, par. 170.

should a co-operative society be allowed to degenerate into a dividend-hunting concern.

(x) *Arbitration.*—Arbitration for settlement of disputes between a society and its members is necessary to avoid the drain on the time, energy and the funds of the society and to discourage litigation by exempting the society from the jurisdiction of the ordinary civil courts and procedure. Such arrangements exist in Bombay and some other provinces.

(xi) *Summary powers.*—The grant of summary powers to societies for the recovery of arrears is most objectionable, militating, as it does, against the basic principle of co-operation. The only weapons of recovery should be the joint liability of members and exercise of moral force apart from the ordinary method of recovery through the civil courts. The grant of summary powers would lead to an injurious relaxation of close mutual vigilance and supervision.

(xii) *Dissolution.*—It is desirable to use the power of dissolving societies sparingly. But the power itself is necessary for the purpose of abolishing such societies as are a blot on the whole co-operative movement and offer no prospect of a useful career.[1] The Act has provided for the exercise of such power by the Registrar after an enquiry into the affairs of the society.

10. **The chief recommendations of the Maclagan and the Central Banking Enquiry Committees.**—We may close this survey of the primary rural credit societies by summing up briefly the main recommendations of the Maclagan Committee in this connexion most of which have received emphasis by the Central Banking Enquiry Committee.

The Maclagan Committee recognize the importance of rural credit societies and emphasize that, in the first instance, they should be co-operative and, in the second, businesslike. They lay down the following conditions as necessary to make them truly co-operative: (i) knowledge of co-operative principles and proper selection of members; (ii) honesty as the chief basis of credit; (iii) dealings with members only; (iv) loans not to be for speculative purposes; (v) exercise of careful scrutiny before advancing loans

[1] The causes put forward for the failure of societies are various and include a want of due supervision, indiscreet loans, contumacy of borrowers, unpunctuality in repayments, the restriction of loans to a few individuals, dishonesty or incompetence of society officials, bad selection of members, the extension of a society over too large an area, concealment of old debts, faulty constitution, internal dissensions, insufficient funds or membership, the preponderating influence of one member, and general lack of interest by members in the affairs of the society (*Maclagan Committee Report*, par. 86). See also the *Report of the Central Banking Enquiry Committee*, par. 178.

and proper vigilance afterwards; (vi) ultimate authority to be in the hands of members and not in those of office-bearers; (vii) encouragement of thrift and the constitution of an adequate reserve fund; (viii) only one vote for one member and maximum publicity within the society; (ix) capital to be raised as far as possible from savings amongst the members and neighbours; and (x) punctual repayment of loans.[1]

Regarding the starting of new societies, the Maclagan Committee sound a note of warning that the pace of the movement should not be unduly quickened from outside. The urge towards co-operation should be spontaneous as far as possible. The Committee also point to the necessity of guarding against the dangers of too facile credit arising out of unduly low rates of interest, and the need of basing agricultural finance on the agricultural cycle.

Turning to the business aspect, both the Committees express the opinion that under ideal conditions local deposits should form a substantial portion of the working capital and hold that the success of the rural credit movement should be judged by this standard. The Maclagan Committee recommend somewhat higher rates of interest on deposits of members and every other effort, short of compulsory deposits, to promote thrift and attract local deposits They do not favour deposits on current account as they cannot be safely lent out. For this reason, long-term deposits should be encouraged by offering higher rates of interest. Short-term deposits for less than one month may, however, be permitted to meet the demands for short-term loans. They also allow a second exception in favour of savings deposits to stimulate thrift. This recommendation is fully endorsed by the Central Banking Enquiry Committee. They emphasize that the ideal should be to lessen the present dependence of rural credit societies on central financing agencies which, however, are admitted to serve a useful purpose in the meanwhile. Both the Maclagan and the Central Banking Enquiry Committees observe that it is of the greatest importance to have an efficient and thorough audit and supervision in order to prevent bad management and embezzlement and to inspire the confidence of the investing public. The Central Banking Enquiry Committee point out that at present audit, supervision and inspection, which are closely allied functions, are vested in two and sometimes three different agencies, result in much overlapping of work and waste of effort and money. In order to overcome this defect they recommend that for the due discharge of statutory functions of audit, special District Unions should be formed to carry out

[1] See also *Report of the Central Banking Enquiry Committee*, par. 155.

audit, supervision and inspection of the societies—primary, central, credit and non-credit. The staff employed by the Union should be recruited from persons certified by the Registrar who should not, however, interfere in the internal management of the Union. There may be specially trained Government officials on the Board of these Unions, which should consist otherwise of the representatives of affiliated societies, and Government officials may also be deputed to serve on their staff. The District Unions may be federated into a separate Provincial (Apex) Union or may be affiliated to the existing Provincial Co-operative Institutes as a special branch thereof according to local conditions. The main task of the Provincial Union should be (*a*) supervision of District Unions, (*b*) audit of Central Banks and other central associations, and (*c*) audit of Provincial Banks, Provincial Institutes and other provincial co-operative organizations. The expenses should be met from contributions of affiliated societies and subsidies from Government.[1] The Maclagan Committee deprecate the grant of summary powers of recovery, approve of arbitration, and utter a warning against three dangers to which rural credit societies are liable, namely, (i) perversion to wrong ends, (ii) lack of active co-operative spirit, and (iii) unpunctuality of repayment. The first defect is generally considered to have been exaggerated by the Committee. As regards the second, most of our rural credit societies must be pronounced to fall short of the Co-operative ideal. Cheap moneylending through the society has come to be regarded as the most important aim, while other co-operative aims and safeguards are neglected.[2] The Bombay Central Co-operative Institute is doing very useful work in spreading sound education in co-operation and creating an enthusiasm for it. The defect of unpunctuality undoubtedly exists and is deplorable. There is far too large a proportion of overdue loans. This is due not so much to recalcitrancy as to slackness in recovery work, deterioration in general economic conditions and to defects in

[1] See *Report of the Central Banking Enquiry Committee*, par. 173.

[2] 'The necessity for developing a truly co-operative system rather than cheap moneylending and the danger involved in inviting deposits from the public for pseudo-co-operative institutions are matters that have been, to a serious extent, overlooked. Rapid extension has resulted in the growth of primary societies to an extent with which the Registrar and his staff were unable to cope, and faults have grown up which were inseparable from the lack of care, information and adequate means of supervision' (*Maclagan Committee Report*, par. 12). The United Provinces Banking Enquiry Committee make the useful suggestion that in order to engender the co-operative spirit, societies for rural reconstruction, better living or encouraging thrift should ordinarily be organized before credit societies; or if that is not possible, the two should be started side by side (*Report*, par. 291).

organization.[1] We have already dealt with the remedies proposed to overcome this defect.

11. **Non-agricultural credit societies.**—Speaking about the need for non-agricultural credit societies, the Maclagan Committee observe: 'With rising prices, insufficient and insanitary housing accommodation, wages often held in arrears, and a desire for a higher standard of living consequent on the spread of education, industrial difficulties are bound to increase, and we are of opinion that any form of organization, such as co-operative societies, that has a tendency to alleviate these difficulties is worthy of support.'[2] Moreover, the excessively seasonal demand for money by agricultural societies, makes it difficult for central banks to employ their capital profitably. Though, at the outset, more attention was paid to the starting of rural credit societies, non-agricultural credit societies of the Schulze-Delitsch type have also made some progress in all the provinces, a development which is in consonance with the policy recommended by the Maclagan Committee of abandoning the earlier emphasis on agricultural credit. The following main types of non-credit societies may now be discussed:—

(i) *People's banks.*—Urban credit societies of the Luzatti type, meant specially for the benefit of the middle class, serve a useful purpose in making good, at least partially, the deficiency of joint-stock banking facilities in India and supplying a training ground for the study of the theory and practice of banking, though they are often not truly co-operative.[3] In Bombay, there were in 1929-30, 76 full-fledged urban banks with a working capital of over Rs. 50,000 and 504 other urban banks and societies. Speaking of them, the Registrar of Co-operative Societies, Bombay, in his *Annual Report* for 1926-7, observes: 'It would be difficult to exaggerate the effect which the urban and people's banks are having on the life of the towns. Local trade is being developed or fostered in areas where otherwise population and industries are dwindling; small artisans and citizens in every walk of life are acquiring the banking habit;[4] and in almost every important town the influential persons of all castes and professions are taking up this side of co-operative activity as one of the main forms of public work.'

[1] See V. L. Mehta, 'Co-operative Finance', *The Bombay Co-operative Quarterly* (September 1929), and the *Report of the Central Banking Enquiry Committee*, par. 170.

[2] *Maclagan Committee Report*, par. 15.

[3] Ibid., par. 17.

[4] The *Annual Report* (1928-9) for Bombay refers (par. 80) appreciatively to the service being rendered by these societies in popularizing the use of cheques. See also *Report of the Bengal Provincial Banking Enquiry Committee*, par. 283.

(ii) *Communal societies.*—Credit societies based on communal lines particularly lend themselves to co-operative effort on account of the strength of the communal feeling, which, however, is to be discouraged on wider national grounds. Within certain limits, however, these societies are useful for the educational and economic uplift of backward communities.

(iii) *Societies for the employees of large firms and of Government departments.*—The objects of such societies ought to be mainly the encouragement of thrift and saving and not the wholesale redemption of past debts. Official tutelage and favouritism are the evils to be guarded against in this class of credit society.

(iv) *Artisans' societies.*—These correspond in their constitution and business to agricultural credit societies. Their area of operation is small, membership is open only to persons of the same occupation, the share capital is small and funds have to be borrowed from central institutions and other sources. Unlimited liability is, therefore, essential, though under the law it is optional. The most important of these societies are those established for weavers. The hand-loom weaving industry being even to-day the most important cottage industry, it needs organization on a co-operative basis and State assistance. In Bombay, considerable progress has been achieved in this direction, and direct financial help by Government to such societies would be thoroughly justified. A few credit societies for other small artisans, such as basket-makers, shoemakers, blacksmiths, carpenters, etc., have been organized, but the progress made so far has been inconsiderable. The hope may be expressed, however, that co-operation may be used as a lever for the revival of the small industries of India. The small artisan is indeed confronted with the same difficulties as the small farmer in respect of credit and other needs, and a simultaneous organization of both the types of small-scale industry is urgently called for.

(v) *Societies for mill-hands.*—There is an urgent need for credit societies among the mill-hands in such factory towns as Bombay and Calcutta. Their economic and social conditions are far from satisfactory. Low wages, bad housing, high cost of living, exploitation by jobbers, ignorance, illiteracy, heavy indebtedness and intemperance are some of the evils from which they are suffering. These conditions can be largely improved by organizing the wage-earners into co-operative societies. Public-spirited employers of labour like the Tatas and Currimbhoys have rendered some help to such societies, many of which have been organized by the Social Service League in Bombay for the benefit of mill-hands. Apart from providing cheap credit and promoting thrift, these societies also serve as centres for various social and educational activities

which react favourably on the efficiency of the workmen. The illiteracy of the worker and his migratory habits are among the major obstacles to the rapid progress of co-operation among mill-hands.

(vi) *Societies for depressed classes.*—The social and economic conditions of the depressed classes are much worse than even those of the factory hands, and co-operative societies are calculated not only to improve their economic condition but also to enable the depressed classes to raise their social status. A very praiseworthy attempt has been made in Bombay by the Debt Redemption Committee under the guidance of G. K. Deodhar of the Servants of India Society. The Committee supervise the organization of societies for the depressed classes, and instruct the members in the principles of co-operation. Government help the societies by grants for meeting the expenses of the Committee. In the Madras Presidency, similar work of relieving the 'untouchables' has been undertaken at various centres by Social Service Leagues.[1]

The Non-credit Co-operative Movement

12. **Some general questions.**—Before taking up a study of the various types of non-credit societies we may briefly discuss some general questions relating to the subject.

(i) *The recent development of the non-credit movement.*—'The forms of co-operative activity that have proved most popular and successful in England are those connected with purchase, production and distribution. But in most Continental countries, these branches of work were not undertaken until credit societies had been firmly established, and development in India has followed the Continental precedent.'[2] The growing demand for non-credit co-operation which manifested itself soon after the co-operative movement was launched, was a healthy sign of the appreciation of co-operative principles by the people and essential to the balanced development of the economic condition of the country as a whole. The Act of 1912, which recognized non-credit societies, was an effort to meet the demand. The progress made by the non-credit movement, however, has not been uniform in all the provinces. The earlier policy of concentration on rural credit has not yet weakened appreciably and there have been greater difficulties in the way of non-credit than of credit co-operation. At the same time, the importance of non-credit institutions is now being realized to some extent, as is attested by the establishment of societies for various purposes, such

[1] See V. L. Mehta and V. Subbaiya, *Co-operation in India*, pp. 111-2.
[2] *Maclagan Committee Report*, p. 107.

as purchase, sale, production, insurance and housing, both in the agricultural and the non-agricultural sphere. The general organization of agriculture on a co-operative basis, bringing within its scope all the stages of agriculture, is a movement fraught with great possibilities. The benefits from co-operative credit can be fully realized only if the middleman in other spheres is eliminated by the starting of co-operative societies for non-credit purposes as in Denmark. We are in full agreement with the Central Banking Enquiry Committee's recommendation (*Report*, par. 171) that the non-official leaders of the movement and the officials of the Co-operative Department should make special efforts in promoting societies of special types, such as joint cultivation societies, societies which provide manure and seeds or other agricultural requisites, processing societies in rural areas for rice-hulling, cotton-ginning, peeling of grains, preparing milk products and the like.

(ii) *Types of non-credit societies.*—We may divide the non-credit societies into agricultural and non-agricultural, each of which may be further subdivided into several types, such as societies for the purchase of raw materials and implements, sale of produce, production, distribution or consumption, insurance, construction and acquisition of dwelling houses, and miscellaneous. The official classification of non-credit societies and statistics pertaining to them have already been mentioned. It has also been pointed out that many credit societies undertake several non-credit activities as well.

(iii) *Liability.*—Under the Act, it is optional for non-credit societies to accept either limited or unlimited liability. The nature of the liability varies according to the needs and circumstances of the different types of societies. For example, agricultural non-credit societies will generally prefer limited liability, as their members are likely to have already pledged themselves to unlimited liability if they happen to be members of a credit society as well. Dairy societies and those of weavers, on the other hand, might find unlimited liability more suitable as their need for external capital is usually great.[1]

(iv) *Dealings with non-members.*—Such dealings, according to strict co-operative theory, are undesirable. In the case of artisans' insurance and building societies, dealings are necessarily confined to members. It is in purchase and sale societies that the question of dealings with non-members arises. If they are allowed, membership is apt to become stagnant and ordinary commercial profiteering is likely to creep in, and there will also be unfair

[1] See Mehta and Subbaiya, op. cit., p. 116.

competition with private traders as, under the Act, Co-operative societies enjoy certain privileges and concessions denied to the ordinary private trader. In certain cases, however, such dealings may be permitted, especially for propagandist purposes, to enable a society not only to manage its affairs with profit and economy but also to demonstrate its utility to non-members so that they also may join.

(v) *A separate society for a separate purpose.*—The true co-operative ideal demands a separate society for each purpose and, indeed, such a plan sounds most businesslike. The chief practical objection to it arises on account of the paucity of the right type of personnel for the management of several societies in a village. In such cases it is advisable to allow, say, a credit society to tack on other activities to its main business.[1] Calvert points out that in Bavaria, Saxony, Belgium, Austria, etc., the credit society or local bank does many other things besides supplying credit. 'The most striking feature of Japanese rural co-operation is the very common combination of various branches, purchase, sale and so on, and almost in every instance, credit in one and the same society.'[2] No definite rule or practice in this respect has yet been established in any province in India. The true line of advance, however, is indicated by Denmark where the co-operative organization of agriculture is highly developed, and where the individual agriculturist is at the same time a member of several societies in his village. It is necessary to avoid as far as possible 'the combination of incompatible activities or risking the unlimited liability of credit societies in transactions for which it is entirely unsuitable.'[3]

13. **Non-credit agricultural movement.**—We may now proceed to discuss the progress made by the non-credit movement in India in its two branches, agricultural and non-agricultural. The need for the non-credit agricultural movement is very great for, as the example of Denmark shows, agriculture can thrive in a country of peasant proprietors only if its operations are organized on a co-operative basis and the middleman is dispensed with, so that all the profits may go to the cultivators. The latter are at present mulcted heavily in their sale and purchase transactions by

[1] 'For business purposes separate societies are doubtless an advantage, but in a small village they are difficult to organize, and certainly more expensive to run. Opinion, in fact, is agreed that in a small village it is impossible to keep banking and trading apart.'—Darling.

[2] Calvert, *Law and Principles of Co-operation*, pp. 29-30.

[3] *Agricultural Commission Report*, par. 375.

the moneylender (who is generally a grocer and merchant as well) and other intermediaries.[1] Co-operative societies for obtaining implements, manures and seed of good quality at moderate prices, are needed, and a few of them have already been started, as also a certain number of co-operative sale societies. This is, however, an enormous task and the progress made so far has been slow. Co-operative supply has not made much advance as business is on a small scale and there is an absence of efficient management and adequate staff for supervision.[2]

A word may be said regarding some other types of non-credit agricultural societies started in India. The principle of co-operative insurance has so far been applied only to insurance of cattle; farm-buildings, crops and haystacks being left untouched. Cattle insurance societies were supposed until recently to be progressing very satisfactorily. But the Committee on Co-operation in Burma (1929) found that quite a large number of them were not doing well and would have to be wound up. The chief obstacles to success are the social disintegration of the village, prevalence of virulent cattle epidemics like rinderpest, and difficulty of management and finance. The development and extension of co-operative insurance in our agricultural system must, however, be steadily aimed at. Reference may also be made to cattle-breeding societies for improving the quality of cattle and for adequate provision of fodder by way of insurance against famine. The cattle section of the first Bombay Presidency Agricultural Show, 1926, served to prove the fact that such societies are capable of doing useful work. A few fencing societies have already been started, especially in the southern division of the Bombay Presidency, to protect the crops from the inroads of wild pigs and other pests. A small number of co-operative irrigation societies have been established and they offer a promising solution of the water problem in dry tracts where canal irrigation is expensive or impossible. They have achieved notable success in some districts in Bengal and Madras.

[1] 'Every farmer is, to a certain extent, a capitalist; every farmer is also a labourer, a buyer and a seller, and he is expected besides to be a highly scientific exploiter of the soil. He cannot specialize in all these functions, but he can combine with other farmers and share with them the expenses and advantages of specialization in each branch. Trade, commerce, finance and transport are all organized and between them will squeeze from the farmer all the profits of his industry, unless he too organizes and thereby controls his destiny. It is the rapid organization amongst those with whom he deals that forces upon him the imperative need of organization with his neighbours' (Calvert, *Law and Principles of Co-operation*, p. 50).

[2] See *Annual Report of the Registrar of Co-operative Societies, Bombay* (1928-9), par. 53; also ibid., (1929-30), par. 56.

Another remarkable instance of co-operative activity to which allusion has already been made, is the work that is being done for consolidation of holdings in certain Punjab villages. The field of co-operative farming has hardly been touched. It is obvious that the successful introduction of improved husbandry demands joint cultivation on a co-operative basis, as in Italy, especially so long as agricultural holdings continue to be tiny and scattered.

The consumers' movement which has achieved such striking progress in England, has made very little headway in India, especially in the rural areas. Indeed, the domestic needs of the rural community are so few and are met so effectively either out of local produce or at village bazaars, and the standard of living is so low that distributive co-operation has hardly any scope, even if we ignore other difficulties regarding management, etc. Hope lies only in the general advance of the rural masses and an improvement in their standard of living. There is a great scope for dairy societies to supply pure milk at moderate prices, especially to the towns. There are a few such societies scattered about the country but a great many more are wanted.

The co-operative movement in Indian agriculture is still in its infancy and there is any amount of highly useful work cut out for non-credit agricultural co-operation which, in Denmark and some other European countries, has equipped the peasant so thoroughly as to enable him to compete on equal terms with the capitalist farmer.[1] As Dr. Clouston says: 'The good work done by the cotton sale societies in Bombay, the irrigation and milk societies in Bengal, the co-operative seed societies and dairy societies in the Central Provinces, and the societies for the consolidation of holdings, clearance of silt in canals and sale of farm produce in the Punjab, encourages one to hope that, given the necessary organizing staff, co-operation will play in course of time as great a part in assuring the cultivator of the full return of his labour as it has in providing him with cheap capital.'[2] In order that Government may help this consummation more effectively, one of the reforms needed is a closer co-ordination of activities between the Co-operative Department on the one hand, and the Agricultural and Veterinary Departments on the other. Indeed, co-operative societies promise to be the best agency for the propagandist activities of the Agricultural and Veterinary Departments. It is only through a wide development of non-credit co-operation that the teaching of

[1] See Irvine, *The Making of Rural Europe*, p. 195.

[2] *Review of Agricultural Operations in India* (1926-7).

the expert can be brought to the masses who could never be reached individually by any official organization.[1] A movement in this direction has been made in Bombay by the establishment of Divisional Boards consisting of the Assistant Registrar of Co-operative Societies, the Deputy Director of Agriculture and some non-official representatives. To carry out their work, special agricultural organizers have been appointed. The actual work in the rural areas is to be done by the Taluka Development Associations registered under the Co-operative Societies Act. The Agricultural Commission suggest that the desirability of appointing in every province a special officer of the grade of Deputy Director of Agriculture to work under the Registrar to encourage, improve and increase non-credit societies and to explore all other forms of co-operative activity, should be examined (*Report*, par. 388).

14. **Non-credit non-agricultural societies.**—Though this movement has not yet gained sufficient strength, some progress has already been made in the different provinces (see Table on p. 304). As the Maclagan Committee found, 'successful attempts have been made to arrange for the purchase of yarn and silk for weavers, cane for basket-makers, timber for carpenters, and implements (sometimes of improved pattern) for several industries, the production and sale of cotton and silk cloth, durries, and furniture. Building societies have been organized. The purchase and sale of most sorts of common necessaries is being carried on at various co-operative stores.'[2] We may now discuss the various types of non-credit non-agricultural organizations.

(i) *Artisans' societies for purchase and sale.*—As in the case of the farmer so in that of the artisan, not only credit but also other needs must be organized on a co-operative basis for the improvement of the economic condition of our cottage industries. The hand-loom industry offers an excellent field for co-operative organization directed towards the attainment of such objects as wholesale purchase of raw material, the employment of improved looms and implements and the direct sale of cloth to the consumers. The co-operative industrial exhibitions held at various centres give a good idea regarding the range and variety of such co-operative products. In Bombay, the importance of co-operative weaving has been recognized by Government, who are running a few weaving schools under the supervision of the Co-operative Department. Some progress has been made in the case of other artisans such as

[1] *Agricultural Commission Report*, par. 386.
[2] *Maclagan Committee Report*, par. 10.

shoe-makers, goldsmiths, cane-workers, furniture-makers, coppersmiths, etc.

(ii) *Unskilled labourers' societies.*—In various districts in Madras co-operative societies of unskilled labourers are found which undertake considerable contracts for earthwork, road repairs, etc., requiring largely unskilled labour. They include many small ryots who have been enabled thus to increase their agricultural earnings. The difficulties they encounter are opposition of vested interests, namely, those of private contractors, and mismanagement. There are other societies also which take up joint road construction.[1]

(iii) *Consumers' societies in urban areas.*—Reference has already been made to the backwardness of this movement in rural areas. The situation is only slightly better in urban areas. A few co-operative stores have been started in Bombay, Madras, United Provinces, etc. The Triplicane Stores, Madras, may be regarded as the most successful among such stores. Stores attached to college hostels are being managed with notable success in some cases in the United Provinces and Bombay. Railway stores have also proved successful. Taken as a whole, however, we are faced with the fact that the progress made by the consumers' movement is insignificant as compared with that in western countries, especially England. There are several difficulties that must be overcome. As the Registrar of Co-operative Societies, Bombay, observes: 'The main reasons why several societies (consumers') have done badly are want of loyalty on the part of members, lack of good business management and proper supervision.'[2] Other difficulties are the small margin between the wholesale and retail prices which is not sufficiently attractive to the consumers, absence of a large class of people with settled periodical incomes, and disregard in some cases of true co-operative safeguards such as sales for cash only, dealings with members only, etc. There is no doubt that while the need of distributive stores is imperative for the benefit of the middle and working classes in towns, the consumers' movement is the weakest part of the Indian co-operative organization. Unless people acquire habits of systematic well-planned expenditure and are able to exercise a sound judgment as regards the quality of the goods bought, the stores movement will hardly prosper.

[1] See *Agricultural Commission Report,* Minutes of Evidence, vol. III, evidence of the Registrar, Madras; also his *Annual Report* (1927-8), par. 82.

[2] See *Annual Reports* (1923-4) and (1927-8). Cf. 'The Co-operative Stores in urban areas are almost all unsuccessful. They should be liquidated and no new stores formed either in urban or rural areas unless there is clear evidence of loyalty and co-operative spirit among the members' (*Report of the Bengal Provincial Banking Enquiry Committee,* par. 179).

15. **Housing societies.**—Among the various efforts made in England to tackle the problem of the slums of the factory towns and to provide decent housing accommodation, co-operative housing societies occupy a prominent place. Their success in England has attracted attention in India. In factory towns like Bombay and other urban areas, we have now to face a similar problem, not to speak of the tremendous task of providing decent housing in the villages. In some of the towns of Madras, Mysore and, more recently, Bombay, a beginning has already been made in the direction of co-operative housing. The Government of Bombay have recently issued rules regarding the financial help they are prepared to offer to building societies of various kinds. In the town of Bombay, under the auspices of the Bombay Co-operative Housing Association, a number of housing societies have been organized chiefly for the benefit of middle class communities.

Four main types of building societies may be distinguished: (i) land societies, which only purchase the building sites or plots for their members, who build on them separately each on his own account; (ii) mutual benefit lending societies, which build houses on a co-operative basis but with the ultimate object of enabling their members to own them. Both these types are not truly co-operative inasmuch as co-operation amongst members covers only a small part of their activity and is not intended to be permanent; they are more suited to meet the needs of the well-to-do classes. The following types are better adapted to meet the case of the poorer classes; (iii) tenant co-partnership societies, under which the houses are not only built jointly but are jointly owned and maintained in good condition, the necessary funds being raised by shares subscribed to by members and external loans on the security of the joint house property; (iv) societies for hiring and purchasing houses, which are particularly suited to supply the need of the wage-earner in factory towns, for he cannot afford even to construct and own houses jointly with his fellows, much less to own them on his own account.[1]

16. **Central societies and co-operative finance.**—We have so far discussed the various types of primary societies. It remains now to say something about the higher stages of the co-operative pyramid that have been devised to organize, supervise and finance the primary societies of various kinds. We may consider this aspect of the movement with reference to three types of central societies, namely, unions, central banks and provincial banks. The

[1] See Mehta and Subbaiya, op. cit., pp. 131-3.

following statistics show the extent of development of these three types of societies in 1929-30.

Unions

Number of unions	Number of societies affiliated	Total number of individuals in societies affiliated	Total working capital of affiliated societies Rs.
1,281	35,968	1,593,552	23,81,63,605

Central banks

Number of banks	Number of members		Working capital Rs.
	Individuals	Societies	
588	89,956	1,01,399	30,90,22,374

Provincial banks

10	1,627	18,568	8,62,00,508

(i) *Unions.*—'Almost all provinces in India have some central co-operative agency covering a unit very much smaller than the revenue district for supervision and assessment of credit.'[1] These are either (*a*) guaranteeing unions, as in Burma, (*b*) supervising unions, as in Madras and Bombay, or (*c*) banking unions, as in the Punjab, etc. A union consists of about five or more societies usually situated within a maximum radius of five to eight miles from the union headquarters. The management is in the hands of a union committee consisting of the representatives of the various member societies. It appoints a paid secretary and a sub-committee to inspect the affairs of member societies and guides them in their working. Where the union is also a guaranteeing union, the committee further determines the total external borrowings for its member societies which it is prepared to recommend to the central financing bank, and to which it extends, under certain conditions, a guarantee regarding the bank's loans to member societies. These recommendations may, it is claimed, be relied upon by the central bank, for the primary societies are also shareholders of the bank.

[1] Mehta, op. cit., p. 76.

The unions, it was thought, would be useful not only in supervising the affairs of the member societies but also as forming a link between the primary societies and central financing institutions, though they themselves are not financing bodies. The Maclagan Committee strongly recommend the establishment of a guaranteeing union where there are primary societies and central banks. They consider that it is indispensable where there is only a provincial bank dealing directly with primary societies. The guaranteeing unions started in Bombay have not proved a success, partly because in most cases the so-called guarantee was nominal and partly because funds being limited, no competent supervisor could be engaged. The work of the committee was often irregular and inefficient.[1] It has, however, now been decided to encourage only the supervising unions covering large areas and, therefore, in a financial position to provide for efficient supervision. The guaranteeing unions used to be cited until recently as highly successful instances of this type of organization and described as the mainspring of the co-operative movement in Burma. This opinion is now recognized to have been mistaken, so much so that the Committee on Co-operation in Burma (1928-9) consider the unions as largely responsible for the defects of the movement in that province, and recommend the abolition of the union guarantee as soon as practicable and the reconstruction of the union system, so that the unions should be only supervising and educative bodies.[2]

(ii) *Central banks.*—Central co-operative banks are in general the higher financing agencies necessary in a country like India where the capital raised locally by the primary societies requires to be largely supplemented from outside and distant money-markets.[3] Hence arises the necessity of establishing higher federations which will successively connect the primary societies with the most remote towns and which will make their monetary resources available as the working capital of such societies. Such a special co-operative financing mechanism is necessary, first, because rural finance requires large amounts of long-term capital and secondly, because the ordinary joint-stock banks carrying on their business only in a few important towns cannot be persuaded to issue loans to distant

[1] See *Annual Report of the Registrar, Bombay* (1923-4), p. 9; also Mehta, op. cit., pp. 77-8, for fuller discussion of the question.

[2] See *Report of the Burma Committee on Co-operation,* pars. 51-4.

[3] 'Money flows from the provincial bank to the central bank and from the central bank to the rural societies and from them to the individual borrowers. The underlying idea of the financial distributory system is that the resources of the society should be made available to thousands of small cultivators who need accommodation' (*Report of the Central Banking Enquiry Committee,* par. 158).

rural societies of which they know next to nothing, even if they were in a position, which generally they are not, to issue long-term loans. The Maclagan Committee, therefore, advocate one central bank for each district.

The central bank serves as a balancing centre for adjusting the excesses and deficiencies of the working capital of the primary societies under its jurisdiction. It raises the additional capital required by the primary societies and lends it to them either directly or through guaranteeing unions where these exist. In some cases, the central bank may undertake organization and supervision of societies, especially if, as is usually the case, they are its shareholders. The central bank, however, is essentially a financing agency. The area of its operation usually extends over the administrative district, though it may vary from a big taluka to a small province. Too small an area leads to unduly heavy cost of management, while too large an area to inefficient supervision. In every case, effort must be made to strike the golden mean between the two extremes.

Central banks are of three types: capitalist, mixed and pure, according to their constitution.[1] The capitalist central banks are dominated by individual shareholders. They are practically like ordinary joint-stock banks and lack the true co-operative character. For some time, however, they may be necessary to provide societies with adequate working capital if it cannot be raised otherwise. Mixed central banks, consisting partly of societies and partly of individuals, offer special facilities to the former regarding share capital and representation on the board of management. Such types of banks are acceptable as a step leading to the realization of the ideal federal type, namely, a central bank consisting of societies only. The mixed central bank, while enlisting the advice and help of well-to-do expert businessmen and members of the middle classes, safeguards the interests of societies and can itself be transformed into the ideal type of pure central bank in which individual members are completely eliminated. The mixed type is the most suitable under the present circumstances in India, and is favoured in almost all the provinces. The ideal federal type, though theoretically the best, labours under certain handicaps, namely, inability to be entirely self-dependent in the matter of supplying the necessary business ability and failure to interest the middle classes and, therefore, to attract sufficient resources to finance primary societies. In some provinces like Bengal and the Punjab, there is a growing number of purely federal central banks (banking unions).

[1] See Mehta and Subbaiya, op. cit., p. 138.

As regards the sources of the working capital, though share capital is an important item, deposits from individuals and societies constitute the bulk of working capital in the case of both central and provincial banks, as can be seen from the statistics for 1929-30.[1]

Constituents of the working capital	Central Banks	Provincial Banks
	Rs.	Rs.
Share Capital	2,95,26,016	65,55,036
Loans and Deposits from :—		
Societies	2,23,70,486	1,01,77,945
Provincial or Central Banks ...	4,60,10,852	2,17,88,400
Government	59,26,198	17,53,356
Individual and other sources ...	18,65,86,392	4,23,38,517
Reserve and other funds ...	1,76,02,430	35,87,254
	30,90,22,374	8,62,00,508

For this reason, it is necessary not only to have adequate cash reserves or fluid resources, a point on which the Maclagan Committee lay special, and as many would have it, exaggerated emphasis,[2] but also to attract a sufficiency of long-term deposits. Central banks should so adjust their loans to primary societies as to ensure adequate repayment for the return of deposits when they fall due. To impart elasticity to the operations of the banks, provision of facilities such as cash credits and discounting of their co-operative paper is necessary. This brings us to a discussion of the nature and utility of provincial co-operative banks.

(iii) *Provincial co-operative banks.*—To enable them to perform their functions properly, the central banks require the help of a

[1] *Statistical Statements Relating to the Co-operative Movement in India* (1929-30), pp. 10-1.

[2] The Maclagan Committee recommend that apart from the needs of current and savings deposits, which should be covered practically by a full reserve, the central bank should hold liquid assets up to half the total fixed deposits, a standard of one-third being held to be sufficient in the case of provincial banks. This will lead to high lending rates depriving co-operation of its principal attractiveness to the small borrower. Again, the adoption of a rigidly uniform system leaves no discretion to the banks to feel the pulse of the market and act accordingly. A more workable plan would seem to be that adopted by commercial banks of standing, which limit liability to eight times the owned capital. A maximum limit of eight to twelve times the owned capital is prescribed in various provinces, where societies with limited liability cannot receive deposits beyond this (see *Maclagan Committee Report*, par. 18; also Mehta, op. cit., p. 132).

provincial apex bank to co-ordinate and control their working, serve as a clearing house to balance the excesses and deficiencies of their working capital, and act as the financial centre of the province. It would also extend to central banks the facilities of cash credit and discounting referred to above. The joint-stock banks cannot be depended upon in this matter as they are unable to accept the particular security offered. The provincial bank is also a useful link between the general money-market and the joint-stock banks in the towns on the one hand, and the primary rural societies on the other. In this connexion, reference may be made to an interesting development in Bengal of making the surplus co-operative money accumulated in the provincial bank in the slack season of agriculture available for the needs of the outside trade and commerce through the joint-stock banks, to the advantage of both parties. The provincial apex banks should not deal directly with primary societies, but should consolidate and strengthen their position as financing agencies and balancing centres for central banks.[1]

Regarding the constitution of the provincial bank, the same considerations apply as in the case of the central bank. For a time, the capitalist provincial bank may have to be the only alternative for raising sufficient funds to supplement the working capital of central banks and primary societies and to ensure the supply of the requisite business knowledge. Steps, however, should be taken eventually to secure a majority of votes to the affiliated co-operative institutions.

Provincial apex banks more or less on these lines have been already established in Madras, Bombay, Bengal, Bihar and Orissa, the Punjab, Burma, Central Provinces and Berar, and Assam.[2] Out of these the Bombay Provincial Bank, started in 1911 as a central bank, is unanimously pronounced to be the most efficient and its activities are multifarious. 'There is no form of co-operative development or endeavour, whether of finance, propaganda or supervision, in which it does not take part.'[3]

Regarding the working capital, the necessity of a cash reserve, and provision of facilities such as cash credit and re-discounting of co-operative paper discounted in the first instance by the provincial bank, the same considerations hold good as in the case of central banks.

[1] See *Report of the Central Banking Enquiry Committee*, par. 159.

[2] A similar bank is proposed for the United Provinces by the U. P. Banking Enquiry Committee (*Report*, par. 308) a recommendation strongly supported by the Central Banking Enquiry Committee (*Report*, par. 158).

[3] *Annual Report of the Registrar, Bombay* (1926-7).

(iv) *All-India co-operative bank.*—The Maclagan Committee have recommended that in addition to all the foregoing types of financing agencies, an all-India co-operative bank should be established to help the provincial banks as the latter help, in a narrower sphere, the central banks.[1]

Since the Maclagan Committee reported, opinion on the necessity or desirability of an all-India bank has undergone considerable change. The new factors in the situation are the present superfluity of funds lying unutilized with the provincial banks, most of which hold fluid resources in excess even of the very high standard suggested by the Committee of 1915; the assurance of financial accommodation which many of them have succeeded in obtaining from the Imperial Bank of India[2] or other banks, the fact that co-operation is now a transferred subject and the provinces are anxious to retain full liberty to develop along their own lines without being fettered by any external authority such as an all-India bank, and lastly, the initiation of a spontaneous and healthy system of inter-lending which the various provincial banks have developed.[3] The Central Banking Enquiry Committee think that when the Reserve Bank is established the need for an apex bank for the provincial banks will no longer be felt, as the provincial banks will then be provided by the Reserve Bank with all the financial facilities required by them. There is no need for the apex bank for the present.[4]

[1] The grounds for this recommendation urged by the Committee may be summarized as follows: there exists at present no agency in India to provide the co-operative banks with facilities for re-discounting and so to give their finance that elasticity without which present stability and progressive development of the movement appear to be difficult; commercial banks will not voluntarily undertake this work and if some arrangement cannot be made with the Presidency Banks—now the local head offices of the Imperial Bank—by which they will undertake the duty of re-discounting co-operative and agricultural paper for the provincial co-operative banks, the only alternative solution appears to lie in the establishment of a State co-operative apex bank (see *Report*, pars. 219-20).

[2] Unfortunately the policy of the Imperial Bank of India in regard to the grant of financial assistance to some of the provincial and central banks seems of late to have undergone a definite change and it is stated that it shows today a much smaller measure of readiness to help them than it used to do in the past. This is particularly so in the case of the Bombay Provincial Co-operative Bank. We fully endorse the emphasis laid by the Central Banking Enquiry Committee on the importance of cash credit and overdraft facilities being generously given by the Imperial Bank of India on proper co-operative paper. See *Report of the Central Banking Enquiry Committee*, par. 179.

[3] See Mehta, op. cit., pp. 166-70.

[4] See *Report of the Central Banking Enquiry Committee*, par. 158.

17. **The State in relation to the co-operative movement.**—It is the duty of the State to offer its good offices and to act as friend, philosopher and guide to the co-operative movement, which is recognized on all sides to be a powerful agency for bringing about social regeneration. Well-meant State interference and assistance may of course be carried to the extent of spoon-feeding, which is objectionable, because it runs counter to the very bed-rock principle of co-operation, that people must achieve their salvation through their own efforts. On the other hand, the State's fear of the evils of excessive interference may lead it to adopt a policy of extreme *laissez-faire* amounting to callous indifference and unconcern, and the essence of statesmanship lies in steering clear of both these extremes and not grasping either virtue so hard as to transform it into its opposite vice. In India, owing to the widespread ignorance of the masses, the long tradition of State interference and the urgency of the problem of rural credit, Government have very properly taken a vigorous initiative in the co-operative movement. Equally properly, they have refrained from the policy of financial spoon-feeding, which as the experience of France shows, does more harm than good. We fully approve of the recommendation of the Central Banking Enquiry Committee that in the interest of the general taxpayer and to encourage self-help and self-reliance in the co-operators themselves, State aid should be of a temporary nature, sufficient to enable the societies to tide over a crisis (*Report*, par. 187). From this point of view, private enterprise, as measured by the growing volume of the working capital engaged in the movement, has been strikingly successful in the short time that has elapsed since 1904. We have already seen that the State has conferred on co-operative institutions certain fiscal and judicial concessions and granted limited financial help to new societies. In Bombay, the Government have gone a few steps further with ample justification for their policy. In the first place, they have extended a guarantee of interest at four per cent on the debentures issued by the Bombay Provincial Co-operative Bank up to a maximum amount of twenty lakhs of rupees. This concession has enabled the bank to raise the much-needed long-term capital for rural finance at a moderate rate without any drain on the funds of the Government, who are not likely to be called upon to make good the guarantee on account of the safe character of this business of the bank. In the second place, Government have adopted the policy of advancing takkavi loans for permanent improvements of land through the agency of co-operative societies. It would be sound policy in all the provinces to extend liberal assistance to the more specialized forms of co-operation, such as consolidation of

holdings, adult education, irrigation, etc.[1] When the Reserve Bank of India is established, provision should be made in the Reserve Bank Act itself to link up co-operative banks with the Central Bank of the country and to include as one of the functions of the Reserve Bank the financing of agriculture.

Turning to the policy of the Government as regards guiding and controlling the movement, it has been on the whole a sound one. For instance, in negativing the demand made in certain quarters for the devolution of some of the duties of the Registrar on the District Officer, Government have rightly agreed with the Maclagan Committee, who deprecate excessive official interference and lay down that 'the correct position of such servants as the Collector would be to stand as well-wishers equipped with the requisite knowledge and sympathy and to refrain from having any intimate connexion with the management or assuming any direct financial responsibility'. The State has often clearly expressed its wish that its servants should not have any large interest in such matters, though, of course, as the Agricultural Commission point out, 'it is the duty of the officers of all departments to render such assistance to the promotion of the movement as the nature of their particular duties permits.' An exception, however, seems to be implied as regards the relation between the Co-operative Department and the movement of co-operation. While the original policy was progressively to relax the hold of the Department and to make the Registrar ultimately little more than a registering officer as the societies became self-reliant and private enterprise was capable of standing on its own legs, it does not seem to have been consistently carried out. If anything, the position of the Registrar is becoming one of increasing dominance and the dry-nurse element in his duties is not showing any signs of disappearance. And the Maclagan Committee appear to put the seal of their approval on this apparently retrograde policy. They recommend that the Registrar should wield the power of the 'money stick', that is to say, should control the maximum borrowings of all classes of societies and adoption of rates of interest and that he should supervise the work of the establishment for the preaching of co-operative principles and control the primary audit of societies conducted non-officially. In addition to the Registrar, they propose the appointment of a Joint Registrar for every hundred societies. The Committee hold that, in general, the continued development of co-operation in India on any other condition than the permanent maintenance of an efficient and highly paid staff of Registrars cannot be contemplated. It is,

[1] See *Report of the Central Banking Enquiry Committee*, par. 191.

however, generally agreed that even at the risk of some inefficiency, the policy ought to be to encourage responsible private enterprise and to deofficialize the movement as far as possible and make it more self-reliant.[1] For this purpose, the Madras plan of conferring the status of 'Honorary Assistant Registrars' on non-official organizers appears to be a step in the right direction. Another way to make the movement more non-official in character, would be to give all possible encouragement to non-official bodies like the Bombay Central Co-operative Institute or the Federation of Central Banks in the Central Provinces, to delegate to them some of the functions of the Registrar in the matter of supervision, organization and audit of societies and to stimulate them to carry on propaganda by holding conferences, arranging training classes for society office-bearers and the general public, conducting journals and generally devoting themselves to rural reconstruction work. The vital need of the movement is the creation by unofficial federations and other central agencies of their own supervising and controlling staff, the absence or inadequacy of which inevitably leads to official interference. An official audit at suitable intervals may be retained as a healthy check on the affairs of the societies and to ensure public confidence. Official control and guidance are no doubt necessary and will continue to be so for some time to come. And there is nothing wrong in pleading for an increase of the official staff to enable the department to perform its statutory duties more efficiently and to insist that it should be highly educated, well-trained and well-paid. It is also quite legitimate to urge that in view of his onerous and difficult duties 'the personality of the Registrar is a matter of the greatest importance and that the best man available should be selected for the post'.[2] But officials and non-officials alike concerned in the movement should direct strenuous efforts towards making it self-regulating, self-sufficing and democratic as rapidly as circumstances permit. We therefore welcome the

[1] Regarding the question whether the time has or has not come for the partial emancipation of the co-operative movement in India and 'letting the child of 1904, now grown to manhood, exercise the office of man', Mr. Henry Wolff remarks: 'The answer to that will be both "Yes" and "No". Over the whole expanse of India there is undoubtedly wide ground still, on which there is no ground whatever for the change. But there are happy cases in which co-operation has prospered and entirely fitted practising co-operators to undertake their own management' (*The Bombay Co-operative Quarterly*, December 1928, article on *Agricultural Commission Report*).

[2] For an excellent discussion of the qualifications which the Registrar ought to possess and the all-embracing nature of his functions, see *Agricultural Commission Report*, par. 376, and also C. F. Strickland, *Report on Agricultural Co-operation in Palestine*, pars. 26-9.

recommendation made by the Central Banking Enquiry Committee (*Report*, par. 168) that in order to popularize the co-operative movement and to promote a sense of responsibility among the members of societies the official control that now exists in certain provinces should be slackened.

Speaking of Bombay, we may say that there are welcome signs of withdrawal of official control and encouragement of non-official agencies. The recent Bombay Co-operative Societies Act has recognized the Bombay Central Co-operative Institute, which under a non-official president serves to focus the co-operative activities of the Presidency, including the holding of the provincial co-operative conferences. The Institute, which had 5,755 members (4,855 societies and 900 individuals) on 31 March 1930, receives a handsome grant from the Provincial Government for its threefold work of propaganda, training, and publication of co-operative literature. It has recently (1928) opened co-operative schools at Surat, Poona and Dharwar for giving instruction to rural secretaries, supervisors and bank inspectors. It has several divisional and district branches to carry out its work in the Presidency. Unlike provincial co-operative unions, which are the final federations of all societies, being entrusted with definite duties of audit and supervision and enjoying a definite legal status, the Institute is a body mainly for propaganda. While, however, the Institute is doing excellent propaganda work, 'it has not yet fulfilled to any degree its additional objects of the systematic study of co-operative problems and of contributing expert knowledge and advice on the more specialized sides of the movement.'[1] Whether a co-operative service should be organized by the other co-operative agencies such as the central banks and whether the Institute should in time be federalized as supervising unions develop, are problems for future study and solution. A recent interesting development regarding the progress of non-official co-operative agencies was the establishment, on 1 October 1929, of the All-India Co-operative Institutes' Association, the formation of which was agreed to by the All-India Co-operative Institutes' Conference in Bombay in September 1929. Its main object is to promote and extend co-operation through the member institutes and to furnish advice and assistance to them on all co-operative questions.

Another all-India co-operative organization is the Indian Provincial Co-operative Banks' Association, which has for its object the furtherance of common interests, especially in matters of finance, legislation and administration. The Central Banking Enquiry Com-

[1] See *Annual Report of the Registrar, Bombay* (1926-7).

mittee recommend that the Co-operative Societies Act should be amended so as to provide for the registration of societies of an all-India character, or societies operating in more than one province. If this is done and the working of the two institutions strengthened so as to make them serve as co-ordinating agencies in matters of finance and research, it will not be necessary to set up another all-India body, e.g., an All-India Co-operative Council with administrative or controlling functions as suggested by the foreign banking experts.[1]

18. **A critical estimate of the co-operative movement in India.**— The co-operative movement in India has not indeed succeeded in curing all the economic and social ills from which the country is suffering to-day. On the other hand, it has not been altogether barren of valuable results. In the first place, owing to the cheaper credit made available by co-operative societies, much saving, estimated at about a crore of rupees, has been effected by the agricultural and artisan classes, and it is not unduly optimistic to expect that, in the not-too-distant future, this figure will multiply itself many times over, especially if other forms of co-operative organization intended to provide long-term credit come into existence. Co-operation, moreover, has substituted a system under which credit is controlled and debt restricted, for the moneylender's demoralizing system of dangerously facile credit. In several places, co-operation has successfully undermined the predominant position of the moneylender, and compelled him to bring down his rates of interest. In the matter of debt redemption, although much still remains to be done and it has been rightly doubted whether co-operation of itself would ever be equal to the colossal task of ridding the peasantry entirely of its burden of indebtedness, something has nevertheless been achieved especially by the establishment of Land Mortgage Banks on Co-operative lines (see section 21 below). As Mr. Darling says, the co-operative movement may be regarded as a new form of communal life to protect the peasant from within and without his gates, in the place of the old communal life of the village which prevented the cultivator from being exploited.[2] Further, with the progress of co-operation, the banking habit is slowly but steadily developing in rural and urban areas and the hoards that were lying unused, are gradually coming into fruitful employment. Agriculture, the premier industry of the country, has benefited in a variety of ways by co-operation, which has facilitated the work of the Agricultural Department in

[1] See *Report of the Central Banking Enquiry Committee*, par. 161.

[2] See Darling, op. cit., p. 261.

popularizing improved seed and cattle, cheap manures and implements and, in general, helping the realization of the ideal of 'better farming, better business and better living'. The gradual development of a truly organic connexion between co-operation and agriculture is pregnant with great possibilities.[1] Co-operation has also made important beginnings in dealing with problems of rural sanitation, provision of suitable medical facilities in rural areas, etc.

Societies started for special non-agricultural purposes, though as yet on a small scale, are doing useful work in their respective fields. The condition of factory labourers, depressed classes and employees of all sorts, is being gradually ameliorated under the benign influence of co-operation. Cottage industries, notably the hand-loom industry, are receiving the support and the assistance of the movement. Finally, the co-operative movement has served to counteract the tendency towards rural depopulation in certain parts of the country.

Not the least important of the advantages of co-operation, in the widest sense of the term, are intellectual and moral, and wherever co-operative societies have been started, they have generally not failed to yield these advantages. 'It is difficult to give conclusive evidence of this (moral progress) as the signs of moral progress are too illusive to be pinned down in a statement of facts; but for all that they are unmistakable to close observers of the movement. Litigation and extravagance, drunkenness and gambling are all at a discount in a good co-operative society and in their place will be found industry, self-reliance and straight dealing, education and arbitration societies, thrift, self-help and mutual help' (Darling). The movement has in some cases created a keen desire for education, and even persons fairly advanced in age have been found to seek its benefit. It has also improved the character and the general tone of morality and promoted the development of a feeling of 'all for each and each for all' among the village folk. In short, the co-operative movement bids fair to be a powerful instrument for the revival of the old corporate life of the villages and to restore their vitality.

It must, however, be admitted that all these benefits—moral, educational, as well as purely economic—have been secured only on a very small scale. For example, much yet remains to be attempted and achieved in the field of non-agricultural co-operation. Even agricultural co-operation is practically confined to the sphere of

[1] See Government of India's Resolution on Co-operation, 17 June 1914, par. 7.

credit and here too, as Sir M. Visvesvaraya remarks, 'all that has been done amounts only to a scratching of the surface.'[1] Co-operative credit again has generally prospered only where the monsoon is normal. In precarious tracts, overdue loans and failure to repay are distressingly common.[2] Moreover, as the Central Banking Enquiry Committee point out, the credit provided by the co-operative organization is still much too dear for the cultivator in some provinces and it is necessary to take further steps to effect a reduction in the present rates of interest.

It is also clearly necessary that we should recognize, in order to be able to remedy them, the various defects in the actual working of the co-operative movement in India to-day, such as unpunctuality of payments, fictitious payments, excessive overdues, defective audit, inefficient control, *benam* loans, nepotism, red-tapism, the inelasticity, dilatoriness and inadequacy of co-operative finance etc. The staff appointed to teach members the true principles of co-operation is itself sometimes ignorant, ill-trained and unfit for the work entrusted to it. Managing committees and presidents are too often allowed to usurp all power, to the detriment of the rank and file of the members; and office-holders and leaders of the movement often display 'an undue delicacy and lack of moral courage in dealing with the faults and misdemeanours' of the members, and put up with serious irregularities in the hope that one of the Government officers will come one day and put things right. They show a great dislike 'to incur the unpopularity attendant on stringent action taken against recalcitrants and the recovery by legal process of overdue debts'.[3] Many of the members have come to believe that the co-operative movement is merely a State-managed affair and that it is Government money which they borrow from their society. The failure of many of the members to understand properly the aims and objects of co-operation engenders in them an attitude of apathy and indifference which is fatal to the movement. Many members again take only a mercenary view of their society, regarding it merely as a cheaper substitute for the village moneylender,

[1] Op. cit., p. 185. The Central Banking Enquiry Committee also find that the credit facilities now provided by the co-operative movement to agriculturists cover but a very small proportion of their needs (*Report*, par. 169).

[2] 'If finance is to be provided for these areas on co-operative principles, some kind of guarantee fund might have to be provided for either by the State or by some philanthropic agency in order to safeguard the depositors' money.'—Memorandum submitted to the Bombay Provincial Banking Enquiry Committee by V. S. Bhide, I.C.S., Registrar of Co-operative Societies, Bombay (1929).

[3] See *Agricultural Commission Report*, par. 373; *Report of the Burma Committee* (1928-9), par. 51 and the *Report of the Central Banking Enquiry Committee*, par. 170.

and are thus unable to identify themselves with the movement in the whole-souled manner that is essential for its success.

As we have seen, the co-operative movement in India owes its origin to Government initiative and not to spontaneous action taken by the people themselves, but the fact that it still remains very largely in official leading strings must be regarded as a radical defect, since the essence of co-operation is self-help. The vital principle and the will to live must come from within and not be supplied by some extraneous agency.[1]

The movement is just now passing through a phase of healthy introspection and self-criticism. There is no longer any straining after spectacular triumphs, and solid results are being aimed at more and more. The keynote of the official attitude everywhere has come to be 'consolidation' and 'rectification' rather than 'expansion'. Official booming of the movement in the spirit of a pedlar crying up his wares has happily disappeared and there is instead a genuine desire to find out faults with a view to removing them. Searching inquiries have been carried out with telling effect in the Central Provinces, United Provinces, Madras and Burma; and the Agricultural Commission and the Provincial Banking Committees have recommended similar inquiries into co-operative practice in other provinces. This is all to the good because it is suicidal to ignore or gloss over defects. They must be squarely faced and tackled resolutely. Workers in the movement must not despair of the movement because the results so far have not been commensurate with their enthusiastic expectations. They must keep their faith bright in the gospel of co-operation, which after all has worked such wonders elsewhere, and labour more strenuously than ever to make it a success in this country. For, as the Agricultural Commission remark: 'If co-operation fails, there will fail the best hope of rural India.'[2]

Land Mortgage Banks

19. **The need for land mortgage banks.**—Over a quarter of a century has passed since the inception of the co-operative movement. The experience gained during this long period has compelled the advocates of the movement to moderate their original

[1] 'It [the co-operative movement] has been from the first largely a movement grown under official patronage and guidance. . . . The non-official sponsors have also been largely outsiders. The movement is hardly spontaneous and thus also lacks a balancing force, a corrective from within' (Gadgil, op. cit., p. 249).

[2] *Agricultural Commission Report*, par. 374.

CHAPTER XI

THE STATE IN RELATION TO AGRICULTURE

1. **The evolution of the Agricultural Departments.**—While it has been a matter of controversy whether and how far the State should actively assist the industrial development of the country, the necessity of its concerning itself with the amelioration of the cultivator's position and the improvement of the agricultural system has been definitely recognized by the State for a long time.[1] The idea of improving agriculture by means of a special Government department was first mooted in connexion with the Orissa famine of 1866. It was later on taken up by Lord Mayo's Government, but materialized only in 1884 as a result of the recommendations of the Famine Commission of 1880, and, let us also add, of the representations of the Lancashire cotton industry whose interest in the growth of long staple cotton in India is easily understandable. Agricultural Departments were established in the various provinces under Directors, Deputy Directors, Superintendents and Overseers. Although the earlier idea was to take up agricultural inquiry, famine relief and land improvement, little was done beyond a certain amount of statistical work. Unfortunately the Departments were saddled with a good deal of work not properly belonging to them, for example the work of keeping land records and the supervision of land registration. They were also further handicapped by the meagre grants allotted to them. We have already referred to the visit of Dr. Voelcker in 1889.[2] He held the opinion that Indian agriculture was not so primitive and backward as often alleged, but that it was ill-equipped from the point of view of modern agricultural practice, and he emphasized the value of agricultural education and improvement. The finances of the Department were in the meanwhile improved by the princely donations given by H. Phipps, an American visitor, and Sir David Sassoon. In 1901, an Inspector-General of Agriculture was appointed to advise the Imperial and Provincial Governments. This for the first time gave the Imperial Agricultural Department the services of an expert head in agriculture matters. The post was abolished in 1912 and its duties were entrusted to the Director of the Agricultural Research Institute, Pusa, who was

[1] For more information on this point see J. Mackenna, op. cit.; and *Agricultural Commission Report*, pars. 15-37.

[2] *Ante*, p. 231.

also until recently (1929) the Agricultural Adviser to the Government of India. The Pusa Institute was established in 1903, together with a college for more advanced training and special short practical courses. It was in 1905 that, thanks to the tireless zeal of Lord Curzon, the organization of the Departments was greatly improved, they were relieved of the extra work with which they had been burdened, and larger funds were set apart for the development of agricultural experiments, research, demonstration and instruction. The Agricultural College at Poona was started in 1908 together with a research institute to relieve the congestion in the agricultural classes attached to the Science College, Poona, since 1878. In subsequent years similar colleges were established at Cawnpore, Nagpur, Lyallpur, Coimbatore and Mandalay.

As a result of the rapid extension in recent years of the use of agricultural machinery, especially for irrigation, agricultural engineers have been appointed to advise cultivators and to arrange for the installation of the necessary machinery. Lastly, an all-India Board of Agriculture was founded in 1905 with the object of bringing the provincial Departments more into touch with one another and to discuss at their annual meetings programmes of agricultural work, and make recommendations to the Government of India. The centralized control by the Government of India over provincial Departments has been considerably relaxed as a result of the Reforms, and since 1921, agriculture has become a transferred subject under a minister. The Imperial Department of Agriculture now concerns itself only with agricultural problems of all-India importance, and maintains the following institutions: (i) the Agricultural Research Institute, Pusa; (ii) the Imperial Institute of Veterinary Research, Muktesar; (iii) the Imperial Institutes of Animal Husbandry and Dairying, Bangalore and Wellington; (iv) the Cattle-breeding Farm, Karnal; (v) the Creamery at Anand; (vi) the Imperial Cane-breeding Station, Coimbatore; and (vii) the Sugar Bureau, Pusa, which has recently (April 1931) been transferred to Cawnpore and placed in charge of a Sugar Technologist. The advisory functions of the Agricultural Adviser to the Government of India, who was until recently responsible for the administrative control of these institutions, have been transferred to the whole-time members of the Imperial Council of Agricultural Research, which was established in July 1929, in accordance with the recommendations of the Royal Commission on Agriculture (see Section 8 below). As recommended by the same body, separate directors have now been appointed for the Imperial Institute of Agricultural Research, Pusa, and the Imperial Institute of Veterinary Research, Muktesar. The post of the Agricultural Adviser to the Government of India was

abolished on the retirement of Dr. Clouston in October 1929. The newly constituted Imperial Council of Agricultural Research has also assumed responsibility for the agricultural publications previously edited by the Agricultural Adviser and the Council of the Pusa Research Institute.[1]

To supplement the work of and co-operate with the Agricultural Departments, certain other bodies have been started, e.g., the various District Agricultural Associations. More recently, in Bombay, the Divisional and the Taluka Development Boards, consisting of representatives of the Agricultural and Co-operative Departments and the non-official public, have been established, and serve to co-ordinate the work of the two Departments. In fact, the future policy in the Bombay Presidency is to use both the Co-operative Department and the non-official machinery for the promotion of the work of the Agricultural Department. The Agricultural Commission commend this system as being worthy of study by other provinces.[2]

2. **Functions of the Agricultural Departments.**—The provincial Departments of Agriculture carry on experiment and research on agricultural farms and laboratories, and organize propaganda work to secure the adoption of new methods and improved implements. They also concern themselves with the introduction of new and artificial manures and the production, maintenance and distribution of pure seeds of improved varieties of crops. Demonstrations are conducted on Government farms or fields of cultivators.

In our survey of the principal crops of India, we have already noticed the useful work that has been done by the Agricultural Department, especially with reference to wheat, sugar-cane, groundnut, cotton, tobacco and fodder crops.[3] Jute, potatoes, rice, etc. are some of the other important crops which are engaging the attention of the department. The following table gives the area (British India) in acres under the principal improved varieties.[4]

Crop	1923-4	1927-8	1928-9
Cotton	2,348,882	3,272,638	3,836,052
Wheat	1,398,885	3,517,552	4,124,829
Rice	603,603	953,236	956,225
Jute	210,262	989,105	1,143,665
Sugar-cane ...	50,604	268,688	493,592
Other crops[5] ...	467,146	964,037	1,255,277
Total ...	5,079,382	9,965,256	11,809,630

[1] *Review of Agricultural Operations in India*, p. 8.

[2] *Report*, par. 145. [3] *Ante*, pp. 163-82.

[4] *Review of Agricultural Operations in India* (1928-9), p. 14.

[5] Include groundnuts (519,379), millets (146,436), gram (216,116), potatoes (11,881) etc. in 1928-9.

The above table shows that the area reported to be under improved varieties in the year under review has almost doubled since 1923-4. In 1929-30 the total area under such improved strains exceeded 13,700,000 acres. It has been claimed that taking twelve rupees per acre as the average annual profit made from the adoption of these varieties, the annual value of the agricultural crops of the country has been enhanced by nearly sixteen crores of rupees in 1929-30. This is welcome so far as it goes, but it does not go far enough. The vastness of the ground yet to be covered will be seen when we reflect that, out of the total sown area of seventy-eight million acres under rice, less than one million acres is under high-yielding varieties of paddy, though the position in respect of wheat, cotton and jute is more satisfactory. The relatively satisfactory situation in respect of cotton is due to the work of the Indian Central Cotton Committee which has its own separate finances. This indicates the necessity of creating similar bodies for the improvement of other crops as well. As a matter of fact the Agricultural Commission have emphasized the need for such a committee for jute. We may here refer to the just complaint often made to the effect that the Department has hitherto concentrated its reforming energies on the export crops, to the comparative neglect of non-export crops like jowar, bajra, fruit and vegetables, which are quite as important both from the point of view of food requirements of the population and the profit of the agriculturist.

3. **Demonstrations of new methods and improved implements.**— In addition to the economic work on crops, researches and investigations have been set on foot under departmental auspices bearing on fundamental problems of agricultural chemistry, agricultural bacteriology, plant pathology, mycology and entomology. Among the investigations in progress may be mentioned those dealing with the lime requirements of soils, the reclamation of saline lands, the conservation of soil moisture, the fixation of nitrogen, the manufacture of artificial farmyard manure, the nitrification of manures in the soil, the utilization of the sources of natural indigenous phosphates, the detection of adulterants in ghee, animal nutrition the mosaic disease of sugar-cane, and the control of pests infesting food-grains.[1]

In western countries the great utility and educative value of agricultural shows and exhibitions is well understood and the enormous expenditure on them is regarded as excellent investment. India has only just begun to realize the importance of holding periodical shows. The first Bombay Presidency Agricultural Show held at Poona in October 1926 was the largest ever held in Asia. It

[1] *Review of Agricultural Operations in India* (1927-8), p. 48.

attracted more than 185,000 people of whom about sixty per cent were cultivators. The most attractive and important sections of the show were the Land Improvement Court, the Water Court, the Machinery Section, the Cattle and Poultry Section, Rural Industries and Co-operation. It was intended to organize such shows annually at the various centres in the Presidency and it is understood that some of the other provinces are contemplating the holding of similar shows. Besides holding big shows like that of Poona as frequently as possible, smaller shows for divisions, districts and talukas must also be organized so as to give full recognition to variations in local conditions and needs, and to carry the lessons of the shows to every nook and corner of the country.

The Agricultural Departments are thus doing useful work in various directions and are gradually gaining in knowledge and experience. The progress of agricultural reform, however, has been very slow. This is to be attributed to some extent to red-tapism, and this the Agricultural more than every other Department must endeavour to shake off. More important reasons, however, are the inadequacy of the capital at the command of the agriculturist, the insufficient irrigational facilities and the general ignorance and conservatism of the people. To these must be added the paucity of funds placed at the disposal of the Agricultural Department. The net expenditure of the Imperial and the Provincial Departments of Agriculture amounted, during the year 1927-8, to about Rs. 110½ lakhs only, which works out at about 9 pies per acre of cultivated area and 8 pies per head of the population in British India. Only about 1 per cent of the revenues of the country is spent on the development of its chief and basic industry. The United States of America spends about eleven times as much on its Federal and State Departments of Agriculture as India does and yet only 30 per cent of the American population is engaged on the land. Even Japan with a population of 59 millions spends five times as much as India on agricultural improvement.[1] However, so long as the present financial difficulties last, no expansion in the activities of the Agricultural Department can be expected. What seems only too likely is a drastic curtailment of these activities.

4. **Other items of State aid.**—Other items of State aid may be briefly reviewed.

(i) *Land policy.*—The salient features to be noticed in this connexion are the security of title to the land conferred upon agriculturists and the protection granted to tenants in zemindari areas by special legislation. Among other privileges conferred by the State on the cultivator has been that of freedom of transfer which,

however, as we have seen, has not proved an unmixed blessing. As to land revenue policy this will come under examination in a separate chapter. State assistance in the shape of direct Government construction of irrigation works and the grant of takkavi loans to enable the agriculturist to undertake various permanent improvements on his own behalf have already been discussed.[1]

(ii) *Tariffs.*—One aspect of tariff manipulation, namely, export duties on food-stuffs, raw materials and manures has been discussed and the bearing of the various proposals in this connexion on agricultural prosperity has been made sufficiently clear. As regards import duties, the question has assumed some importance in recent years owing to the competition of Australian wheat in the Indian markets. We have already referred to the Wheat Import Duty Act of 1931, which is intended to give relief to the Indian wheat grower (see p. 166 above). The other important case is that of the Indian Sugar Industry which has already been examined above (p. 171). The refined sugar industry is of sufficient national importance to justify the protective import duties recently (1932) levied as recommended by the Tariff Board.

The part played by the State in the spheres of Credit, Equipment, Co-operation, and Marketing has already received detailed treatment in previous chapters.

(iii) *Education.*—The general principles governing the problem of rural education in its relation to agricultural efficiency have been already indicated.[2] It now remains to give some account of the educational machinery provided by the State.[3]

(*a*) *Agricultural colleges.*—There are at present six colleges established in the different provinces, viz. at Poona, Coimbatore, Nagpur, Cawnpore, Lyallpur and Mandalay. They are intended to train the future personnel of the Agricultural Departments as well as to provide teaching in modern methods for those actually engaged or intending to be engaged in farming, either as landowners or agents. Moreover, they are the provincial centres for scientific research in agriculture. Apart from full degree courses, the colleges also provide short courses of one or two years leading up to a diploma or certificate in agriculture. These courses are meant for practical agriculturists, but incidentally they also afford a recruiting ground for filling up appointments in the subordinate agricultural service.

[1] See also Keatinge, *Rural Economy in the Bombay Deccan,* chap. xiii.

[2] *Ante,* pp. 233-5.

[3] For a detailed account of the system of rural education prevalent in India, see *Agricultural Commission Report,* Minutes of Evidence, vol. I, pp. 114-8, Memorandum of J. A. Richey, Educational Commissioner with the Government of India; *Report,* chap. xv; *Review of Agricultural Operations in India* (1928-9), chap. ix; *India in 1930-31,* pp. 200-4.

A period of post-graduate training at Pusa for all candidates seeking admission to the higher agricultural services is recommended by the Agricultural Commission. They also plead for greater prominence being given to agricultural economics in college courses. In order to encourage agricultural graduates to take to farming, the Punjab Government are contemplating the institution of a system of leasing farms to them on specially easy terms with Government assistance.

(*b*) *Agricultural Middle Schools.*—The agricultural vocational Middle Schools are intended to give special training to the sons of farmers. There are now six such schools in Bombay, where the first school of this type was opened in 1910. Agricultural Middle Schools are, strictly speaking, technical or craft schools providing a course in agriculture of a practical character, and receiving pupils at about the age of thirteen after they have undergone a course of general education. In these schools, education is imparted in the vernacular. The actual object aimed at is to send the pupils back to their land so that they may utilize their training in cultivating it more efficiently, but it is feared that this object is generally not fulfilled. It is also complained that admission to these schools is not sought by agriculturists with any noticeable eagerness, that they are very expensive and are an artificial addition to the educational system and in no way a natural development of it, though Bombay claims that these schools have proved a success. In the words of Richey: 'There does not appear to be any future for the agricultural Middle Schools until the standard of agriculture amongst the parents has been so raised by demonstration and the work of the Agricultural Department that the value of agricultural education is recognized.' Agriculture, as at present conducted, has few attractions for an intelligent, promising boy whose ambition, therefore, turns to other openings and who is reluctant to get stuck in the blind alley of the agricultural Middle School.

(*c*) *Agriculture as a subject in the general curriculum.*—Practical instruction in agriculture is not attempted in the Primary Schools, which are content with providing for simple nature study intended to create a general bias in favour of life in the villages. Rural 'bias' schools are being increasingly recognized to be an important step towards adapting the educational system to the needs of the rural community, and in the Punjab and the United Provinces definite action has been taken to see that teachers are properly trained. Even in the Bombay Presidency a number of schools have recently given an agricultural bias to their curricula.[1]

[1] *Review of Agricultural Operations in India* (1928-9), p. 166 and *India in 1930-31*, p. 202.

The Punjab, instead of starting agricultural Middle Schools like the other provinces, has introduced the teaching of practical agriculture in the vernacular Middle Schools, so as not to debar students taking agriculture from proceeding to a higher stage of education if they desire to do so. Farms are attached to schools where agriculture is taught, and have generally met with considerable success, and the whole scheme is likely to be adopted by other provinces as well. The Agricultural Commission show marked hostility to the Bombay type of school mainly on the ground of disproportionate expense and a strong preference for the Punjab type as pointing to the true solution of the problem of relating the instruction given in Middle Schools in rural areas to their environment. They hope that these schools will develop into rural community centres. As regards High Schools in rural areas, the Commission recommend the addition of a more advanced course in agriculture to their curricula.

The account given above shows that although the Government have done something for agricultural development in this country they can do much more. Nor has the educated community yet learnt properly to appreciate the vital importance of agriculture in India. Social workers have so far devoted exclusive attention to towns and their problems. The work started by some societies like the Servants of India Society in backward rural areas is promising, but it needs to be carried on on a larger scale. In order to ensure continuity of policy and steady pressure over a long period, work done through properly organized societies is preferable to individual effort.[1] Most of the Indian universities have hitherto neglected the study of agricultural economics. This is possibly due, *inter alia*, to our political connexion with England, which is predominantly an industrial country, and our want of touch with progressive agricultural countries in Europe like Holland, Denmark, etc. This may be partially remedied if every university has a special department for translating foreign works on agriculture into English and the vernaculars. The Agricultural Commission point out that there are two directions in which the universities can make themselves useful, firstly, 'in regard to such technical matters as economic surveys of social conditions and, secondly, in imbuing rural communities with ideals of leadership and service.'[2]

5. **Village uplift.**—As the Agricultural Commission truly remark, no substantial improvement in agriculture can be effected unless the cultivator has the will to achieve a better standard of

[1] *Agricultural Commission Report*, par. 425. [2] Ibid., par. 426.

living and the capacity, in terms of mental equipment and of physical health, to take advantage of the opportunities which science, wise laws and good administration may place at his disposal. Of all the factors making for prosperous agriculture, by far the most important is the outlook of the peasant himself. The demand for a better life can be stimulated only by a deliberate and concerted effort to improve the general conditions of the countryside, and the responsibility for initiative in this matter rests with the Government. What is required is an organized and sustained effort by all those Departments whose activities touch the lives and the surroundings of the rural population. The sympathy, interest and active support of the general public are also essential. The whole weight of those who seek to guide the villagers should be thrown into suggestions as to how by corporate action they can improve the amenities of the village. In order, however, that the cultivator should revive the ancient tradition of concerted action for the improvement of the village and its surroundings, enlightened leadership is necessary. One way of providing this is by instilling ideals of village improvement into the thousands of village officials and dignitaries such as the patel and patwari. Another solution is the system of village guides introduced by F. L. Brayne, in the Gurgaon District in the Punjab. 'Sons of cultivators are given a special course of training which, in addition to imbuing them with a sense of the dignity of corporate labour for mutual benefit, is designed to familiarize them with the principles of sanitation, elementary medical aid, co-operation, agricultural improvement, and to give them some knowledge of the simpler home industries, in order that each man, when his training is completed, may act as a "guide, philosopher and friend" to the group of villages to which he is posted. In technical matters, his knowledge is meant to enable him to direct the villagers where to go for advice—rather than to give that advice himself.'[1] The idea is that it would be an advantage to the cultivators to have some *one* reliable individual to look up to instead of a bewildering multiplicity of agencies. He would act as a kind of channel through which the advice of experts in the various departments would pass on to the villagers.

But village guides will require the constant stimulus of new ideas and their work will need to be encouraged and appreciated if they are not to lapse into inactivity. The Gurgaon uplift scheme therefore attempts to supply 'a strong central driving force that will encourage enthusiasm, develop public spirit, and provide

[1] Ibid., par. 423. Mr. Brayne gives an account of the Gurgaon experiment and explains his methods of rural uplift in his books: *The Remaking of Village India, Socrates in an Indian Village* and *Socrates Persists in India.*

suitable material for active workers in their campaign in favour of the improvement of village life. The scheme embraces the work of every department of Government engaged in rural areas; it seeks to assist in securing the adoption of the advice of the expert by a well-planned propaganda campaign; it depends for its success on the enlistment, in the cause, of everyone willing and able to assist, official or non-official, and more especially of the people themselves whose welfare is in the balance. Lecture, song, drama, magic lantern, cinema, and even the loud-speaker are made to contribute what they can to arouse the people to a realization that they themselves are largely responsible for their undesirable condition.'

In his *Rusticus Loquitur* Mr. Darling of the Punjab Indian Civil Service has taken occasion to review Mr. Brayne's work in Gurgaon and make comments, sympathetic in tone, but damaging in substance.[1] The Gurgaon experiment was novel in the sense that 'never before in any part of India was propaganda for village improvement used so intensively and over so wide an area, never before combined with such full use of official authority'. It was eagerly watched by observers interested in the cause of rural welfare, and it was hoped that it would serve as a valuable object-lesson for similar attempts elsewhere. Unfortunately, however, the experiment does not appear to have prospered in the manner that was expected by its originator. One important reason for its failure was that, while the whole programme of improvement was practically forced on the reluctant but docile villager, not all its details had been carefully thought out. Thus, at the instance of Mr. Brayne, the District Board purchased over 600 Hissar bulls to improve the local breed. The animals cost about Rs. 2 lakhs but were found unsatisfactory being 'lazy at their work and too big and heavy for the cows'. This and other ventures of the Board in connexion with Mr. Brayne's welfare campaign left it entirely bankrupt. Again, the village guides who are expected to act as village leaders and guides were 'hurriedly selected', 'insufficiently trained' and 'inadequately supervised', and on account of their extreme youth and ignorance they failed to command any influence with the villagers. Their total cost, however, is over Rs. 20,000 every year. It must further be admitted that sufficient account was not taken of the diversity of local conditions. For example, it was not always remembered that the Persian wheel can work satisfactorily only where the wells are shallow. Again, manure pits were supplied

[1] M. L. Darling, *Rusticus Loquitur*, pp. 121-8, 155-9. See also D. Spencer Hatch, *Up from Poverty*, chap. i and *passim*.

where they were not wanted. The fact was that Mr. Brayne was anxious to achieve something great and to achieve it quickly. Within the short period of his Deputy Commissionership he was determined to cure for ever the squalor of the villages and 'establish a *fait accompli* to the satisfaction of the District and of the world at large'. A superficial and inadequate study of the relevant circumstances of every village to which the reforms were applied, was the necessary consequence. Another cause of the partial collapse of the experiment emphasized by Mr. Darling was that there was too much intensive but crude propaganda and too little real teaching. Propaganda may stampede people into action but it makes all thought or reflection impossible, while teaching in the real sense of the term positively encourages independent thought, and although the resulting change in habits may come slowly, it is surer and more enduring since it proceeds from genuine conviction. The success of the experiment was ephemeral because it relied too much on mere propaganda and on too free a use of official authority. 'In Gurgaon,' says Mr. Darling, 'the peasant was pressed to arm himself against the evils that beset him with weapons for which he had little inclination or strength. Being exceedingly docile he yielded readily enough and did his best to don the whole panoply. As long as pressure remained, he continued to use the arms as best he could, though weighed down by their number and weight. But when it was relaxed, they began slipping from his back. In this country, with a peasantry long accustomed to accept everything from above as an order, and with an army of subordinate officials accustomed more to command than to persuade, almost anything may be achieved by the exertion of official influence, if this is used without stint. But such achievements have no root, for the only sanction behind them is personal authority, which is uncertain in its pressure and changeable in its direction. If it is desired to proceed by order . . . the only satisfactory method is legislation, for the orders can be directly given and permanently enforced; nor are the orders dependent upon the will of an official who may be here today and gone tomorrow. But if a particular remedy or reform is not a case for legislation—and in the sphere of rural reconstruction few are—the only way to get it permanently adopted is to convince people that it is for their good and to make them feel this so strongly that they will apply it themselves. In that case the sanction behind it will be either the individual will or the collective force of public opinion expressed through the village community or, it may be, a co-operative society.'[1]

[1] Op. cit., pp. 156-7.

The Gurgaon experiment may be taken to enforce the following lessons: (1) Before any changes are advocated we must make quite sure that they are really useful and practicable. Grounds of opposition to them, if any, should be fairly and impartially considered.[1] (2) The problem of village improvement cannot be successfully tackled through individual effort. A permanent organization is essential 'to ensure continuity of policy and steady pressure over a long period';[2] to secure a fair hearing for all points of view, and to prevent unduly hasty action. The example of the rural area of Rae Bareli in the United Provinces, where village and district bodies and agencies have been created to foster village uplift is instructive in this connexion. Liability to error[3] is incidental to all human planning. But the mistakes will be fewer and less serious in the case of organizations than in the case of individual enthusiasts. (3) Reform should as far as possible come from persuasion and education rather than by the use of force, open or veiled. (From this point of view the great uses of demonstration villages are obvious.) It should, however, be remembered that resort to compulsion may sometimes be necessary, e.g. to overcome the opposition of a recalcitrant minority. The feeling of compulsion will vanish in course of time as the value of the reform is realized by the people. (4) Mr. Darling's criticisms of the methods adopted by Mr. Brayne are in the main just and sound. But to the unwary reader it is likely to convey the idea that all that can safely be attempted at present is to provide facilities for education and, for the rest, to leave the villager alone. But this smacks too much of *laissez-faire*. The question of rural uplift in India is too urgent to be dealt with on merely passive lines. It is necessary to undertake a definite, well-planned and persistent campaign against the multiple evils afflicting the countryside, if substantial progress is to be achieved within a reasonably short time.[4]

Another Punjab experiment which the Agricultural Commission regard as worthy of imitation elsewhere is the rural community movement. There is a Central Rural Community Board composed mainly of officials. This is linked with a Rural Community Council which is established in each district and which consists predominantly of non-officials. Representatives of the different departments concerned with rural development, namely, Educational, Agricultural, Veterinary and Co-operative, assist each council in its work. The councils endeavour to co-ordinate the propaganda

[1] *Ante*, pp. 237-8.
[2] *Ante*, p. 352.
[3] See S. S. Nehru, I.C.S., *Caste and Credit*, chap. v.
[4] See Hatch, op. cit., chap. ii.

work of all the Development Departments. They are financed by the Central Rural Community Board which is in turn financed by Government. The characteristic of the Punjab movement for rural uplift is the comprehensiveness of its scope and its concentration of effort.[1] In order to secure an even more effective co-ordination than has been aimed at in the Punjab, Mr. Howard suggests the establishment of a single agency to be called the Development Board of Rural Reconstruction for undertaking rural uplift work. This agency should represent an immediate combination of the Agricultural and Veterinary Departments, the co-operative credit movement and the portion of the Educational Department which deals with Primary Schools. It should at first 'establish the closest possible liaison with all other organizations which deal with the countryside, namely, those concerned with the distribution of irrigation water and with roads, markets and rural sanitation. How rapidly these agencies will have to be absorbed is a matter for the future.'[2]

6. **Royal Commission on Agriculture.**—The Royal Commission appointed in April 1926 was the first commission appointed specifically to examine and report on the conditions of agricultural and rural economy in India. Its recommendations (embodied in a comprehensive *Report* which was issued in July 1928) on a variety of questions affecting the welfare of the rural community in India have already been dealt with in their proper places. The labours of the Commission have led to a general revival of interest in agriculture and a fuller realization of its supreme importance to India. The *Report* has also done useful service in recording in one place the measures already initiated in the different provinces for tackling problems of rural uplift. Hitherto, the provinces have generally been content to plough their lonely furrows without much of mutual help, knowledge or consultation. The *Report* should induce greater co-operation among them and a greater desire to learn from each other.

In order that any useful practical results should be reaped from the work of the Commission, each province will have to undertake a special investigation into its own conditions in the light of the Commission's recommendations, which are necessarily very general in character. Disappointment might also be avoided by not expecting too quick results. The process of implementing the recommendations of the Commission will inevitably be slow and difficult, and all the resources of the Government and the community

[1] See *Agricultural Commission Report*, pars. 421-8.
[2] A. Howard, *Indian Agriculture*, p. 84.

will have to be patiently mobilized for many years to come before rural India can hope to turn her back on the deep shadows and emerge smiling and prosperous into the radiant light of day.

7. **Government action on the *Report*: the Simla Conference.**—At the Agricultural Conference consisting of provincial representatives (Ministers of Agriculture, Directors of Agriculture, Registrars of Co-operative Societies, etc.) which met at Simla in October 1928, the main recommendations made by the Commission were discussed, the action already taken by the various provinces in respect of some of the recommendations was ascertained, and emphasis was laid upon the financial implications of the Commission's proposals which made immediate or simultaneous adoption of them impossible. The Commission's *Report* was accepted as the basis for rural reconstruction and agricultural advance and for the progressive application of the recommendations as the circumstances of each province might permit. The recommendation regarding the Imperial Research Council to be set up and financed by the Central Government was approved of in general terms.[1]

8. **Organization of agricultural research.**—As the Agricultural Commission truly remark, the basis of all agricultural progress is experiment. 'However efficient the organization which is built up for demonstration and propaganda, unless that organization is based on the solid foundations provided by research, it is merely a house built on sand.' Government have already taken steps to give effect, with modifications in some respects, to the recommendations of the Commission in this connexion. An all-India council of agricultural research (called the Imperial Council of Agricultural Research) has been created (July 1929) and registered as a society under the Registration of Societies Act (1860), a step which gives it a considerable measure of financial independence. Its primary function will be to promote, guide and co-ordinate agricultural research throughout India. It will be a body to which the Imperial and provincial Departments of Agriculture can look for guidance (without being subjected to any administrative control) in all matters connected with research, and to which such research programmes as they might choose will be submitted for approval. It will also act as a clearing-house of information in regard to agricultural and veterinary matters, and serve to link research work in India with that in other parts of the Empire and in foreign countries. It will further make arrangements for the training of research workers.[2] This central body is split up into two parts: the first, a

[1] See ibid., pp. 3-4.

[2] Memorandum of Association of the Imperial Council (Society) of Agricultural Research.

Governing Body presided over by the Member of the Viceroy's Executive Council concerned, and consisting of the provincial Ministers of Agriculture, three representatives of the Indian Legislature, two representatives of commercial interests, two members elected by the Advisory Board (see below) and a whole-time Vice-chairman who is the principal administrative officer of the Council; and the second, an Advisory Board, this latter body having as its work the examination of proposals in connexion with scientific objects. The Board has as its chairman the principal administrative officer of the Council, and as its members, two whole-time officers, one agricultural and the other veterinary, and a number of nominated and elected scientific members, such as provincial heads of the Agricultural and Veterinary Departments, including those in such of the Indian States as have elected to join, together with representatives of the Indian universities, of the Indian Central Cotton Committee, of the co-operative societies and a few other members. The Governor-General in Council has the right to nominate additional members both to the Governing Body and the Advisory Board when need arises. This power has already been utilized to give representation to the State of Hyderabad (which joined the Council in 1929) the Railway Board, and the Army Veterinary Department. The Council, that is, the Governing Body and the Advisory Board sitting together, met in June 1929 to settle certain preliminary matters and formally registered itself as a society under the Registration of Societies Act. The Advisory Board is to meet twice a year, and in a different place each time, and thus visit all the provinces in turn. The actual business of the Board will of course be continuous throughout the year. But since it comprises as many as forty-six members, its duties will largely be carried on by special committees. One such committee already at work is the Sugar Committee.[1] Two sub-committees of the Advisory Board have been constituted to deal with the locust problem and to investigate the problems relating to the conservation of the indigenous manurial resources and the development of the use of indigenous fertilizers and the preparation of a programme of research on fertilizers.[2] The chairman and the secretary of the Board are, *ex officio*, chairman and secretary respectively of each committee. The Advisory Board reviews all the schemes of research submitted by provincial Governments, universities or private institutions for its consideration and decides which ought to be taken up, how to deal with each problem, and in what part of India the special work

[1] The work of this committee has already been referred to on p. 170 above.
[2] See *India in 1930-31*, pp. 205-7 and the *Indian Year Book* (1932), pp. 281-3.

upon it can best be done. The decisions of the Advisory Board are subject to the decisions and sanction of the Governing Body and the views of the Society as a whole. It is the Governing Body which has control of the Council's funds. The central headquarters in Simla have been linked up with the new Imperial Agricultural Bureau, whose object is to keep research workers in all parts of the British Empire in touch with the latest research work in their own subject. For instance, there is a bureau at Rothamstead where scientific work specially connected with soils is done. There is another one at Cambridge where the special subject is plant genetics. The Indian Society pays a small subscription towards the upkeep of the bureaux and has a representative on their controlling body. Among the early steps to be taken by the Governing Body in India is the arrangement of post-graduate scholarships for training research workers. The Governing Body has also started a research and reference library at Delhi. Among the problems to which attention will be given in the near future are those connected with rice research, the problem of the world demand for Indian hemp and the insufficiency of its supply, the question of linking up the universities with agricultural research, etc.

The Agricultural Commission recommended an initial endowment fund of Rs. 50 lakhs for the Agricultural Research Council, but in place of this, the Government of India announced that they had decided to substitute an initial lump grant of Rs. 25 lakhs and to supplement this with an additional voted endowment of Rs. 5 lakhs a year. The Budget estimate for 1929-30 made a provision of Rs. 16·4 lakhs for agricultural research, of which only Rs. 1·4 lakhs represents recurrent expenditure, and Rs. 15 lakhs represents the initial grant towards a total endowment fund of Rs. 25 lakhs; the remaining Rs. 10 lakhs was supplied in 1930-1. Normal recurrent charges on account of the staff are estimated to amount to Rs. 2·25 lakhs, and when the full scheme is set going the normal recurring charge will be Rs. 7·25 lakhs as against the provision of Rs. 16·4 lakhs made in 1929-30.[1] Owing to financial stringency the annual research grant of Rs. 5 lakhs for the year 1932-3 has been suspended.

As recommended by the Commission, Provincial Research Committees have been formed by all the provinces. These are to work in co-operation with the Imperial Council of Agricultural Research and report on any applications from within the province for a grant by the Research Council. Such Committees have a

[1] See the speech of the Finance Member introducing the Budget for 1929-30, par. 36.

most important sphere of action in promoting and co-ordinating research directed to rural improvement within the province.[1] Several provinces, universities etc. have already sent in research schemes asking for grants to execute them. These have been considered and grants sanctioned in some cases by the Governing Body of the Council.

The Commission consider their recommendation regarding the organization of research as the most important among their positive proposals. And Government have done well in not losing much time in taking definite steps towards the fulfilment of the recommendation. In order to reap the fullest advantage from the research machinery, it is evident that the greatest care is necessary in the selection of a competent personnel for carrying on the work of research, and no ground should be given for the fear expressed by some critics that the adoption of the Commission's recommendations will merely lead to a multiplication of posts carrying extravagant salaries and involving the importation of European 'experts' who are no experts. While we should cast our net as wide as possible and bring under contribution the best trained brains and the highest expert ability wherever we can find them, every facility should be provided for training Indians in the methods of modern research and entrusting them with responsible work. We believe that, given a fair opportunity, Indians are fully capable of giving a good account of themselves in research. This is a matter which will require the careful attention and the utmost vigilance on the part of the Legislatures and the intelligent public.

[1] *Review of Agricultural Operations in India* (1928-9), pp. 8-9.

CHAPTER XII

LAND REVENUE

1. **Historical survey of land revenue in India.**—From very ancient times the State in India has claimed a share of the produce of the soil from the cultivators. The Laws of Manu mention one-sixth of the gross produce, that is, of the grain heap on the threshing floor, as the legitimate share of the king, though the proportion might rise to one-fourth in times of war and other emergencies. The plan of fixing a certain share of the gross produce offered many advantages in an early stage of society. Whatever the land produced was heaped on the threshing floor, and in the presence of the king's officer the share of the State was abstracted from the heap. The demand of the State varied automatically with the outturn, and no elaborate system of suspensions and remissions of the revenue was necessary. But the disadvantages of the plan are equally obvious. With the growth of population and extension of cultivation, the task of collecting land revenue in kind becomes increasingly difficult. Unless a large staff of officers is employed to supervise the division, the cultivators will conceal or make away with the grain, or local collectors will batten on it at the expense of the cultivator and the State. The grain may lie rotting on the threshing floor as the officer of the king may not come for a long time to supervise the division. These disadvantages sooner or later compel the adoption of alternative methods of collection. For instance, an estimate of the standing crops may be made and the share of the State fixed accordingly, irrespective of the actual outturn realized at the harvest, which may or may not agree with the estimate. This and other similar devices gave place eventually to payment in money—a development hastened by the rapid expansion of some of the Mohammedan kingdoms which rendered collection in kind under the old system unworkable.[1]

The Institutes of Timur represented the first systematic attempt in the direction of commuting the State's share of the produce into money. The next attempt was made by Sher Shah (1540-5), but his labours remained uncompleted owing to the shortness of his reign. The third and the most famous settlement was made under Akbar by his able finance minister, Todar Mal. A more scientific and detailed system of investigation into the taxable capacity of different

[1] See *Taxation Enquiry Committee Report*, par. 53.

soils was undertaken as a necessary preliminary to the fixation of the revenue demand. Land was carefully measured and divided into four classes representing different grades of fertility. The Government share was fixed at one-third of the gross produce. Option to pay in cash based on the average prices of food-grains during nineteen years preceding the settlement was given, and the term of the settlement was fixed at nine years.

Thus the Moguls did not introduce any fundamental changes in the ancient revenue system of the Hindus, but merely reduced the customary and unwritten usages of the Hindu administration to a coherent system. They are, however, to be credited with the introduction of regular records and revenue accounts for the purpose of gaining some definite knowledge about the financial resources of the State. In the Deccan, similar developments took place, notably under Malik Amber of Ahmednagar, who established certain revenue rates called the *ain* ('the thing itself') or essential rates, being one-third of the cash value of the gross produce.[1] The Marathas accepted these rates as the basis of their system, raising them to what they called the *kamal*, that is, maximum or perfect rates payable only by the best lands. In the majority of cases, the assessment was not permanent, but in the Deccan, 'the *miras*[2] tenure had fixed assessment as one of its incidents. The mirasdar held his land on permanent heritable tenure subject to the payment of a fixed assessment, which he was liable to pay whether the land was cultivated or not.'[3] In many cases the actual assessment was further enhanced by the levy of a number of cesses. This development was found to have taken place all over India, wherever the authority of the Central Government had declined. The proportion of the cesses to the standard assessment ranged between thirty-three and fifty per cent in some cases, as in Bengal, according to the calculation of Sir John Shore.[4]

The next most important feature in the history of land revenue and tenure is the appearance of revenue farming, a factor of great

[1] Keatinge, contrasting Malik Amber's system with that of Akbar points out that, while the assessment which he aimed at was similiar to that of Akbar, his ideas of land tenure were different. His object was to attach the cultivator to the soil; and with this object he made much of the land the private property of the cultivators, attaching to the proprietary right the power of sale, and granting other lands as the joint property of the village community (*Rural Economy in the Bombay Deccan*, pp. 2-3).

[2] Under the Marathas, there was also a well-defined tenure called *upri*. The *upri* was a tenant-at-will of the Government liable to enhancement of assessment and at liberty to take as much land every year as he wished to cultivate. He paid assessment according to the crop he obtained.

[3] Keatinge, op. cit., p. 3.

[4] See *Taxation Enquiry Committee Report*, loc. cit.

significance in the development of the local system of land tenure in more than one province. The institution was designed to ensure a steady flow of income into the treasury of the central Government, which in the declining days of the Mogul Empire became more and more incapable of controlling the revenue officials in the outlying parts of the empire. No precise date can be assigned to the advent of this system, but it became fairly general in Bengal from the reign of Emperor Farukhsiyar (A. D. 1713). Under this system the revenue farmer paid Government nine-tenths of the whole collection and kept the rest as his remuneration. But later on a further stage of degeneration was reached, when the right of collecting land revenue for a pargana or district was sold by public auction to the highest bidders, who were held responsible for payment of the amount thus fixed in one lump sum into the Government treasury, retaining for themselves any surplus over it. In some cases, the Hindu chieftains or rajahs subdued by Mogul arms were made revenue farmers under Imperial warrant. Although at first the office of the revenue farmer was not hereditary and was subject to the supervision of the State officials, it tended to become hereditary as the control of the central authority relaxed. The revenue farmer gradually consolidated his position by taking full advantage of the political disorganization and of the special opportunities for self-aggrandizement which it held out to him. He pretended to be proprietor of his charge by first of all cultivating the large waste area in addition to his own (*sir*) land, and later on by buying out small neighbouring cultivators by fair means or foul. It thus resulted that by the time of Lord Cornwallis the revenue farmers had evolved into a powerful body hardly distinguishable from full proprietors. As Roberts puts it in his *Historical Geography of India*, 'the zemindari[1] which was originally a hereditary contract agency for the collection of revenue became something resembling a landlord estate.' The general dislocation in administration during the later years of Mogul rule and the chronic financial embarrassment of Government made the position of the revenue farmers stronger and stronger, as they were the only source of ready money for Government to draw upon. The official organization for controlling land revenue administration having disappeared, the revenue farmers' operations were entirely unchecked, and the Government was so demoralized that it had neither the power nor the desire to mitigate the oppression and extortion of the villagers at their hands.

[1] All revenue farmers irrespective of their origin were called zemindars and sometimes talukdars—terms which did not necessarily imply any definite proprietary right in the land.

Revenue farming, at first confined to the Mogul Empire and more particularly to the province of Bengal, soon extended to other parts of the country for similar reasons, and even the Marathas, whose revenue system under Nana Farnavis during the latter half of the eighteenth century was universally recognized to be extraordinarily efficient and equitable, adopted it under the incompetent rule of the last Peshwa soon after the death of Nana Farnavis. It must be noted, however, that though the system thus came to be widespread, its effects were not uniform. In northern India, where it was introduced earlier and where the central authority weakened faster, they were more complete and lasting, as shown by the growth of the zemindari rights in Bengal. In other cases no permanent traces were left, as for example in the Deccan, except in the outlying districts of the Konkan where the Khots who were at one time revenue farmers acquired landlord rights. Midway between the two extremes, as in the United Provinces, the revenue farmers succeeded in acquiring only certain overlord rights. The same was more or less the case in the Punjab. The net result of revenue farming and of the general disorder characterizing the revenue administration was seen in the increasing complexity of land tenures and rights and the steady departure from former revenue practices, such as a regular survey and assessment which had been prevalent since the days of Akbar. All this made the task of the new British administrators very difficult in the absence of any rational plan of administering the land revenue. It was quite natural, therefore, that mistakes were made in the beginning, and many years had to pass before a tolerable system was evolved for the various provinces.

2. **Three kinds of land tenures.**[1]—Apart from the intrinsic interest of the subject of land tenures, it is necessary to understand it properly, because without a complete knowledge of land tenures, the systems of revenue settlements prevalent in different provinces can scarcely become intelligible. The type of tenure, that is, the way in which land is held, determines, for instance, the person or persons responsible for the payment of the land revenue, that is, the form of settlement, the various gradations of interest and rights in land, their recognition and interrelation and the nature of the unit of assessment adopted.

'The system of land tenure in India exhibits almost every conceivable variation, from immense estates, containing thousands of tenants, to minute holdings of well under an acre in size. It is

[1] For a good deal of the purely descriptive part of this chapter, we are indebted to B. H. Baden-Powell, *Land-Systems of British India*, and also to his *Land-Revenue and Tenure in British India*.

nevertheless possible to classify the holdings into certain fairly well-defined groups.'[1] The following are the three main types of land tenure in India. (i) First, we have the various forms of landlord tenure, where one person or at the most a few joint owners are made responsible in one sum for land revenue on the whole estate, as in Bengal. (ii) Secondly, there are the smaller estates, essentially of the same character as the first, but with certain distinguishing features. They are village estates which are held by co-sharing bodies or village communities, the members of which are treated as jointly and severally liable for the land revenue. We have here to deal with a collective or ideal landlord. (iii) Lastly, land may be held in single independent holdings owned severally, though aggregated locally in villages, the individual holders being severally responsible for the payment of the land revenue. These three kinds of tenure are called (i) zemindari, (ii) joint village (village community) or mahalwari, and (iii) rayatwari, respectively.

3. **Two main forms of village constitution.**[2]—We have already discussed the general causes explaining the origin of the mode of settlement known as the village.[3] We have also given some account of the main features of a typical village, such as the presence of certain village officers, artisans and menials, etc., in a generalized description applicable to most villages in India. It is now necessary to emphasize the distinction between villages in India as regards their internal constitution, a factor which has an important bearing on the nature of the land tenure, and, through the land tenure, on the form of the revenue settlement. There are two distinct types of villages in India, namely, the rayatwari or severalty and the landlord or joint village, the latter being further subdivided into a number of interesting minor varieties.[4]

(i) *The rayatwari village.*—The internal constitution of the rayatwari village is comparatively simple. Land is owned and cultivated separately by the various owners, each of whom may have inherited or bought his holding, or cleared it from the original jungle. The aggregate of these separate cultivators, owners and their holdings makes up the rayatwari village. The waste land of the village is the property of Government, though it may be used by the villagers for grazing, wood-cutting, etc. Land revenue is assessed on each separate holding and the responsibility for its

[1] See *India in 1930-31*, p. 169.

[2] For the interesting but controversial question of the origin and of the forms of the village in India, see Baden-Powell, *Land-Revenue and Tenure in British India*, pp. 88-90.

[3] *Ante*, pp. 120-2.

[4] See Baden-Powell, *Land-Systems of British India*, vol. I, chap. iv.

payment is individual. Apart from subjection to common village officials and the common enjoyment of the services of the village artisans and menials, there are no further points of contact among the villagers. It follows from all this that the importance of the headman or patel and, in general, of the village officials is greater in the rayatwari village than in the landlord village. This form of village is universal in Madras, Bombay, Berar and Central India, and was also prevalent in Central Provinces and Bengal before the super-imposition of malguzari and zemindari rights respectively.

(ii) *The landlord or joint village.*—The landlord village, so called, may be owned by a single individual landlord or a body of co-sharers who may represent a group of ancestrally connected families claiming to be regarded collectively as the landlord of the village as already existing, or as established by their own foundation, but in either case the village is treated as a single unit. The individual or the collective landlord has pretensions to be of higher caste than and superior title to the other cultivating tenants, though sometimes the co-sharers may themselves cultivate the estate. The waste land of the village is the property of the village community as a whole, so that it may be rented to tenants and the rents divided among the members of the community, or it may be partitioned or brought under cultivation without the leave of Government. The whole estate is assessed to one sum of land revenue for which the whole body of co-sharers are jointly and severally responsible, although special exemption from joint responsibility may be secured and the individual share of land revenue may be separated out by a particular co-sharer with the permission of Government. The common affairs of the village were originally managed by panchayats or representative bodies consisting of the leading co-sharing families. Strictly speaking, there is no single village headman, although an individual may be selected as the lambardar to represent the village community in its dealings with Government, especially in connexion with land revenue settlement. This type of village is particularly strongly developed in the Punjab and is mostly connected with Mohammedan ideas as contradistinguished from the rayatwari village, which is associated with Hindu government and Hindu ideas. It is also found among the Jat, Gujar and other tribes in the central Punjab, as well as among the conquering Aryan tribes and descendants of chiefs and nobles in other parts.

Constitution and types of joint or landlord villages.—Turning to further details of the internal constitution of such villages, we may refer to three distinct varieties depending on the principle according to which the co-sharers allot the land or the profits and produce of

the land. (i) First of all we have the ancestral villages,[1] where there is the ancestral or family share system under which each member of the co-sharing body takes the fraction of the whole which his place on the genealogical tree points out. There are the following types of ancestral villages: (*a*) villages held by a joint body undivided as in the case of a joint undivided family, (*b*) those divided under the ancestral share system (pattidari), and (*c*) those partially divided on the ancestral system (imperfect pattidari). (ii) Secondly, there are non-ancestral villages where there are special customary systems of sharing under the true *bhaiachara*[2] principles of (*a*) sharing in equal lots made up artificially of various strips of land, (*b*) sharing by ploughs in which land is assigned according to the number of ploughs owned, or (*c*) with reference to shares in water, or (*d*) shares in wells. In all these cases, however, allotments are still regarded as shares of a jointly owned whole. (iii) Thirdly, there is the system of *de facto* holdings where there is no specific rule of sharing, and the existing holdings are recognized as such. This may have been derived from the breakdown of an original family system, for instance, in villages once pattidari, but where, owing to the changes and chances of time and the effects of heavy revenue burdens, the old share system was upset and the principle of *de facto* holdings was, therefore, accepted, or it may be a custom that always existed under which *de facto* holdings have been recognized from the very beginning.

In the ancestral villages, the revenue burden is proportioned to the fractional share in the estate, more or less nearly and in principle, while in the case of the non-ancestral forms, the revenue burden is proportioned to the actual holdings according to the *bhaiachara* or *de facto* holding principle.

These three different rules of sharing must be regarded as being the outcome of one or other of the three possible ways in which all joint or landlord villages have been formed, namely, (i) they were either bodies who have jointly succeeded to a village at first held by one common ancestor, who in his turn may have been either a founder, or a grantee, or a revenue farmer, or again a ruling chief reduced to the position of a landlord as in the United Provinces, or (ii) they are bodies made up of a certain number of families belonging to an immigrating or conquering clan which allotted the area according to its customary methods, or (iii) they are merely

[1] Among the ancestral villages are also included single landlord villages where, however, the question of allotment of land or shares does not arise.

[2] The term *bhaiachara* is officially used in a more general sense and covers all variations of the non-ancestral landlord villages.

co-operative colonizing groups formed under circumstances which led them to establish cultivation on the joint-stock principle.

It may be noted here that over the village landlord bodies a superior overlordship may occasionally arise as in the case of the Oudh and Agra talukdars, who are overlords over a number of village communities. The latter, however, retain the same essential principles as in the case of independent village communities. The origin of these overlord rights is similar to that of the independent landlord villages themselves.

5. **Landlord estates including more than one village estate.**—Some landlord estates extend over a larger area than a village, perhaps a whole district or pargana, although the component villages even here do not lose all their importance. The origin of these bigger landlord estates does not present any special features and is accounted for as in the case of village estates. The present landholder may be a descendant of a former territorial chief or ruler, or of a revenue farmer or other land official, or of a grantee of the State, jagirdar or inamdar. The larger size of the estate in this case is merely due to the fact that the lordship started from a source of higher rank or was more directly connected with the ruling power. Such landlord estates owned by zemindars exist on a large scale in Bengal, and in Oudh and Agra to some extent, where we have the talukdar class. They are quite exceptional in the Punjab. In the Central Provinces, the estates of the special class of landlords called malguzars occupy a very large proportion of the total area of the province, but they are not landlords in the Bengal sense. In Bombay, there is a variety of landlord estates. Apart from the class of jagirdars and inamdars, there are the Gujarat talukdars and Khots on the west coast of the Deccan coming under this category. In Madras, especially in the northern part, there are several great zemindars of the Bengal type.

This survey of the (proprietary) land tenures in India brings out the enormous complexity and great variety of forms that have been developed as the result of several historical factors, such as wars and invasions, tribal and local conquests, the rise and fall of ruling families and so on. To the right by first clearing, which must have been originally of primary importance, has been super-added the right by conquest, grant or natural superiority, etc.

6. **Sub-proprietary and tenant rights.**—In this process of superimposition of rights one upon another as the result of conquest, grant, or revenue farming, as new overlord rights may be created so also original proprietary rights may degenerate into sub-proprietary or tenant rights. In some cases, the ex-proprietors were able to maintain a privileged position even under an overlord and

the recognition of the person at the head as the proprietor made the recognition of others below also necessary. The confusion that characterized landed rights, especially the large number of grades of landed rights, made the recognition of these rights very difficult.

In the rayatwari tracts, the question was very simple in the absence of any considerable overgrowth of rights. In most cases the cultivator was also the landlord. Where tenants were employed there was no doubt that they were ordinary contract tenants created by the owner and, therefore, not requiring any legal recognition. In a few cases at the most, there might be a loose overlord right which could be sufficiently provided for by the payment of a fixed rent charge by the actual proprietor. But in the zemindari tracts and the joint village estates, the position was much more complex, a number of intermediate grades having come into existence. Baden-Powell gives the following table to illustrate the various interests that may intervene between the Government, with their revenue rights and their occasional direct ownership of land, as the fountain head of rights at the top, and the actual cultivator, wherever he has any permanent right to occupation, at the bottom.[1]

One interest	Two interests	Three interests	Four interests	
1. The Government is the sole proprietor.	1. Government 2. The ryot or 'occupant' with a defined title (not a tenant) as in Madras, Bombay, Berar, etc.	1. Government 2. A landlord (zemindar, talukdar or a joint village body regarded as a whole) 3. The actual cultivating holders, individual co-sharers, etc.	1. Government 2. Landlord 3. Sub-proprietors, or tenure-holders 4. The ryot or actual cultivator	1. Government 2 An overlord or superior landlord 3. An actual proprietor or landlord (usually a village body) 4. The actual cultivating holders, individual co-sharers etc.

(i) *Sub-proprietary rights.*—The main characteristic of the sub-proprietary tenure is that the holder is the owner in full as regards his particular holding but has no part in the whole estate or its profits and no voice in its management. The illustrations of this category are found in Bengal, where certain persons known as tenure-holders, have been granted a privileged status of permanent,

[1] See Baden-Powell, *Land-Revenue and Tenure in British India,* p. 129. Cf. 'In one estate in Bakarganj there are as many as thirty intermediate (between the proprietor and the cultivator) tenures one under another' (*Report of the Bengal Provincial Banking Enquiry Committee,* par. 17).

heritable and transferable tenure held at fixed payment, because they were able to maintain such a position in spite of the general predominance of the zemindar class. The difficulty of defining their status led subsequently to the adoption of the rule, made under the Act of 1885, that all those persons below the zemindar owning one hundred bighas of land were entitled to the status of a tenure-holder.

Another modern instance of such rights is provided by the class of pattidars who were given a permanent managing lease for a part of the estate by the zemindars who found their estates too unwieldy and were desirous of sharing their revenue responsibility with others. The pattidars in their turn often created tenants called dirpattidars endowed with similar privileges and charged with parallel revenue responsibilities. Such rights were recognized by the Bengal Regulation of 1819.

Another class of sub-proprietors is found in those cases where the present proprietary landlord body has grown over an earlier group; certain families would be able to maintain their position paying only Government assessment and no rent to the superior landlord in respect of their holdings. In the Central Provinces, the artificial creation of the malguzars, under the influence of the earlier policy followed in upper India, of fixing revenue responsibility on one landlord for each village, even when originally rayatwari in character, necessitated the recognition of sub-proprietary rights. Lastly, in Oudh, occasionally entire village bodies were able to preserve their rights of independent management subject to the payment of a fixed rent to the overlord talukdar. Their sub-proprietary rights have been recognized by a separate sub-settlement with them fixing their rent payment to the talukdar with whom the main settlement is effected by Government.

(ii) *Tenant-rights.*[1]—We may now proceed to deal with tenant rights, not of the ordinary contract tenants, but of those holding some privileged position. First we shall concentrate on a description of the features common to all the provinces without entering into minute details relating to every particular province The same general features that account for the rise of the landlord and overlord rights explain the existence of tenant rights of different grades. Those who are now classed as tenants in the case of landlord estates, joint or individual, must at one time have enjoyed a superior status. The more complete the landlord or the overlord rights and the greater the opportunities and time at the disposal

[1] See Baden-Powell, op. cit., chap. vii, section 5, and *Taxation Enquiry Committee Report,* par. 60.

of persons acquiring these rights, the more will the lower grades sink in point of their status. Thus different grades of tenant rights would arise depending on the strength of the pressure exerted from above. There were two difficulties regarding the recognition and definition of these tenant rights by the British administration; one was that not in all cases was direct proof obtainable of a former superior status enjoyed by the tenants; and the second difficulty was that, besides persons entitled to recognition on the ground of a former proprietary status, were also other tenants who were in a sense a privileged class, because they were brought in by the landlords on a contract basis, but at a time when tenants were too valuable to be ejected. The result was that a distinction between natural and artificial tenants had to be adopted. The natural tenants were those in whose favour definite facts could be asserted and proved; the artificial tenants were those who were not able to adduce any definite proof of the circumstances and origin of their tenant rights. To meet the case of the artificial tenants, the twelve-year rule was adopted in Bengal, Agra, and, to a limited extent, in the Central Provinces. In Bengal and Agra, the Tenancy Act of 1859 provided for the recognition of a tenant as occupancy tenant, if he had cultivated the same land continuously for twelve years. The Act was, however, evaded by landlords who made it impossible for any tenant to hold the same piece of land continuously for the required period and it was, therefore, amended in Bengal in 1885. Cultivation was now required, not necessarily of the same piece of land, but of some land in the same village continuously for twelve years. In Agra, the Act was not formally amended in this way, but a number of restrictions were imposed by an Act passed in 1901, so as to prevent the landlord from defeating the provisions of the law.[1] In Oudh, occupancy rights, at first limited under the Act of 1886 to tenants who, having once enjoyed proprietary rights had lost them, were extended subsequently to ex-proprietors whose proprietary rights were transferred by sale or execution. In the Punjab, the right of occupancy can be acquired only by tenants whose claims are based on certain historical grounds and not by mere lapse of time. The Punjab Act of 1887 defines occupancy tenants as those who, for two generations, have paid neither rent nor services to the proprietor, but only their share of Government assessment. In the Central Provinces also, the twelve-year rule was applied at first, but later on it was given up in favour of an arrangement which allowed purchase of occupancy right at two and a half times

[1] For further particulars regarding rent legislation in Agra and Oudh, see the *Report of the United Provinces Banking Enquiry Committee*, pars. 327-8.

the annual rental. This in its turn was superseded by another rule framed in 1920 which recognized two classes of occupancy tenants, both having transferable rights subject to certain conditions. In the zemindari estates in Madras every ryot who possessed rayati land (that is, land which is not the home farm or the *sir* land of the proprietor) at the time of the passing of the Estates Land Act of 1908 (modelled on the Bengal Act of 1885), and every ryot admitted by the landlord to the possession of rayati land, has a permanent right of occupancy. His position has thus been assimilated to that of the occupant in rayatwari areas. In Bombay, the special Act of 1880 dealing with the khots protected the old residential tenants in the same manner as occupancy tenants elsewhere. There are also other cases of special tenure, such as the talukdari tenure, which are dealt with under the Special Act of 1862.

7. **Other than occupancy tenants.**—We have devoted so much attention mainly to occupancy tenants for the reason that they constitute by far the most important class of privileged tenants in landlord areas. It is necessary, however, to add that there are several other classes of tenants occupying a status in some cases higher and in others lower than occupancy tenants. By way of illustration, we may refer to the superior class of tenants in Bengal known as tenure-holders and already mentioned above, and ryots at fixed rates who can neither be ejected nor made liable to enhancement of rent. Similarly, in the United Provinces, in the permanently-settled districts of Benares, there are certain tenants at fixed rates. Again, in the Central Provinces, we have the class of 'absolute occupancy tenants' recognized at the first settlement as holding an exceptionally strong position. These cannot be ejected practically for any reason whatever. They pay a privileged rent which, moreover, is fixed by the Settlement Officer for the whole term of the settlement. On the other hand, there are certain inferior tenants comparable to the tenants-at-will in rayatwari areas but enjoying a certain amount of protection not available to the latter.

8. **General features of occupancy privilege.**—We may now briefly indicate the nature of the protection enjoyed by occupancy tenants. (i) There is a limit to the enhancement of the rent both as regards the amount and the period which must elapse before rent can be increased. Enhancement can occur only as a result of agreement or by decree of a court on specific grounds. In Bengal, the law lays down that these agreements must be in writing and that the enhancement cannot take place oftener than once in fifteen years and cannot be more than two annas in the rupee. The grounds for enhancement recognized by the court in the event of a suit are

lightness of rent as compared with neighbouring land, advance of prices, or improvement in the productivity of land due to the enterprise of the proprietor, or to fluvial action. The tenant can sue for a reduction of rent on the ground of permanent deterioration of the soil or a permanent fall in local prices. In the Central Provinces, the rent is fixed by the Settlement Officer as in the case of absolute occupancy tenants, but not for the whole term of settlement, being liable to revision every ten years. In Madras, rent cannot be increased by more than twelve and a half per cent at one time. (ii) There are certain provisions protecting the occupancy tenant from ejectment except in special circumstances. Provisions in this connexion are really complementary to those in connexion with enhancement of rent. Either set of provisions would be useless unless supplemented by the other. (iii) The occupancy right is hereditary and can be alienated, that is, parted with, or transferred outside the family on certain conditions. (iv) There are certain laws of distraint for rent securing the exemption of cattle, tools, seed-grain and so on. Further, in every case proper notice to quit is required, and payment of rent is by instalments. (v) Remissions and suspensions of land revenue granted by Government to landlords in a bad year must be followed by corresponding concessions granted to tenants by landlords. (vi) Lastly, the right to make improvements on the land without enhancement of rent is also protected within certain limits, or in the event of higher rent being charged, compensation must be allowed.

In short, the aim of these rules is to confer on tenants the privilege of the three F's—fair rent, fixity of tenure and free transfer—as in the case of the Irish land legislation.

9. **Tenancy in rayatwari provinces.**—Here, as a general rule, there has been little artificial growth of a landlord or middleman class between the cultivator and the State. There is, therefore, not the same necessity for recognizing subordinate rights and varieties of tenancy which need such careful treatment in north Indian settlements. As we have already seen, there are some landlord estates even in rayatwari provinces, as in the case of the Madras zemindars or the Bombay khots and talukdars, and most of these cases, as we have just noted, have been provided for by special Tenancy Acts. As regards the ordinary contractual tenants under rayatwari holders either in Madras or Bombay, or any other province where the rayatwari system is mainly in force, there is no special legislation intended to protect them from arbitrary rent enhancement or summary eviction, although, of course, the general tenancy law will enforce the terms of an agreement, if any, between the two parties, or failing an agreement, the dictates of any particular usages of

the locality in question. The increase in the number of tenancies and the excessive competition among tenants for land has gradually created a situation in rayatwari areas which needs to be met by tenancy legislation on lines similar to those adopted in zemindari provinces.

10. **What is a settlement?**—The ground being prepared by a preliminary study of land tenures, we are now in a position to consider land revenue settlements. What is technically called a settlement of land revenue consists of the determination of (i) the share of the produce or the rental to which the State is entitled; (ii) the person or persons liable to pay it; and (iii) the record of all the private rights and interests in the land. As previously stated, the last item is particularly important in landlord areas, individual or joint, where there is a regular graduation of landed rights and interests that have to be recognized.

11. **Requisites of a settlement.**[1]—Three principal stages in the process of land revenue settlement may be distinguished: (i) preparation of a cadastral record; (ii) assessment of revenue; and (iii) collection of the revenue assessed.

(i) *The cadastral record.*—The cadastral record[2] which includes the village map, the fiscal or the revenue record, and the record of rights, is prepared by means of a detailed field-to-field survey of the land and the demarcation of the boundary lines so as to secure an exact account of the cultivable land, the extent of each kind of soil requiring its own rate of assessment, and the preparation of a correct record of rights. From this survey, a map is prepared for each village showing the separate holdings and the area and nature of the cultivable and waste land. To correspond with the village map, a field register is usually prepared, and from these two, the fiscal or revenue record, showing a correct list of revenue payers with the amount shown against their names. These are supplemented by statistical tables and returns illustrating the past history and the present condition of the village. Lastly, a record of rights, either separate or as an adjunct to the revenue record, is prepared showing the tenure of land, and the various rights in the land, such as the rights of landlords, co-sharers, sub-proprietors, occupancy tenants, etc., as well as the rights created by mortgage, sale, lease and so on. All these records are kept up-to-date by a system of public entry and registration of all changes. The rights thus recorded are presumed to be legally valid until the contrary is proved.

[1] See *Imperial Gazetteer*, vol. IV, chap. vii.

[2] 'Cadastral' literally means showing the extent, value, and ownership of land for taxation.

(ii) *Assessment of revenue.*—In order to find the revenue demand there is a valuation of the land, the ascertainment of revenue rates and the totalling up and adjustment of them. This gives the sum payable by the estate or holding. In some cases, subsidiary proceedings to determine the distribution of this total among co-sharers and the adjustment of tenant rents are necessary.[1] The different bases for assessing revenue adopted in the various provinces will be considered presently.

(iii) *Collection of revenue*: (*a*) *Instalments.*—Land revenue is collected not in one sum but in instalments, so as to suit the convenience of the revenue payers. The average landlord, for example, cannot pay unless the harvest is reaped and the produce marketed. Another consideration governing the system of instalments is to avoid too great a demand for cash at one time, for this is likely to send prices down and raise rates of interest to inconvenient levels.

(*b*) *Procedure for the recovery of revenue arrears.*—In respect of recovery of arrears, there is a difference between tracts under Permanent Settlement and those under Temporary Settlement. In the former, the gift of the landlord right was accompanied by the rigorous condition that the revenue must be paid with absolute punctuality under threat of immediate sale of the estate—a course of action deemed to be preferable to the alternative of subjecting a great landlord to the indignity of personal imprisonment, or attachment and distraint of moveable property. In the Temporary Settlement areas, the procedure is less strict and the sale of land, instead of being the first step, is usually the last of a series of steps.

(*c*) *Suspension and remission of revenue.*—Though the assessment is fixed with reference to average seasons and conditions during the period of the settlement, exceptional disasters, widespread or local, such as floods, blight, total failure of rains or of other sources of irrigation, or an economic depression owing to a collapse of prices of agricultural produce as in recent years, etc., are apt to upset all calculations, even assuming that the agriculturist has the will and the power to utilize a good harvest as an insurance against a bad year, which is rarely the case. In these circumstances, relief graduated according to the degree of crop failure is necessary and may take the form of suspension, or remission (partial or complete). The suspended revenue may be recovered or remitted according to the nature of the succeeding harvest. Remission, partial or complete, is granted in the case of continued

[1] See Baden-Powell, op. cit., p. 148.

failure of crops over more than one year. It may be noted that no such relief either by way of suspension or remission is granted in the permanently-settled zemindari tracts, where, indeed, it is hardly needed now in view of the present lightness of the fixed burden of assessment.

12. **Classification of settlements.**—Settlements fall into two classes according to their duration. Where the share of the State is fixed in perpetuity, as in Bengal, it is called a Permanent Settlement; and where it is fixed temporarily for a certain period, it is called a Temporary Settlement. The period is thirty years in Bombay, Madras and United Provinces, twenty years in the Central Provinces, and forty years in the Punjab.

Settlements may also be classified according to the system of tenure. Corresponding to the three main kinds of tenure already indicated, and as influenced by them, there are three main kinds of settlement as follows:—

(i) Settlements for single estates under one landlord. Varieties:—

(*a*) Permanent Settlement with the zemindars in Bengal, north Madras and Benares.

(*b*) Temporary Settlement with the remaining zemindars in Bengal.[1]

(*c*) Temporary Settlement with the talukdars of Oudh.

(ii) Settlements for estates of proprietary bodies, usually village communities. These are called mahalwari settlements. Varieties (all varieties of this are on a temporary basis):—

(*a*) The mahalwari settlement in the United Provinces of Agra and Oudh (where there are no talukdars but only village communities).

(*b*) The mahalwari settlement of the Punjab.

(*c*) The malguzari settlement of the Central Provinces.

(iii) Settlements for individual occupancies or holdings. Varieties (all varieties under this are on a temporary basis):—

(*a*) The rayatwari system of Madras.

(*b*) The rayatwari system of Bombay and Berar.

(*c*) Special systems (in principle rayatwari, but not officially so called) of Burma, Assam and Coorg.[2]

Every settlement must thus belong to one or other of the three

[1] A zemindari settlement is not necessarily also a Permanent Settlement and a rayatwari settlement is not necessarily a Temporary Settlement. Some zemindari settlements are temporary, for example, in Oudh, and in Bengal itself. Again, there is nothing to prevent a rayatwari settlement from being permanent, though as it happens, there is apparently no actual instance of this.

[2] Ibid., pp. 148-9.

classes mentioned above and must be either temporary or permanent.[1]

13. **Zemindari settlements: Permanent Settlement in Bengal.**— We have already seen how the development of revenue farming, particularly in Bengal, led to the supersession of the old ryots by a new body of landlords known as zemindars. We have also pointed out how, owing to the disruption of the Mogul Empire, the old regular system of revenue administration evolved by Akbar had fallen into hopeless decay, and the cultivators were ground down by the exactions of the zemindar on the one hand, and on the other, by the numberless extra imposts levied on the land by the provincial rulers. The position, if anything, was made much worse in the early years of the Company's rule after the grant of the Diwani in 1765. The confusion was worse confounded by Clive's dual government system, under which neither the Nabob's revenue officers nor the East India Company's servants felt any responsibility for the good government of the country, with the result that the people were oppressed by both and protected by neither. The supervisors of revenue appointed in 1769 to protect the cultivator from the exactions of zemindars, being young and inexperienced officers, did not in the least set matters right. The terrible famine of 1770 served only to intensify the difficulties. The Court of Directors decided in 1772 to stand forth as the Diwan, and instructed Warren Hastings to assume the direct administration of revenue. He improved, to some small extent, the machinery of collection by appointing Collectors, and subsequently by creating Divisional, Provincial and Central Boards of Revenue. The change in the method of assessment, however, proved disastrous. At first quinquennial and then annual leases for the collection of revenue were sold by public auction to the highest bidders, setting aside the existing zemindars and encouraging the introduction of capitalists and speculators, who tried to screw out of the peasants the utmost they could by way of rents and additional illegal cesses on land. The deplorable state of the finances of the East India Company and its anxiety to give high dividends to its shareholders was at the root of the new system. It was chiefly to straighten out these matters and to relieve the agricultural distress in Bengal that Lord Cornwallis came out to India in 1786.

The most important measure of the administration of Lord

[1] In 1928-9, the total acreage of rayatwari holdings was 334,598,000 or 51 per cent of the total area; of permanently settled zemindari or village community holdings 121,017,700 or 19 per cent of the total area; and of temporarily settled zemindari or village community holdings 198,902,000 or 30 per cent of the total area (*India in 1930-31*, p. 169).

Cornwallis is the Permanent Settlement of Bengal. The idea of fixing the State demand in perpetuity, first mooted by Francis and later on adopted by Fox in his India Bill, was ultimately recommended to the Indian authorities by the Court of Directors in 1785, but it was left to Lord Cornwallis, assisted by Sir John Shore, to carry out the policy of Permanent Settlement in Bengal. After inquiries lasting for three years, a settlement was made with the zemindars, who were declared full proprietors of the areas over which their revenue collection extended, so that they might have some legal status which would enable them to fulfil their obligation to the Government, and to induce them to take an interest in their estates. This right was, however, subject to the payment of land revenue and to liability to have the estate sold for failure to pay. The Government also reserved the right to introduce any measures they might think necessary 'for the protection and welfare of the dependent talukdars, ryots and other cultivators of the soil'. The assessment was fixed approximately at ten-elevenths of what the zemindars received as rent from the ryots, the remaining one-eleventh being left as the return for their trouble and responsibility. The revenue liability was fixed in a rough and ready fashion without any survey or record of landed rights and interests, or any investigation into the productive capacity of the different classes of soils. In 1793, in consultation with the Court of Directors, the settlement was declared permanent and the assessment unalterable for ever, and the Government specifically undertook not to make any demand upon the zemindars or their heirs or successors 'for augmentation of the public assessment in consequence of the improvement of their respective estates'.[1] It may be noted here that while Sir John Shore was at one with Lord Cornwallis so far as the recognition of the zemindars was concerned, he would have preferred to wait for the decennial period of settlement already in force to run out before declaring the settlement perpetual.

14. **Criticism of the zemindari settlement of 1793 in Bengal.**— The settlement thus effected is open to criticism on various accounts. In the first place, the essential preliminaries to any settlement, namely, a detailed survey, classification of soils and the preparation of a record of rights were dispensed with. There were no doubt several more or less valid reasons for this omission. A really scientific survey was, in the then existing circumstances, difficult owing to deficiency of trained personnel, etc. Secondly, it was thought impolitic to pry into the internal concerns of the estates and possibly to excite the distrust of the landlords. As for

[1] See *Taxation Enquiry Committee Report*, par. 55.

the ryots, it was hoped that the landlords would come to an understanding with them and protect their rights. Nevertheless, as Baden-Powell remarks: 'The fact that the Permanent Settlement was made without any survey, and without any record of landed rights and interests, has proved more fraught with evil consequences than perhaps any other feature of the settlement.' [1]

This leads us to notice the second great defect of the Permanent Settlement, namely, the failure to guard the rights and the interests of the ryots, who suffered a double injustice, first, by losing their proprietary rights indefinitely, and secondly, by being left almost entirely to the mercy of the zemindars, who proceeded to rack-rent them.[2] There was, indeed, a general provision that leases or *pattas* were to be given to the ryots specifying the area as well as the terms and conditions of the holding, but in practice this was of no avail, as the *pattas* could not be enforced and also, in some cases, because the ryots were unwilling to take them for fear of admitting their inferior position and of committing themselves to the acceptance of conditions which they did not quite understand. It must, however, be admitted that the sad plight of the ryots was in no small measure due to the extremely heavy assessment, which was exacted with great rigour. In the event of default the estate was immediately sold by auction. That being so, it was necessary to assist the landlord in realizing the rents due from tenants to enable him to pay his Government dues with the absolute punctuality that was insisted upon. Again, in many cases, the landlord, being unable to meet the State demand, had his estate actually sold, and naturally the successor required a clear title before he could be induced to purchase it. This meant a more complete supersession of the rights of the ryot and his subjection to more and more extortionate demands on the part of the new-comer. The tenant had to wait for nearly three-quarters of a century before any attempt was made through the tenancy laws of 1859 and 1885 to grant him redress from the grievous wrong he had suffered so long.

It has been asked whether it was absolutely necessary to give such unconditional recognition as proprietors to the zemindars. It

[1] *Land Systems of British India,* vol. I, p. 289.

[2] 'The errors [of Permanent Settlement] were twofold: they consisted, firstly, in the sacrifice of what may be denominated the yeomanry, by merging all village rights, whether of property or occupancy, in the all-devouring recognition of the zemindar's permanent property in the soil; and secondly, in the sacrifice of the peasantry by one sweeping enactment, which left the zemindar to make his settlement with them on such terms as he might choose to require.'—Sir J. E. Colebrooke, quoted by Sir T. Morison, *The Industrial Organization of an Indian Province,* p. 27.

is often asserted that, Lord Cornwallis being himself an English landlord, laboured under aristocratic prejudices and desired to create a landed aristocracy here similar to that in England, though the conditions of the two countries were widely different. The Permanent Settlement, however, was emphatically the work of the Company's middle-class servants. Quite possibly the fact that Cornwallis belonged to the English aristocracy made him readier than he otherwise would have been to accept the policy with which his name is associated. But it is certainly not true that he was its sole originator and protagonist. The other consideration is that when he appeared on the scene, he found the zemindars occupying such a strongly entrenched position that it would have been impossible to ignore them and set aside the development of a century and go to the root of the problem, as it were, trying to search out the original owners of the soil, as opposed to the zemindars, who started by being merely farmers of revenue. In accepting the *fait accompli,* therefore, Lord Cornwallis, it may be urged, was impelled by the inexorable logic of facts. Further, it must be remembered that the all-round ruin in which the agriculture of Bengal was then involved, partly as the result of the kaleidoscopic changes in the post-Diwani revenue policy and the terrible famine of 1770, imperatively called for some drastic solution. In these circumstances, it was felt desirable to acknowledge as proprietors the zemindars, who happened to be the only well-established revenue machinery that was available, and in whose recognition seemed to lie the only chance of agricultural revival.

The third and the most important aspect of the Bengal settlement, namely, perpetuity of assessment, is a question not limited to Bengal alone but of much wider importance. It may, therefore, be reserved for treatment at a later stage.

15. **Permanent settlement in Benares and Madras.**—In Benares, the British, anxious to follow the Bengal model and as yet not sufficiently familiar with the peculiar system of joint tenure of land, ignored the existence of landlord villages with a strong clan or tribal connexion, and dealt with one of the chief co-sharers or some other prominent person on a Permanent Settlement basis (1795). In Madras, no definite plan was followed until after the cession of Mysore and the Karnatak districts, when, although a settlement on rayatwari lines had already been initiated, an attempt was made to extend the permanent zemindari settlement to the whole Presidency. There was a considerable diversity of opinion as to the system to be adopted, but the Court of Directors, impressed by the punctuality with which revenue was paid under Permanent Settlement in Bengal, instructed the Madras Government to enter

into a permanent engagement with the zemindars. In north Madras and certain parts of south Madras, individual landlords existed, being mostly descendants of former ruling chiefs, and no difficulty was experienced in settling with them. In south Madras, however, only a few of these landlords—or polygars as they were called—were recognized, and the others were dispossessed as a penalty for having resisted the British power. In the major portion of the Presidency, however, there were rayatwari villages where no such intermediaries existed, and in pursuance of the instructions of the Court of Directors, an attempt was made to create substitutes out of enterprising contractors. The villages were grouped together into artificial districts or parcels and sold by auction to the highest bidders, who then became the landlords of the whole estate. This experiment failed disastrously as it deserved to do. As Baden-Powell remarks, 'the real zemindar, in his natural growth of a century and a half, was bad enough; but what could be said for an auction-room landlord? Of course, the system failed miserably.'[1] The experiment was, therefore, abandoned in favour of the rayatwari system strongly advocated and developed by Munro, if not originated by him. But before the rayatwari system was authoritatively adopted, between one-fifth and one-third of the Presidency had already come under the Permanent Settlement. The course of tenancy legislation for zemindari estates in Madras has already been described.

16. **Subsequent history of Permanent Settlement**: *(a) Under the Company.*—In the days of the Company's rule, Wellesley, Minto, Hastings, Bentinck and Munro[2] had all strongly advocated the extension of Permanent Settlement to other parts of India on the ground that, judging from the case of Bengal which had experienced a great revival under it, it seemed to hold out sure prospects of rapid agricultural development. The Directors of the East India Company, however, rejected the proposals (1820), in spite of solemn pledges given by proclamation and the expectations raised in all parts of the country.[3]

[1] *Land Systems of British India,* vol. I, p. 292.

[2] It has, however, been disputed whether Munro was really in favour of Permanent Settlement. It has been urged that what he really meant by 'fixed' or 'permanent assessment' was securing the proprietorship of the ryots in their holdings in perpetuity, and not unalterable assessment which he contemplated being raised or lowered according to the exigencies of the State (see *Land Revenue Policy of the Government of India,* p. 167).

[3] As Mr. Justice Ranade pointed out, 'Captain Wingate and his associates who were the great pioneers of the Bombay survey always regarded Permanent Settlement as the consummation of their land policy, to which the periodical settlements were only intended to serve as a preparation and midway introduction' (see *Report of the Land Revenue Assessment Committee, Bombay* [1926] p. 72).

(b) Under the Crown.—After the abolition of the Company the question was revived by Lord Canning on the recommendation of Colonel Baird-Smith who was deputed in connexion with the severe famine of Orissa in 1860 to inquire into the causes of, and suggest remedies for, such calamities. Sir Charles Wood, while agreeing with the recommendation, failed to take any action. Sir Strafford Northcote, the next Secretary of State, proposed in 1867 the introduction of Permanent Settlement subject to certain conditions, such as that, where eighty per cent of the cultivable land was brought under cultivation and there was no prospect of canal irrigation increasing the produce by more than twenty per cent, the State demand should be fixed in perpetuity. These conditions meant in effect that Permanent Settlement was to be deferred as long as the land continued to improve in value. Lord Kimberley, the Secretary of State, however, finally rejected the proposal altogether in 1883 mainly on the ground that the country was as yet undeveloped. Since then the attitude of Government has been to regard the question of Permanent Settlement as closed, although from time to time echoes of the old controversy of Permanent versus Temporary Settlement continue to be heard.

17. **Temporary Settlement with the remaining zemindars in Bengal and with the talukdars of Oudh.**—Those parts in Bengal that are not permanently settled for one reason or another come under a Temporary Settlement, under which the percentage of the assets taken is very high, as much in fact as seventy per cent, the holders of the settlement being usually middlemen, of a class for whom thirty per cent of the assets is regarded as ample remuneration. As to the mode of assessment, the system adopted in Bengal is identical with that in use in Agra which is described below.

The component villages under the talukdars are so important and so much considered that virtually the Oudh settlement may be regarded as a modified form of the joint village settlement system which we now proceed to describe.

18. **Mahalwari settlements.**—The Temporary Settlement as developed in the Agra province is the typical form adopted in provinces where mostly village communities with landlord rights are dealt with. An attempt was at first made to settle the villages on a permanent basis with a revenue farmer or some other person of note. The Home authorities, however, would not hear of Permanent Settlement, and besides in 1819, Holt Mackenzie, as secretary to a Commission of Inquiry, drew attention to the existence of village proprietary bodies and pointed out that they had to be reckoned with, that the single-landlord ideas derived from Bengal could not very well be applied, that a proper survey

and a careful record of all rights whatever were indispensable, and that Permanent Settlement as a general measure could not be thought of.

The question of settlement in Orissa also came up at the same time as inquiries were set on foot in the North-Western Provinces, now called the United Provinces of Agra and Oudh, and to deal with both the cases the famous Regulation 7 of 1882 was passed. This, together with later amendments, is the chief basis for all subsequent Temporary Settlements with landlords and village bodies.

In Agra, barring a few cases of individual zemindars and Agra talukdars, in the majority of cases there was no person above the village bodies. These were, therefore, settled with directly in their collective capacity, though a co-sharer of standing and respectability was generally selected to undertake the primary liability in connexion with the payment of the land revenue, and he signed the settlement on behalf of all the co-sharers, who were made jointly and severally responsible for the assessment. As the overlord rights of the Agra talukdars were very much inferior to those of the proprietary rights of the Oudh talukdars, their claims were disposed of by making the assessment payable by village bodies under them just so much higher as was necessary, and ten per cent of the land revenue was paid as talukdari allowance to them directly from the Government Treasury. Returning to the settlement with the village communities in Agra, we must note that a section of a village or even an individual co-sharer (above a certain limit) can move for what is called 'a perfect partition' of separate and individual revenue liability to take the place of joint liability. The work of settlement is partly judicial and partly fiscal, referring respectively to the ascertainment and record of rights in land on the one hand, and, on the other, the assessment of the revenue demand as well as in some cases the adjustment of tenant rents. As to the settlement, we have the usual stages of demarcation, survey, record of holdings and rights, and lastly, the assessment itself.

19. **Principles of assessment in mahalwari systems.**—The principles of assessment which we are about to describe must be understood to apply to all the mahalwari systems. After experimenting with several methods, such as the valuation of net produce, etc., Government adopted the following plan of fixing the assessment. The actual rental value of the lands in the village is taken as the basis, direct or indirect, of the assessment. Revenue is technically said to consist of 'a fraction of the assets' of the estate as annually received. This fraction has varied from time to time. It was very

high in the beginning under the East India Company, being over 80 per cent;[1] it was reduced to 66 per cent in 1833 by Lord William Bentinck; under the Saharanpur Rules of 1855 it was further reduced to about 50 per cent; and according to official claims the actual fraction realized in most cases is well below 50 per cent at the present time.

The assets mainly consist of (i) the total rents actually received, which constitute by far the most important determining factor in Agra, (ii) the calculated rental value in the case of lands held by the proprietors themselves or allowed by them to be rent free, and (iii) certain miscellaneous profits, such as those from valuable waste lands, income from grazing, fruits and wild produce, etc. Of these three, the first two, making up the rental assets of the estate, are the principal factors.

This is the general principle of assessment in the different mahalwari settlements in Agra, Oudh, the Punjab, and the Central Provinces, though there are differences in detail in the various provinces. Actual rates of rent paid at the time of settlement are the basis of the Agra plan. In the Central Provinces, the necessity for securing more perfectly an equality of incidence of rents has led to the adoption of a peculiar method to be noted later on. In the Punjab, since much of the land is held by the proprietors or by tenants who pay in kind, a direct process of calculating cash rental cannot be followed. It is, therefore, necessary to ascertain a fair rate for all land of a given class on the basis of actual cash payments on the specimen holdings; and these representative values are applied to all the lands in the village.

20. **Mahalwari settlement operations in the United Provinces.**— At the commencement of the settlement operations in the United Provinces, the Settlement Officer inspects the villages and groups them into assessment circles possessing general similarity of soil and physical character. The rent for each class of soil is then determined. The chief guide adopted for this purpose is the cash rental of the lands under ordinary crops held by permanent and responsible tenants who depend for their livelihood upon their holding. The Settlement Officer then determines the rent rate with reference to the ascertained rentals, after taking into account such factors as means of communication, increase of population, crop statistics and increase in the area cultivated.[2] Where there are no

[1] For example in Orissa, in 1822, it was authoritatively declared to be 83·3 per cent of the assets; in 1840, 65 per cent, with a permissive reduction to 60 per cent, while at the re-settlement of 1901, it was brought down to 54 per cent (see *Land Revenue Policy of the Government of India*, p. 13).

[2] See *Taxation Enquiry Committee Report*, par. 67.

cash rents, the Settlement Officer takes as his basis either the rents paid in the village for similar lands or his own circle rates.

The system as applied to Oudh.—The Oudh settlement is practically the same as in Agra in all its features including assessment, except that the settlement is only occasionally with village communities, and in most cases, single talukdars are dealt with in one sum for an estate comprising a greater or less number of villages. The talukdar's revenue payment is based on the aggregate of the sums leviable as rent from each village in his estate. In some cases, as already seen, where the village communities under him have succeeded in preserving their rights, a 'sub-settlement' with these is made, and the payment to the talukdars is fixed so as to allow for the talukdar's profit which is in no case less than ten per cent of the land revenue.

21. **Mahalwari settlement of the Punjab.**—Here we have the same system as regards survey, record of rights, etc. But there is a difference in detail so far as the method of assessment is concerned. There is no considerable body of tenants and of such as do exist many pay in kind. The Settlement Officer, therefore, calculates direct revenue rates per acre for each kind of soil in the village estate, basing them on what the rental assets would be if a cash rent were uniformly paid. For this purpose, there is a division of the area into circles in each of which broadly distinguishable classes of soil are adopted. Then certain standard rates are fixed after taking a certain number of fair specimen holdings representing each kind of soil and finding out what they actually pay in cash, and failing this, what the cash value of the grain rental is. These standard rates are utilized as a general basis for the assessment. In the Punjab, though theoretically revenue is collected not from individual cultivators but from joint holders of village estates jointly and severally responsible for it, in practice the share of revenue due from each is distributed and can be recovered separately. The cultivators, therefore, are generally in the same position as peasant proprietors in Bombay and Madras.[1]

22. **Malguzari settlement of the Central Provinces.**—The system in the Central Provinces, again, is practically the same as the one in Agra so far as the basis of assessment is concerned. There is, however, a difference in respect of one important particular. In the Central Provinces, the revenues of the villages had been farmed out by the Marathas to individuals generally called malguzars. The British Government's anxiety, however, to deal with individual landlords led to the conferment of a proprietary status

[1] See *Taxation Enquiry Committee Report*, par. 68.

on these and their recognition as heads of villages, although the villages here were of the rayatwari type as in Bombay and Madras, consisting of aggregates of cultivators each claiming exclusive ownership of his holding. Extensive protection had, therefore, to be given to them, having regard to the fact that from the position of proprietors they had been degraded to that of tenants of the malguzars. The Settlement Officer, therefore, has not only to fix the revenue demand to be made from the malguzars but also to determine the rent payable, by practically all classes of tenants, to the malguzars.[1] It is obvious, therefore, that the method of calculating the rental value must be more accurate than where it merely serves as a general basis for the revenue demand on the part of the Government.

The fixation of rents in the Central Provinces is thus a highly complicated process and is achieved by an elaborate system of grouping and soil classification according to what are called 'soil units' which are intended to be measures of the productive capacity of the soil. 'The value is assumed to depend on the average net profits of cultivation, and to each class of soil in every position a factor is assigned expressing its value relatively to other soils, so that the soil unit varies, not only with the fertility of the soil, but also with the position of the land.'[2]

23. **Rayatwari settlements: the rayatwari system of Madras.**— We have already noticed above[3] how the rayatwari system was adopted in Madras after the failure of attempts to introduce Permanent Settlement. The principles of settlement are not embodied in any statute and are derived from extensive instructions. There is an accurate survey of each village, and a village map with a descriptive register of all holdings is prepared. The lands are classified according to the productive capacity of the soil, which is estimated in terms of quantity of some one of the ordinary grain crops. The grain value is converted into money value at a commutation price, based generally on an average of twenty non-famine years previous to the settlement. From this, the expenses of cultivation being deducted, we get the net produce, of which about one-half is fixed as the maximum land revenue. There are

[1] 'The fixation of rents which is the most important settlement operation is complicated by the general and increasing tendency on the part of malguzars to allow rents to continue at a low figure and to exact *nazaranas* on new leases of surrendered holdings or on the leasing of land for the first time' (*Taxation Enquiry Committee Report*, par. 69).

[2] Ibid.; for further details, see Baden-Powell, *Land Revenue and Tenure in British India*, pp. 186-8.

[3] *Ante*, pp. 381-2.

abatements allowed for traders' profits, and for the distance the grain has to be carried to the market, and on account of vicissitudes of season and unprofitable areas. 'After this, soils of similar grain values, irrespective of their classification, are bracketed together in orders called *taram*, each with its own rate of assessment. These rates are further adjusted with reference to the position of villages in which the lands are situated and the nature of the sources of irrigation. For this purpose, villages are formed into groups; in the case of dry lands, with reference to their proximity to roads and markets, and, in the case of wet lands, with reference to the nature and quality of the water supply. This accounts for different rates of assessment being imposed on lands of similar soils but situated in different groups or under different classes of irrigation. The assessment thus fixed represents the commuted value of the Government share of the surface cultivation. But if minerals are discovered in the land, a separate assessment will be levied therefor.'[1]

24. **The rayatwari system of Bombay.**—Unlike Madras, Bombay possesses a land revenue code which regulates all matters connected with settlement. There are also special Acts to deal with the special classes of estates, such as those of the talukdars in Gujarat, the khots in the Konkan and the few joint villages of the Khera and Broach districts.

In our general historical survey of land revenue, we have made reference to the revenue administration of the Marathas and its deterioration under the last of the Peshwas as a result of the introduction of revenue farming. When the British took over the Deccan from the Peshwas, they decided to put an end to the pernicious farming system and go back to the more equitable system of Nana Farnavis.

After various short-lived experiments and several proposals, including a general village settlement of the mahalwari type, the rayatwari system was eventually adopted. In 1825 Pringle was ordered to undertake a detailed survey of the land. He also tried to introduce an elaborate land classification with extreme accuracy, on the basis of net profits obtained. This required an infinite mass of details, and the whole experiment proved a failure on account of the high pitch of assessment in which it resulted. The intricate nature of the inquiry and the impossibility of supervising the army of subordinates entrusted with the work of collecting data made the apparently scientific investigation altogether

[1] Standing Orders of the Board of Revenue, Madras, quoted in *Taxation Enquiry Committee Report*, par. 64.

unreliable. What was really necessary was a large reduction of the existing assessments, which were universally regarded as too heavy. The failure of the experiment was emphasized by a series of famine years which supervened.

Government therefore directed that the whole operation should be commenced *de novo,* and in 1836 entrusted the task to two officers, Mr. Goldsmid and Lieutenant Wingate. The system introduced by them, as modified from time to time, is essentially the system now in force.[1] In 1840, they submitted their report, in which they laid down the general principles for the basis of a survey settlement suited to the conditions of the Bombay Presidency. They recommended moderate assessment, settlement for thirty years, protection of improvements from taxation during the term of settlement, recognition of property in soil, perfect freedom of management with regard to sale, transfer and rents to be charged to subtenants, etc. Later on, Captain Davidson was appointed to collaborate with these officers, and in 1847 they issued a report which is well known as the Joint Report, in which are elaborated the principles underlying the present system.

According to the system adopted in this Report, the basis of net profits for the classification of land as under Pringle's system was abandoned. The depth and the texture of the soil were taken into consideration instead. The assessment itself was regulated by experimental rates based upon general considerations as to rainfall, agricultural prices, prosperity of the land and so on, the fundamental principle being that no more should be asked from the cultivator than what he could easily afford to pay. The *mirasi* and *upri* tenures of the olden days were merged into a uniform tenure known as the survey or occupancy tenure. The title of the cultivator to his holding was declared to be indestructible so long as he continued to pay the assessment. He was entitled to relinquish any fields or take up others so as to suit the extent of his liability to the means at his command. His position and status have been defined in the Bombay Land Revenue Code on this basis. The tenure so created is known as rayatwari, under which the proprietary cultivator holds his land direct from Government. Full occupancy tenure is heritable, transferable and otherwise alienable without the permission of Government. The occupancy is liable to forfeiture for failure to pay the assessment. A guarantee is given that no additional taxation will be levied on account of improvements made by the occupant.[2]

[1] *Report of the Land Revenue Assessment Committee, Bombay* (1926), pp. 8-9.
[2] See Keatinge, *Rural Economy in the Bombay Deccan,* pp. 20-1.

25. **Main features of settlement in Bombay.**[1]—The rayatwari system of Bombay has the same general features as in Madras, such as demarcation of boundaries, the determination of survey numbers which once fixed are not altered, and the classification of the soil, but the mode of assessment is different from that in Madras. The relative values of the soils are classified once for all according to their depth, texture, capacity for retention of moisture and other physical properties bearing on fertility, into several groups, and expressed in fractions of a rupee, sixteen annas representing the best class of soil. The object of this classification, unlike in Madras, is not to base the assessment on the net produce but merely to use it as a basis for the distribution of the total revenue demand fixed for the area on general considerations.

Three main steps in the process of fixing the assessment may be distinguished: (i) The first step is the grouping of the talukas according to marked and permanent distinctions such as climate, situation and the general condition of cultivation. (ii) The second step is the determination of the aggregate revenue demand for the area (usually a taluka) with reference to its revenue and economic history. (iii) The last step is the determination of the revenue liability from aggregate to detail. This, as we have already mentioned, is carried out with the help of the annewari classification of the soil which serves the purpose of a sliding scale. Thus, if the maximum rate be Rs. 3 per acre, for the 16-anna field, it would be Rs. 1-8 per acre on a field classified as 8 annas.[2] The purely empirical character of the Bombay system is brought out by the fact that the decision of the Settlement Officer as regards the revenue rates depends, 'not upon the formal working out of results based on theory, but rather upon the subjective impressions of local knowledge and experience.'[3] In recent years, however, the rental value, as ascertained by records of leases and sales and other similar factors, is being adopted as the basis for fixing the assessment in practice,[4] though *The Survey and Settlement Manual* directs that 'the arguments for enhancement should be based primarily on the indirect evidence of general considerations . . . and that the

[1] See *Land Revenue Policy of the Government of India,* chap. viii, for a more detailed description of the Bombay system.

[2] The system of settlement in Berar is precisely similar to that prevalent in Bombay, excluding Sind, where assessment rates depend on irrigation, and not on rainfall which is negligible, and where the period of settlement is shorter than in the rest of the Presidency.

[3] *The Bombay Survey and Settlement Manual,* quoted in *Taxation Enquiry Committee Report,* par. 66.

[4] See Bombay Government's Resolution on the *Land Revenue Assessment Committee Report* (1927).

rental statistics should be employed only as a check to prevent the enhancements from going too high'.

There are certain restrictions as regards the increase in assessment resulting from a revision, according to which the increase is limited to 33 per cent on the total for a whole taluka, 66 per cent on that of the village, and 100 per cent on that of a single holder. Private improvements are protected, as already stated, being, in theory, entirely exempted from increased assessment, though for lack of clear specific instructions as to what is to be regarded as an improvement and what is not, it is complained that too much is left to the judgment of the Settlement Officer and improvements do sometimes get taxed. On the other hand, there is no reason, in theory, why all improvements should be permanently exempted. It should be enough if the exemption covers the period required for the improvement to be amortized.

26. **Special systems (in principle rayatwari) of Burma and Assam.**—(i) *Burma.*—The present system in Burma is very much like that of Madras, being based on the net produce, and has replaced the earlier system under which, in lower Burma, one-fifth of the value of gross produce was taken and, in upper Burma, the *thathameda*, which was a kind of general tax levied on private lands.

(ii) *Assam.*—In Assam, the only proprietors were the Permanent Settlement landholders of the older Bengal districts and a few other permanent cultivators enjoying a title, which is called landholder's title, based on occupation of land for ten years before the Regulation of 1886, and after the Regulation, on lease or grant of settlement for ten years. A great deal of the land is also held on an annually renewed permit or *patta*, or at least on a lease which is for less than ten years. In Assam, waste land rules are especially important, as hardly twenty-five per cent of the area of any district is under cultivation.

Tea gardens are held on leasehold tenure for long terms at low rates of assessment. After the expiry of the term of lease the land is liable to be assessed under the laws in force, provided that the rate cannot be higher than that payable on the most highly assessed lands in the district cultivated with any ordinary agricultural crop. The question of how the State should absorb at least a part of the increase in value which these lands are experiencing, is engaging the attention of Government.[1]

27. **State ownership versus individual ownership.**—Before entering upon a critical examination of the present land revenue

[1] *Enquiry Committee Report*, par. 71.

system and the various controversial questions arising in connexion with it, we shall dispose of a controversy which is supposed to be so important that the decision on practically every important question relating to land revenue is taken to depend on the view we take on the matter. We are referring to the question whether the State is the universal landlord or whether there is indisputable private property in land in India. At the very outset, we may say that no clear and unambiguous answer can be given to the question that is thus propounded, and secondly, that, in any case, for all practical purposes, it does not very much matter whether we call the land revenue a rent or a tax.

We shall proceed at first to discuss the question on the usual lines. The specific issues that arise have been stated as follows by the Taxation Enquiry Committee. (i) Did the State claim exclusive proprietary rights over the land (*a*) under Hindu rule, (*b*) under Mohammedan rule? (ii) Did the British Government succeed to any such rights? (iii) Is the State now the proprietor of land held (*a*) on zemindari or (*b*) on rayatwari? (iv) If not, are the zemindars and ryots respectively, the possessors of the proprietary right subject to the payment of land revenue? (v) Should the land revenue be described as a tax or rent?

As regards the first two points, the opinion is generally held that the State never claimed exclusive proprietary right over the land before the British era and that, therefore, the British cannot be said to have *succeeded* to any such claim. In this connexion, the views of Mountstuart Elphinstone, H. H. Wilson, Baden-Powell, etc., and also an elaborate judgment of the Bombay High Court, in a case from Kanara disposed of in 1875, are quoted. The judgment in question endorses the view of Wilson that the proprietary right of the sovereign derives no warrant from the ancient laws or institutions of the Hindus,[1] and is not recognized by modern Hindu lawyers as exclusive or incompatible with individual ownership. Similarly, with regard to Mohammedan law, Colonel Galloway summarized his conclusions as follows: 'The soil was the property of the cultivators as much as it could be. Law gave no power, policy gave no motive to remove him, to disturb him, so long as he paid his taxes. When he did not, his lands could be attached; and so can those of the first peer holding by the firmest tenure of the English law. The right of the Indian husbandman is the right of possession and of transfer; and the rate of his land tax was fixed;

[1] 'Land is his who first cleared away the jungle, as the deer is his who first brought it down' (Laws of Manu quoted by Baden-Powell, *Land Revenue and Tenure in British India*, p. 123).

often, indeed, the amount. In what respect, then is his right of property inferior to that of the English landholder?' [1]

What holds good of northern India and the practice of Mohammedan rulers, applies with greater force to the case of southern India, where the existence of private property in land was admitted even more unmistakably, especially in those parts of the country which never came under the Mohammedan yoke.

As regards the first two points, therefore, the Taxation Enquiry Committee are unanimously of opinion that under both Hindu and Mohammedan rule, the State never claimed the absolute or exclusive ownership of the land and definitely recognized the existence of private property in it.[2]

During the period that intervened between the death of Aurangzeb and the firm establishment of British rule in this country, provincial governors and adventurers seemed to have put forward all kinds of extravagant claims. And the tendency to rack-rent which was the characteristic of this chaotic period, made people less and less inclined to insist on the recognition of their private rights in land, their anxiety being rather to secure for themselves the freedom of relinquishing the land when they liked and thus escaping the revenue burden. The State thus put forward claims of exclusive ownership which the people did not care to contest. Therefore, Baden-Powell is probably right when he says: 'It is hardly possible that Mr. James Grant, and Colonel Munro and many others could have been mistaken about the fact that in their time (that is, the time of the Permanent Settlement of Bengal) all Governments did claim to be landowners.' [3]

However, weighing the historical evidence for what it is worth, we come to the conclusion that if we exclude the period of political confusion and disorder which immediately preceded British rule, private property in land was firmly established and acknowledged by the rulers. Of course, we do not forget the fact that at no time was India under a single undisputed ruler, and as the country was split up into a number of small states each with its own history, we

[1] *Taxation Enquiry Committee Report,* par. 80.

[2] See also Briggs, *Land Tax in India,* p. 127.

[3] The property right of the Crown in land is said to have been definitely asserted by Tippu Sultan. On the other hand, Mountstuart Elphinstone reporting on the *mirasi* tenure under the Marathas wrote as follows: 'A large portion of the ryots are the proprietors of their estates, subject to the payment of a fixed land tax to Government; their property is hereditary and saleable, and they are never dispossessed while they pay their tax, and even then they have for a long period (at least thirty years) the right of reclaiming their estates on paying the dues of Government' (see *Report on the Territories Conquered from the Peshwas*).

cannot assert that in every case the tradition of private ownership was definitely established, and if we are going to decide the claims of the British Government according to the pretensions of all the former rulers whom they ousted, we shall have to say that the British Government have entered into a series of different heritages with regard to their interests and rights in land. But broadly speaking, the position was as we have stated it.

There is, however, no reason why the practice followed by previous Governments should tie the hands of succeeding Governments. From this point of view, we should have to examine the claims put forward by the British Government themselves. But the British claims have neither been consistent nor uniform, although the general trend of their policy can be shown to have been towards admitting private ownership in land. Referring to the cultivated land in villages and estates (not the waste land nor the particular lands of which Government are admittedly the immediate owners), Baden-Powell observes that the British Government have everywhere conferred or recognized a private right in land, and in large areas of the country (Bengal, Oudh, the whole of northern India, for example) they have expressly declared the proprietary right of the landlords and the village owners.[1] It is therefore impossible any longer to put up a general claim that what the State has been taking as land revenue is really a rent from the landholders regarded as its tenants.

It is generally agreed that, so far as the zemindari or landlord estates in Bengal and elsewhere are concerned, private property in land is beyond dispute. On the other hand, it is equally beyond dispute that Government have full proprietary rights on waste lands and over the *khas mahal* estates, such as those in Bengal and Bihar which are under the direct management of Government. It is with reference to rayatwari lands that opinion is somewhat sharply divided. On the one hand, it is held that the position of the ryot or 'occupant' as he is called in Bombay is not essentially different from that of the zemindar, and that he holds land as full proprietor subject to the proviso that he pays the revenue assessment The fact that Government can take the land into their possession if the holder fails to pay the assessment does not prove that he has any the

[1] This has, however, been sometimes officially disputed. It is urged that even in Bengal, the zemindars have not been granted complete proprietary rights; that the Permanent Settlement was granted to them as a grace which was considered good policy; that it was not founded on the principles or practice of previous native Governments; and that, apart from the unalterable assessment, Government still remain proprietors and the zemindar, an agent for collecting revenue, or a tenant under Government.

less right of property in it. For this is by no means an uncommon proviso and it applies in the case of all private property, which Government can attach in the event of default. The utmost that we can say is that Government regard the land as hypothecated to themselves as security (in the last resort) for the land revenue assessed on it.[1] One of the features which distinguishes rayatwari from zemindari lands, is that the former can be relinquished at the option of the holder. This, however, appears to be too slender a basis for the theory that the State is the real landlord in rayatwari areas. This feature, like the term 'occupant', owes its origin to times when the cultivator, harassed by exactions and oppressions, was reluctant to be tied down to his land and made unconditionally responsible for the payment of the revenue demand. The option of relinquishing the land was a concession to the natural fears of the cultivator and was not due to any intention on the part of the British Government to withhold the right of ownership from him which, in fact, they were anxious to confer. Another point urged in favour of the theory of State ownership is that, in some provinces, agricultural land cannot be put to non-agricultural uses without the permission of Government and is further liable to revised assessment when such use is allowed. But this may be regarded as one of those restrictions on the use of private property, for example, restrictions imposed in the interests of public health, which are common in all civilized countries. We may, therefore, endorse the view expressed by the Taxation Enquiry Committee that both the zemindars and the ryots are possessors of proprietary right subject to the payment of land revenue, though in the latter case, it is not possible to arrive at an exact and general definition of the position of the landholder.[2] We may also refer to another view, namely, that the Indian conception of land tenure is a compromise between the English theory of absolute property in land on the one hand, and the extreme of State ownership on the other hand. It is neither wholly the one nor the other, but something betwixt and between. The position may be described as restricted Government ownership or restricted private ownership. The landlord's or ryot's title is acknowledged, but subject to the limitation of the State's joint interest or concurrent right in land, and in northern India subject also to the claim of the tenants to semi-proprietary rights such as that of fixity of tenure.[3]

28. **Land revenue: a tax or rent?**—If private ownership of land is granted it seems to follow logically that the land revenue is a

[1] See Baden-Powell, *Land Revenue and Tenure in British India*, p. 49.

[2] *Taxation Enquiry Committee Report*, par. 83.

[3] Sir T. Morison, *The Industrial Organization of an Indian Province*, p. 18.

tax and not a rent. All the arguments advanced for or against State landlordism have by implication the same amount of cogency (or the lack of it) in deciding whether land revenue is a tax or a rent. We may, however, mention some additional points specifically brought forward in connexion with the tax or rent question.[1] It is argued, for instance, that land revenue differs from a tax and is akin to rent in that it cannot be altered according to the exigencies of the State during the long period for which it is fixed, and in the concessions granted to land revenue payers, such as rent-free, house sites, the use of common grazing lands, etc. As against this, it may be urged that there is nothing to prevent the State from revising the rent annually except considerations of policy, expediency and economy. Further, it must be remembered that rentals on private lands are not necessarily fixed for a long term of years. In fact, it is notorious that many of the leases are renewable every year.[2] As regards rent-free house sites, common grazing lands, etc., all these concessions do not appear to us to be of a very important and decisive character in the present discussion. The Government, in their capacity of an enlightened State, and as concerned with the welfare of the cultivators, may well grant facilities of this kind without thereby establishing the right of landlordship. A further somewhat trivial argument in support of the view that land revenue is a tax is that the process of its assessment and collection is similar to that in the case of a tax.

It is sometimes urged in order to prove that land revenue is not a tax that 'whatever the position was originally, the Government demand has in great many cases been amortized in the purchase price when lands have changed hands, and no longer operates as a tax on present holders'. We fail to see the bearing of this contention on the nature of the land revenue. It merely shows that the land revenue is amortized without answering the question whether it is a rent or a tax. The process of amortization is familiar in the case of other differential taxes on capital goods

[1] See *Taxation Enquiry Committee*, pars. 44-5.

[2] Another answer is made by pointing out that there are many functions of a landlord which the State does not perform. This argument, however, seems to be of little use for the purpose for which it is advanced, because it may be quite legitimately urged that the State does, at the present time, perform certain functions which were discharged in the old days by the private landlord, namely, the preservation of peace and security and the protection of the cultivators. It also makes permanent improvements such as the construction of irrigation canals, drainage-cuts, railways, etc. Nor can we dispute State landlordism merely on the ground of omission on the part of Government to execute functions attaching to the position of a landlord, for there are many private landlords who merely enjoy rents without performing any correlative landlordly functions.

where we merely say that the tax has been paid once for all by the seller in the shape of a reduction of price equal to the capitalized value of the tax; we do not say that the levy is, therefore, not a tax, but something else. Besides, complete amortization cannot occur because of the impossibility of foreseeing all future increases of assessment.

Lastly, we may refer to another argument which has been advanced in favour of private proprietorship of land. The Income-Tax Act of 1886 exempted agricultural incomes and this, it is said, amounts to an implicit admission that landed incomes already pay a tax. If land revenue had been a rent, that is a payment to Government as landlords in recognition of their ownership, a further tax would have been justified.[1]

The above discussion shows that the whole question is highly complicated and does not admit of a categorical answer one way or the other, although the case for private ownership is very much stronger than that for State landlordism. We agree with Baden-Powell's verdict that the controversy is a 'profitless war of words'. It is profitless because it is endless. There are arguments for and against each of the rival theories, and some people would be impressed by one set of arguments and others by the opposite set, and this not necessarily owing to any conscious bias on either side. It is also profitless because no important question of actual practical policy at present in debate seems to depend on how it is settled, and it is the practical aspects of the matter that are important rather than the technical juridical position. If land revenue is not so limited as to leave the proprietor something beyond the barest necessaries of life, the full and unconditional admission of the ryot's proprietary right in his holding is worth absolutely nothing to him, just as, if all his present rights in land, of sale, mortgage, etc., are left intact and Government assessment is moderate, it does not matter to him if Government formally consider themselves as the universal landlords. Let us illustrate by a few instances the position that the whole discussion is of little practical importance. For example, the question of legislative control on the executive in the

[1] We must state, however, that this argument is not conclusive in favour of private ownership, because it is quite possible to argue that agricultural incomes are exempted from taxation, as the number of cultivators in the enjoyment of incomes above the free minimum income-tax limit, after paying Government land revenue, is comparatively small, and that it is not worth while trying to tax them; or secondly, it is open to Government to explain that the failure to assess landed incomes to income-tax is a mere omission which they may offer to remedy at any moment; and lastly, it may be pointed out that in England, in addition to the land tax, income-tax on agricultural profits is paid, but this does not render private property in land open to dispute there.

matter of land revenue has practically nothing to do with the question whether Government are the proprietors of the land. Even if the State were the landlord, the State does not mean merely the executive. How far one part of Government, namely, the legislature, should be allowed to interfere with the discretion of another part, namely, the executive, is entirely a matter of administrative convenience and efficiency, and it may quite well be argued that, since the land revenue system touches the well-being of millions of people in this country, a more stringent control over it on the part of the legislature is desirable. It is true that in a fully responsible Government all taxes are necessarily voted by the legislature, but this does not mean that no other charges than taxes proper can be voted similarly. The utmost we may grant is that the case for legislative control is somewhat reinforced by, without positively requiring, the hypothesis that land revenue is a tax and not a rent.

Again, it is sometimes said that if we admit State landlordism we would have to admit also the right of the State to exact the full economic rent.[1] But this is a consequence from which we cannot altogether escape, even if we prove to demonstration that the State is not the landlord, because it is a universally accepted maxim of taxation that theoretically the whole of the economic rent may be absorbed in taxation without in any way hurting the taxpayer, provided we can be quite certain that we have isolated the economic rent (the real unearned increment) and not included in it other elements, namely, wages, profits, and interest. The practical results will not be very dissimilar whether we profess to apply canons of rent or canons of taxation to the assessment of land revenue. This is seen by the fact that the Government, without definitely committing themselves to the view that land revenue is a tax and not a rent, saw no harm in instructing the Taxation Enquiry Committee to study the incidence of land revenue and to point out any defect in the system *from the standpoint of the canons of taxation,* and even to suggest a complete change of system if necessary. As

[1] One of the lessons which V. G. Kale would draw from the Bardoli Enquiry Report is the practical importance of the discussion of the question whether the State or the individual is the landlord (see 'A Lesson from Bardoli', *Indian Journal of Economics,* July 1929). The Bardoli muddle was the result of a perfunctory attempt to apply in practice the rental value and revenue index theory of F. G. H. Anderson, the late Settlement Commissioner of Bombay, and Anderson was a whole-hearted believer in the Ricardian theory of rent. This much may be granted. But we have yet to learn that the Ricardian theory of rent even in its most undiluted form rests on any assumption regarding the State ownership of land. Anderson himself declares that 'land revenue is due to the State quite independently as to who "owns" the land' (*Facts and Fallacies of the Bombay Land Revenue System,* p. 142).

regards arbitrary enhancements of assessment or rack-renting, no civilized State will think of justifying this species of oppression on the ground that it is the landlord and is, therefore, legally entitled to charge what it likes for the use of land. The State cannot afford to stand merely on legal rights; it must be prepared to be judged by moral standards, and the Government in this country have rarely, if ever sought to dispose of complaints about excessive assessment merely by taking shelter behind the theory of State landlordism. They have generally tried to argue, whether successfully or not, that the land revenue is not really as burdensome as alleged by its critics. Even supposing that the State is the landlord, we must expect it to behave at least like an enlightened landlord, and therefore, in its own ultimate interest, it should regulate the land revenue in such a manner as not to trench upon the legitimate profits of the cultivator and reduce his incentive to work or lower his efficiency. A benevolent and enlightened landlord would not, for instance, exact a rent from uneconomic holdings. He would rather consolidate the holdings and would charge rent only when they are of such a size as to pay the costs and leave a surplus. The case for exemption of uneconomic holdings can, therefore, be argued quite as well on the assumption of Government landlordship as otherwise. The policy of a moderate levy receives further support from the consideration that the State has no interests separate from those of the people. The State serves itself best by serving the people because the State is the people.[1]

In connexion with this controversy, it is worth while pointing out that there is an agreement on certain fundamental matters between people taking different sides in it. For example, although Government have sometimes coquetted with the theory of State landlordism, their actual policy has been to foster the development of a strong sense of individual ownership, and they have generally been in cordial agreement with the view that it would be dangerous to do anything to disturb it. Even the Bolsheviks have been compelled to allow private ownership in land for fear of provoking revolt. They could defy everything, but they could not defy 'the colossal institution of the private property of the poor'.[2] The

[1] The presence of an alien bureaucratic Government, not till recently amenable to popular control to any appreciable extent, has helped this false antithesis between the State and the people. The gradual democratization of the constitution may be expected to lessen the insistence on the notion that there is an inevitable clash of interests between the State and the people (cf. Anderson, op. cit., p. 53).

[2] Irvine, *The Making of Rural Europe*, G. K. Chesterton's Introduction, pp. 8-9.

average unsophisticated cultivator in India has no doubt whatever in his own mind that, so long as he is free to sell, lease, mortgage and inherit landed property—rights which the most extreme advocates of State landlordism in India are not prepared to disturb—Government landlordship, if he has ever heard of such a thing, is merely an empty name, and he will not tolerate any serious interference with his present rights on the part of Government.[1] It is also generally agreed that in considering the incidence of taxation, land revenue should be regarded as a tax, and the Taxation Enquiry Committee endorse this view on the ground that land revenue 'forms a deduction from the national dividend, although we are divided in opinion as to whether or not the land revenue should be considered as a tax.'[2] This gives an authoritative reply to the view, which has sometimes been expressed, that land revenue, being a rent, should not be taken into account in calculating the burden of taxation in this country.

Further, all important questions of land revenue policy, such as the pitch of assessment, period of settlement, etc., can be and are being discussed without any sustained reference to the controversy as to whether land revenue is a tax or rent. In these circumstances, we are of opinion that it would be an act of political wisdom if Government were to declare in unmistakable terms that they fully recognize private property in land and abandon all pretensions to universal landlordism. We believe that, while this would set at rest much futile and embittered discussion and make assurance doubly sure in the minds of the people, the admission need not in any way be inconvenient from the fiscal or any other point of view.

29. **Permanent versus Temporary Settlement.**—The great distress from which large numbers of the people suffered in India, owing to the serious and widespread famines which visited the country towards the close of the last century, attracted attention to the land revenue policy of Government, which was criticized generally and province by province by the late Mr. R. C. Dutt, who along with certain retired European members of the Indian Civil Service presented a memorial on the subject to the Secretary of State. A little previously to this (1900) Mr. Dutt had also addressed his 'open letters' to Lord Curzon, whose Government

[1] 'The ryot in Mewar is supposed to have ever in his mouth the common though expressive adage *"Bhogra dhanny raj ko, bhoomra dhanny maj ho"*—"the tax belongs to the king, the land belongs to me" '—Briggs, *op. cit.*, p. 90. This attitude is not peculiar to the cultivator in Mewar but common to the ryot in all parts.

[2] *Taxation Enquiry Committee Report*, par. 84.

published an important Resolution in 1902 replying to the criticisms and outlining their general policy after considering the reports submitted by the Provincial Governments.

One of the points urged by Mr. Dutt was that if Permanent Settlement had been introduced forty years previously, that is, when its extension was proposed by Lord Canning in 1860, India would have been spared the 'dreadful and desolating famines' of the close of the nineteenth century. Mr. Dutt attributed to Permanent Settlement the prosperity of the Bengal ryots, their resourcefulness and greater resisting capacity in years of bad harvest, the promotion of agricultural enterprise, investment of private capital and its accumulation and devotion to useful industries, public institutions and works. Although Permanent Settlement does not now count as many adherents as it once did either among officials or non-officials, it is not altogether a dead issue yet. For example, a number of witnesses who gave evidence before the Bombay Land Revenue Assessment Committee (1924-5) declared themselves in favour of Permanent Settlement. It would, therefore, not be amiss if we were to set out briefly the arguments for and against it with particular reference to its operation in Bengal.

Those who uphold it contend that it has been brilliantly successful in Bengal. (i) Financially, they say, it has ensured to the State a fixed and stable revenue without the necessity of incurring heavy expenses in connexion with periodical re-assessments and collection. (ii) Politically, it has secured the loyalty of the zemindars. (iii) Socially, it has enabled the zemindars to act as the natural leaders of the ryots and to show their public spirit in a practical manner by helping the spread of education and sound ideas on sanitation, and in other ways. (iv) Economically, it has secured agricultural enterprise and prosperity and a resourceful peasantry, which has shown a remarkable power of resistance in times of scarcity. (v) Lastly, Permanent Settlement has avoided the evils associated with Temporary Settlements, such as the harassment of the cultivator at the time of revision, the expensive machinery required for re-settlement, the tendency of land to deteriorate towards the end of the term of settlement, due to deliberate neglect on the part of the cultivator so as to escape enhancement of assessment, impediments to industry and improvements, and the concentration of arbitrary power in the hands of revenue officials not liable as yet to legislative and judicial control.

(i) The most obvious as well as the most important argument against Permanent Settlement is that it involves the sacrifice on the part of the State of all prospective increase of revenue from land.

The advantage of a fixed and stable revenue is secured at too great a cost. To understand the full force of this contention, it need only be mentioned that, whereas at the time of the introduction of Permanent Settlement in Bengal the gross rental was approximately 4½ crores of rupees, the estimated figure for 1900 was 16½ crores of rupees.[1] And if we allow for the subsequent rise in prices, we will have to take a very much higher figure for the present time, and yet the State continues to derive a fixed amount of revenue in terms of rupees representing, of course, a much smaller purchasing power than in 1793. This is to-day a tremendous handicap to the Bengal Government and inhibits State activity in many directions in which it is required. The expectation that, as a result of Permanent Settlement, other sources of State income would grow, has not been realized to anything like the extent hoped for. The community has thus been deprived of its legitimate right to share in the increasing prosperity of the zemindars, which is largely not the direct result of the landlords' own efforts, but is due to social factors beyond their control, such as the growth of population, improved communications, rise in prices, etc.[2] (ii) The political argument that Permanent Settlement has secured the loyalty of zemindars has clearly lost whatever value it once possessed in the past. Moreover, it must be remembered that the landlords as a class in the provinces where perpetual settlement was not granted have been thoroughly as loyal as in Bengal. (iii) As regards the hope that was entertained about a powerful class of wealthy and benevolent landlords acting as the natural leaders of the ryots and exerting themselves for their uplift, it is generally recognized that this has not been realized. On the contrary, 'while there are many worthy, liberal-minded and enlightened landlords in Bengal—as there are also in other parts of India—the evils of absenteeism, of management of estates by unsympathetic agents, or unhappy relations between landlord and tenant, and of the multiplication of tenure-holders or middlemen between the zemindar and the cultivator in many and various degrees, are at least as marked and as much on the increase there as elsewhere.' (iv) As to the prosperity of Bengal being due to Permanent Settlement, it is argued that it is due to quite other facts, such as the protection which the tenants enjoy from the operation of special tenancy laws, the comparative immunity of Bengal from uncertainties of climate, the excellent means of communication, the

[1] *Land Revenue Policy of the Government of India*, p. 46.

[2] For a discussion of some consequences of the Permanent Settlement in Bengal, see *Simon Commission Report*, pars. 381-2.

practical monopoly of jute which it enjoys, and the trade and enterprise which flow from Calcutta. This view, however, was vigorously challenged by Mr. Dutt who, while admitting that the tenancy laws were needed to complete and confirm the good work done by the Permanent Settlement, protested against the official suggestion that the Permanent Settlement did no good whatever until the tenancy laws were passed, and cites the authority of distinguished statesmen like Lords Wellesley, Minto, Hastings and others against it. (v) Lastly, as regards the allegation that a revision settlement is attended with much dislocation of village economy and considerable harassment to the cultivator, it is argued that the work of revision is now effected with much greater ease and rapidity than was formerly the case, thanks to the long experience that has been gained. The system of land records, the preservation of boundaries, and a more or less permanent classification of land have greatly reduced the volume of work and fresh investigation at the time of each re-settlement, which, moreover, comes at long intervals generally varying from twenty to thirty years. Therefore, the disturbance in the rural economy is the minimum possible, and there has been latterly considerable economy in the expenditure incurred by Government. An attempt is also made to eliminate petty underlings and to entrust the major portion of the necessary inquiry to responsible and highly placed officials, who are sympathetically inclined towards the cultivator. Further, private improvements are protected against enhancement of assessment either permanently or for an adequately long period, so that the fear of enhancement of assessment need not deter the cultivator from undertaking improvements. It is also claimed that the rigidity of collection which is almost a corollary of Permanent Settlements has been avoided in the system of Temporary Settlements by an increasingly liberal operation of the rules in regard to the suspension and remission of land revenue. Thus, the present-day Temporary Settlements are claimed to possess many of the good features of Permanent Settlement without its drawbacks and to achieve a happy compromise between the legitimate claims of the State and the rights and convenience of agriculturists.

The official view with regard to Permanent Settlement to-day is that the question of its extension to the areas temporarily settled at present is unthinkable. As Lord Irwin said a few years ago, since Cornwallis's time India's place in commerce and the markets of the world and the growing intricacy of her financial and social problems have brought many new factors into the picture necessitating elasticity of public revenue and expenditure. Government are being constantly asked to undertake new tasks and improve old ones. But

this requires greater and greater command of funds, and it would therefore be impossible for the State to forgo its legitimate share of the increment in the value of land. While we hold that the present systems of Temporary Settlement are by no means perfect, we not only endorse this view, but, with Dr. R. P. Paranjpye, would like Government to make an effort to revise the system of Permanent Settlement in Bengal and elsewhere, to secure fairness in the distribution of the tax burden and elasticity of revenue.[1] If it is objected that this reform would involve the violation of a solemn pledge and contract, it may be replied that, after the lapse of a century and a quarter, the original contract has lost its meaning and ceased to be equitable, and that vested interests must not be allowed to prevail indefinitely over the common good. 'The promise given was a necessity of the past; the word broken is a necessity of the present.' This is one of Machiavelli's maxims expressed with characteristic frankness, but nobody will deny that it has a core of sound practical wisdom, especially when we reflect that 'the past' and 'the present' we are now thinking of are separated by a long and eventful interval of over a century.

30. **Term of settlement.**—There is a considerable diversity of opinion as to whether the term of settlement should be as short or as long as possible. There are some who advocate as brief a period as ten years, and others would like to see it extended to no less than ninety-nine years. The argument in favour of a short period is that it enables the State and the community to benefit by absorbing their proper share of any unearned increment which general progress may have brought into existence—an argument particularly applicable to those tracts where the economic resources are fast developing—and that, on the other hand, in the event of declining rents and prices, it makes possible a lowering of the assessment and speedy relief to agriculturists. It has also been urged that short-term settlements excite less discontent by making the people familiar with more frequent but small increases than the large enhancements that are likely to come at the close of too long an interval. On the other side it is pointed out that long terms of settlement are less disturbing to the revenue payer and have the advantage of increasing the resources of the people and enabling them to make improvements without fear of having to forgo the benefit from them on account of higher assessment. Assuming a well-conceived and scientific system of assessment, the period of settlement would depend on a balance of these opposing considerations, and it is impossible to say off-hand with precision that a particular period

[1] See *Taxation Enquiry Committee Report*, pars. 87-8.

and no other is the ideal period. The general feeling in the country is in favour of a long term and, short of Permanent Settlement, an increase in the period of revision is popularly regarded as a step in advance. The Bombay Land Revenue Assessment Committee pleading for the period of thirty years observe: 'Thirty years is a generation in the life of the agriculturist. If he knows at the beginning of this period that his assessment is subject to an enhancement at the hands of Government, he has ample time to assimilate his expenditure and his mode of living generally to the ratio of assessment he is called upon to pay, while if in the course of the settlement period the value of his land increases, prices show a steady rise, and facilities of markets and communications improve, his economic condition is such that he can prepare himself for a reasonable enhancement of rent at the succeeding revision settlement.' Mr. Anderson objects to such a long period as thirty years, because *inter alia,* combined with the thirty-three per cent enhancement rule, it prevents steps being taken to remedy one of the grave defects of the Bombay system, namely, that it does not take a uniform share of the profits of cultivation everywhere alike. Profits or rents increase faster than the land revenue can increase at the maximum rate of thirty-three per cent every thirty years.[1]

31. **Principles of assessment.**—As we have already seen in our survey of the different settlements in India, there is no single system of clearly recognized and consistently applied maxims of assessment of land. The basic principles differ from province to province, and they are further modified by the introduction of a number of miscellaneous factors, and a large amount of discretion is allowed to the Settlement Officer. While, in the United Provinces, the Punjab and the Central Provinces, the theoretical basis of assessment is the economic rent, and in Madras and Burma, the net produce, Bombay until lately did not even profess to have any definite principles of assessment and follows a frankly empirical system depending upon general economic considerations as they impress the Settlement Officer.

32. **Rental value as a basis of assessment.**—The attempt recently made to use rental value as the principal basis of assessment in Bombay has been the centre of fierce controversy. As the issues raised in this controversy are of more than purely local interest, some space may be devoted here to their examination. The reliance on rental statistics for affording an indication of profits of agriculture has been advocated on the ground that the method

[1] *Facts and Fallacies of the Bombay Land Revenue System,* p. 109.

is more definite and precise[1] and that it enables the operations of the Settlement Officer to be checked more effectively than any of the other alternative methods depending upon crop experiments, prices, development of communications, etc.[2] But the recent Bardoli imbroglio has proved that rental statistics, unless used with great caution, are apt to lead to serious error and intolerable over-assessment. Actual rents may be very much higher than true rental values for a variety of reasons. There may be excessive competition among tenants; the landlord may be the creditor and the tenant the debtor, and the latter may be compelled to agree to an impossible rent; the rent may represent interest on money lent and may have no relation to the productivity of the land; figures of rent may relate to a period of boom and therefore be unreliable as guides for normal times; the rent agreed to may be on the basis of what the tenant can pay in a prosperous year and subject to substantial reductions in bad years; it may be paid largely out of income earned not from the land but from other sources; the proportion of lands leased for cash rents is much higher in the case of industrial crops like cotton than in the case of food-grains and will naturally bulk largely in the rental statistics, and although not typical, they are apt to be treated as such; occasionally fancy rents may be paid by a cultivator for land which has practically nothing else to recommend it except that it is adjacent to his land; only a very small fraction of the total amount of land in the tract under settlement may be leased for cash rents and although rental values may, to some extent, be inferred from sale transactions (provided these are normal and not affected by any disturbing factors), the direct and indirect data thus collected may nevertheless

[1] Mr. Gadgil suspects that the adoption of 'rental value' as the basis of assessment in Bombay is 'a surreptitious attempt on the part of Government to establish their claim that land revenue is rent and no tax' (see his *Bombay Land Revenue System*, p. 7). This is very far-fetched and carrying suspicion to the point of positive obsession. The practice criticized is merely an attempt—successful or not—of using private rents as an index of profits of agriculture. Moreover, in the zemindari tracts of northern India temporarily settled, rental value is the principal basis of assessment, and yet Government have here recognized private proprietary rights in land in more certain terms than in rayatwari tracts.

[2] 'Tell your Settlement Officer that rents should be "taken into account", and he will languidly collect a few and then in his recommendations rely rather on the other vague and fluffy guides because it is far harder to be caught out so long as you see only vague generalities. But tell him he is to rely mainly on rents and not fall back on general considerations except for corroboration or for guidance where the rents are faint and inconclusive and then you will get a just and sound settlement.'—Anderson, *Facts and Fallacies of the Bombay Land Revenue System*, pp. 85-6.

be too inadequate for safe generalization.[1] In the words of the Bardoli Committee *Report*, 'a very wide margin must always be allowed for the eccentricities of the raw material,' and the rental figures need to be subjected to a close scrutiny before being used for drawing inferences on which assessment is to be based. It may be conceded that rental data, if collected with proper care, tabulated in a manner which brings out their real significance and used with due reference to the meanings of the underlying transactions, afford almost the only positive evidence that could be used with confidence in revising the assessment. Every effort should, therefore, be made to collect trustworthy rent and sale statistics and compile them carefully.[2] But the task of judging the suitability of any given body of statistical and other information for the purpose of revising assessment must be entrusted not to the Settlement Officer or other Government officers but to a competent advisory committee, for which there has been latterly an insistent popular demand. Further, even where the statistics of rental value appear to be fairly satisfactory in quantity as well as in quality, their indications should be tested with reference to other factors such as communications, market prices, economic conditions, crop experiments, etc. on the lines recommended by the Bombay Land Revenue Assessment Committee. It will be in very rare cases that such corroboration of rental data can safely be dispensed with. The Land Revenue Amendment Bill recently drafted by the Bombay Government gave rental value 'the sole place in the picture'. But having regard to the violent prejudice against this method aroused in consequence of the Bardoli muddle, the Government wisely dropped the old bill and announced their decision to introduce a new bill on sound and progressive lines which will incorporate the important lessons learnt from the Bardoli inquiry. The bill is, however, has not yet come before the Legislative Council.

33. **Ricardian theory in relation to the land revenue in India.**— As we have seen above, the principles governing assessment vary from province to province so far as their formal statement is concerned. The general claim of Government, however, is that, in the net result, the land revenue forms everywhere in British India a certain moderate proportion of the economic rent. This is clearly not the case if we take into account the large number of uneconomic holdings, the existence of which is not disputed by Government.

[1] For a fuller discussion of these points, see *Report of the Bardoli Revision Settlement Enquiry Committee*, pars. 29-38; also Gadgil, *Bombay Land Revenue System*.

[2] See *Report of the Bardoli Revision Settlement Enquiry Committee*, par. 38.

Here, as Professors Wadia and Joshi remark: 'The land tax is not the appropriation of the unearned increment of the soil, it is the appropriation of the bare minimum of subsistence left to the cultivator.'[1] In other cases, if in actual practice no more than the pure economic rent is taken, this could come about only by accident and not by design, since, in calculating the so-called surplus, not all the elements entering into the cost of production are deducted from the gross value. For example, the labour of the cultivating proprietor and his family is not allowed for in every case. Actual rental values on which the revenue rates are based, for example in northern India, are apt to be very much higher than the true economic rent in a country where agriculture is practically the sole occupation of the people and where there is no competition as between a variety of occupations for the available labour and capital. The cultivator sticks to the land although he may have to pinch and starve in order to pay an excessively heavy rent. 'With alternative occupations in the shape of industry and handicrafts, there can be doubt that a large number of holdings cultivated under the pressure of necessity to-day would be thrown out of cultivation.'[2] Rental values are also unreliable as indices of economic rent because the land hunger due to pure economic necessity is further strengthened by the traditional sentiment in favour of investment in land, a sentiment which can weaken only when there arise a variety of equally safe alternative openings for the investment of capital through the development of industry. The economic rent in the Ricardian sense bears no certain and definable relation to the assessment, though we are not prepared to say that in every case the land revenue impinges on income that is not unearned. Nor can we accept the contention that merely because land revenue is the first charge on the produce of the soil, it cannot be part of the economic rent,[3] which latter, according to the Ricardian theory, is the last charge on the produce. Because, when we say that economic rent is the last charge, we are not thinking of the sequence in time of the different payments but the sequence in the economic analysis of rent. Just as wages, although they ultimately come out of the produce due to labour, are yet paid in advance, similarly the rent charge may be realized before the surplus accrues, although in anticipation of its accruing. The true line of criticism would be to point out that assessment is sometimes charged and exacted when there is no chance of a surplus, and that it is not refunded or excused when the expectation of a surplus, however just, is not actually realized. The system of

[1] Wadia and Joshi, op. cit., p. 281. [2] Ibid. [3] Ibid.

suspension and remission of revenue cannot be guaranteed to operate, and does not in practice invariably operate, so that the assessment should in no case trench upon any portion of the gross value which is not the true economic rent or unearned income.

34. **A new basis of assessment.**—The Taxation Enquiry Committee recommend that hereafter a uniform basis of annual value should be adopted in every province, and that the function of the Settlement Officer should be confined to the determination of the annual value under such conditions as may be required by the special circumstances of each province. By annual value they mean 'the gross produce less cost of production, including the value of the labour actually expended by the farmer and his family, and the return for enterprise'. In the case of rents controlled by tenancy laws, or by custom having the force of law, or where the rent is fixed by the Settlement Officer, it is recommended that such rent should be taken to be the annual value. The plan of annual value seems to be an improvement in the right direction, as it will put an end to the vagueness of the principles of assessment prevalent at present. Annual value, as we understand it, is not the same thing as actual competitive rental value which may be either too high—for example, if the competition among the tenants is excessive owing to absence of other occupations and the tradition and force of sentiment in favour of agriculture—or in rare cases it may be too low where, for example, tenants and landlords conspire and deliberately depress rents in order to escape their proper share of the burden of assessment. The basis of annual value is also more scientific, inasmuch as it allows for the labour of the cultivator and his family and also for return for enterprise.

35. **Rate of assessment: a recommendation.**—As regards the proportion of the annual value to be taken, in imitation of the example of other countries, the Taxation Enquiry Committee recommend the adoption of a comparatively low standard rate which should not exceed twenty-five per cent of the annual value. As there would be difficulties about the immediate adoption of this recommendation owing to the absence of definite information as to the percentage of annual value actually taken in the various provinces, they suggest a preliminary expert inquiry for ascertaining the rate at present exacted, before a common rate for each province is fixed by its legislature.

In addition to the standard rate, taxation for local purposes by local bodies is also recommended by the Committee, and it is further suggested that the maximum for the ordinary local rates should be in the neighbourhood of twenty-five per cent of the land revenue. Having regard to the fact that the local bodies would be composed

largely of agriculturists and landlords, and the fact that the proceeds of the local rates would be spent on matters connected with the improvements in the locality itself, it is anticipated that the sacrifice would be less reluctantly made than if it were imposed in the form of an enhancement of land revenue utilized for general purposes by the Government. The system of local rates super-added to a flat standard rate on land has been found to work satisfactorily in most European countries where it is in vogue.

36. **What should be the limits of enhancement?**—In order to prevent too sharp an enhancement of the assessment, some further limit would seem to be needful. And we approve of the recommendation of the Bombay Land Revenue Assessment Committee to the effect that the limit of enhancement should be a general all-round limit of twenty-five per cent without distinction between groups, villages or holdings as at present, provided that the talukas in question have already undergone a second revision.

37. **Application of principles of taxation to land revenue.**[1]—(i) The first canon of taxation, namely, that of certainty, may be said to be satisfied, land revenue being fixed for the period of the settlement. The cultivator knows exactly what he has to pay, although in so far as the basis of assessment is still vague, there is an element of avoidable uncertainty at the time of revision of assessment. The introduction of a uniform basis of settlement as suggested above will largely remove this source of uncertainty. (ii) The next canon is that of convenience. In order to satisfy this, the land revenue is collected, as already shown, in instalments suitable to the cultivator. There is, however, a certain amount of sacrifice of the principle of convenience to that of certainty, because the settlements are based on averages, the actual assessment fixed representing an average of what may be fairly demanded in good and bad years taken together. The assumption is that the agriculturist would save up during years of good harvest in order to meet the deficiency in bad years. This assumption, however, is not true to facts. Consequently, the average assessment is felt to be too rigid and oppressive in years of scarcity. The system of suspension and remission of revenue, as we have already remarked, is not worked with sufficient elasticity,[2] and according to the Taxa-

[1] See *Taxation Enquiry Committee Report*, pars. 86-9.

[2] With a view to imparting greater elasticity to the collection of assessment, a very complete maintenance of statistical records in reference to the yields, the expenses of cultivation, etc., is necessary. The Bombay Government have recently announced their intention of devising machinery for securing this and also of keeping the records open to public scrutiny before being finally compiled (speech of the Revenue Member in the Bombay Legislative Council, 1 August 1929).

tion Enquiry Committee, the inelasticity of the land revenue system has driven a large number of people to the moneylender during bad seasons. Another source of inconvenience, it may be said, arises from the long term of the settlement. The cultivator adjusts his standard of living on the basis of the land revenue he has to pay during the currency of a settlement, and if the assessment is appreciably enhanced at the next settlement, he finds it difficult immediately to adjust his family budget accordingly, though the long-term settlement is granted on the assumption that he would get enough time to prepare himself for a possible enhancement.[1] An attempt is made to mitigate the hardship arising from this source by the progressive and graduated imposition of large enhancements, and also by limiting their extent.[2] The disturbance due to the process of re-settlement has been, as previously stated, reduced to a minimum by the gradual perfection of the system of land records, though in some cases this process may take years of meticulous inquiry to be completed.

(iii) As to the canon of economy, the heavy expenses on the revenue establishment that is maintained cannot be debited entirely to the work of assessment and collection of land revenue, much miscellaneous work of an important character outside the purview of land revenue proper being still discharged by the revenue agency.

(iv) As to the canon of ability, the official claim is that it is being increasingly satisfied on account of the progressive reduction in the share of the State. We have already given the figures in support of this contention. One of the results of the discussion about land revenue policy initiated by Mr. R. C. Dutt was the conversion of the standard rates into maximum rates.[3] The Taxation Enquiry Committee give figures showing how the tendency for the State's share to diminish has continued to operate from 1903 to 1924. During this period, while prices rose by 117 per cent, the land revenue rose by 20 per cent.[4] Besides, part of this rise in

[1] Cf. *ante*, p. 405.

[2] See *Land Revenue Policy of the Government of India*, pp. 38-40.

[3] Mr. R. C. Dutt suggested that the heaviness of land revenue assessment was one of the most important causes of the famines which visited the country during the last century, especially towards the close of it. As to the connexion between land revenue and famines, our views are analogous to those advanced in relation to the similar controversy regarding the connexion between land revenue and indebtedness. We hold that land revenue can only be regarded as a minor cause of famines, as it is of rural indebtedness, and for similar reasons.

[4] The heavy slump in agricultural prices in recent years, especially since 1929 October, has, however, rudely disturbed the tendency referred to by the Taxation Enquiry Committee.

revenue must have been due to the increase, of about 7 per cent, in the area shown.

As regards the incidence of land revenue, owing to the variations in the systems followed between province and province and even between one district and another, it is impossible to obtain any general idea. Five possible criteria may be applied, namely, (i) the ratio borne by the land revenue to the population; (ii) the ratio borne by the land revenue to the occupied area, that is the average assessment per acre; (iii) a comparison of the assessment per soil unit; (iv) the ratio borne by the assessment to gross or net produce; and (v) the ratio borne by the assessment to rents or annual value. The Taxation Enquiry Committee accept the last as the least unsatisfactory method, but, even in this respect, owing to the absence of full and reliable data, they are unable to arrive at any definite conclusion regarding the actual burden of assessment in the different provinces.

38. **Principle of formal justice.**—This principle is violated under the present system of land revenue because, in the first place, there are inter-provincial, and, as we have remarked, even inter-district disparities, and in the second place, incomes from land are differentiated for purposes of taxation from other sources.

(i) *Inter-provincial disparities.*—Taking the first point, the permanently-settled areas are at present obviously much more lightly taxed than those under Temporary Settlement. As regards the latter, in eleven districts recently settled in the Punjab, the percentage of land revenue to net rental varies from 19 to 36 per cent, within an average of 25. In the United Provinces, it varies from 20 to 42 per cent, with an average of 27. In the rayatwari provinces, in the case of Bombay, the percentage of assessment to rent varies from 17 to 50 in different parts of the Presidency. In Berar, in the case of two cotton talukas recently settled, the average is 10 per cent. In Madras, it is apparently in the neighbourhood of 17 per cent in half of the districts.[1] These figures are not absolutely accurate, but they are sufficiently reliable as indications of the existence of very considerable inequalities in the burden of assessment in the various provinces. The dictates of formal justice would be satisfied if the recommendation of the Taxation Enquiry Committee with regard to the adoption of a uniform standard of 25 per cent of the annual value as the share of the State were carried into practice.

(ii) *Land revenue compared with income-tax.*—Coming to the second point, a comparison between the land tax and income-tax

[1] See *Taxation Enquiry Committee Report*, par. 94.

discloses three striking differences as regards the manner of treatment of the two kinds of income. The first is that, in the case of land, there is no tax-free minimum[1] as there is in the case of income-tax, and the second is, that the percentage of the tax to the income is very much higher in the case of land revenue. The third difference, the only one in favour of the owner of land, is absence of progression. There are two ways of assimilating the two classes of taxes: one way is to make the income-tax conform in all particulars to the land revenue, and the other is to change the land revenue so that it resembles income-tax in every respect. The first course is not feasible, and would be a retrograde step because it would entail the abandonment of the sound principles of the exemption limit, and of graduation. Let us, therefore, examine the implications and the practicability of the second course and consider, in the first place, the effect of exempting incomes from land below the income-tax free limit of Rs. 1,000. This must at once be rejected as entirely visionary and impracticable at the present moment, because it would touch the financial solvency of the State; a similar conclusion will be forced upon us as regards the second difference noted above, and the principle of formal justice will have to be sacrificed to the principle of productivity or practical expediency. Even if the recommendation of the Taxation Enquiry Committee in favour of standardization of the land revenue at twenty-five per cent of the annual value, with additions in the shape of local rates, is given effect to, the percentage will be higher than in the case of non-agricultural incomes (if we exclude from this category a small number of very high incomes which are liable to pay a very heavy percentage by way of income-tax and supertax). The principle of progression may, however, be applied to land revenue, as in the more advanced European countries and Japan, where agricultural incomes are assessed to the income-tax[2] or are liable to death duties.[3]

[1] The fact that in theory the land revenue is taken only from unearned income can scarcely be regarded as compensating for the absence of a tax-free minimum. The range of agricultural incomes being generally very small, especially in rayatwari areas, most of them would escape taxation altogether if land revenue were fixed on income-tax principles as they stand at present.

[2] The proposal of Sir Walter Layton, Financial Assessor to the Simon Commission, to levy an income-tax on agricultural incomes, which are at present exempt from it, is discussed in the chapter on Finance in volume II.

[3] The Taxation Enquiry Committee, accepting the view of Dr. Gregory, consider that the land revenue is essentially a tax on things and not persons and that, therefore, it is not susceptible to the direct application of the doctrine of progression (*Report*, par. 89).

On the whole, therefore, a complete assimilation of land revenue to income-tax is not a matter of immediate practical politics, and for some time at any rate, the former will have to be treated for purposes of taxation as a thing *per se*. This, however, does not mean that it should for ever be allowed to stand outside the normal process of taxation. Land revenue as well as income-tax, which is by no means perfect as it stands at present, must be gradually modified till they both conform to the same principles of taxation. A sound tax must neither (i) remove or imperil any instrument of, or incentive to essential or useful processes of production, nor (ii) remove or impair any essential or useful element of consumption.[1] Obedience to these principles implies that only unearned surpluses, whether they arise from land or other sources, should be taxed, or, if both unearned and earned incomes have to be taxed, the latter should be taxed at a very much lower rate than the former.[2] The whole of the unearned income may theoretically be absorbed by the State, although only a certain percentage may be actually taken, so as to err on the side of safety and to allow for practical difficulties in the way of accurate calculations of the unearned income. The present system of income-tax is faulty because it taxes earned as well as unearned incomes at the same rate. The land tax is faulty in that it taxes the smallest agricultural incomes from holdings which are admittedly uneconomic. Again, land revenue is paid on all lands whether income is actually derived from them or not. Another difference between land revenue and income-tax is that the latter is levied on each individual on the basis of the income returned by him, whereas in the case of land revenue each single plot is not assessed separately, and owing to the method

[1] See J. A. Hobson, *Taxation in the New State*, p. 10.

[2] In the case of land revenue, the working of this principle may be illustrated as follows. Suppose the rates of taxation for earned and unearned incomes are regulated according to the principle that all earned incomes below Rs. 2,000 per year are to be exempted; that earned incomes over Rs. 2,000 are to pay at the rate of 5 per cent and unearned incomes at the rate of 50 per cent. Suppose that there is a fairly big landlord farming his land himself instead of leasing it out. After paying all the costs, excluding his own wages of management and interest on his capital, let us suppose his net receipts amount to Rs. 2,000, of which Rs. 1,000, represents the ordinary return on enterprise and capital, and the remaining Rs. 1,000, the true unearned surplus. His earned income being below the exemption limit, he would pay nothing on it and Rs. 500 on the unearned portion of his receipts. If the earned income is Rs. 3,000 and the unearned Rs. 1,000, he would pay oniy Rs. 150 on the former and Rs. 500 on the latter. The argument would be precisely the same if he lets his land on lease and takes so much 'rent' per year. The tax he will bear will depend on the proportion of earned and unearned income entering into the rent he receives.

of average which must necessarily be employed some plots may be over-assessed and others under-assessed. Further, in theory the land revenue is supposed to be a portion of a surplus, but obviously in the case of uneconomic holdings there is no surplus, and yet they are assessed to the land tax. This raises the question how far it is practicable to exempt from land revenue holdings which are below a certain size. Here again, we are up against the difficulty that an immediate exemption of all uneconomic holdings would involve Government in every great financial embarrassment. There is also another consideration, namely, that people have been used to the land tax in this form from time immemorial, and it is acquiesced in and paid without demur, and thus the injustice is not vividly felt by the taxpayer. At the same time, there is no doubt that if we wish to rationalize our system of taxation, uneconomic holdings will have to be exempted sooner or later,[1] and also earned incomes from land below a certain minimum identical with that which, under an improved system, may be deemed suitable for non-agricultural incomes.

One of the objections raised against the exemption of uneconomic holdings is that it would encourage subdivision, but we do not consider this objection as very forcible; the proper remedy for dealing with the evil of subdivision is to do so directly by suitable legislation and not indirectly by a manipulation of the land revenue system.

39. **Legislative control.**—The principle of legislative control of matters connected with land revenue is, it must be remembered, not novel in any sense in India. There has been already, in some provinces like Bombay, an attempt on the part of the legislature to regulate the administration of land revenue by special statute like the Bombay Land Revenue Code. But the present situation is unsatisfactory inasmuch as in some provinces there is no legislative control whatever, whereas in others, where it does exist, it is of the most meagre description, and it is necessary to extend it in order to redeem the land revenue system from the charge of executive arbitrariness which is made against it.[2] In this connexion, the following words of the Joint Parliamentary Committee (1919) are worth quoting: 'The Committee are impressed by the objections raised by many witnesses to the manner in which certain classes of taxation can be laid upon the people of India by executive action, without in some cases any statutory limitation of the rates, and in other cases, any adequate prescription by statute of the methods of assessment.

[1] For an ingenious, though fallacious, argument against the exemption of uneconomic holdings, see Anderson, op. cit., pp. 14-16.

[2] See Government of India Dispatch on the Constitutional Reforms of 1919, Sir Sankaran Nair's Minute of Dissent.

They consider that the imposition of new burdens should be gradually brought more within the purview of the legislature. And in particular, they advise that the process of revising the land revenue assessment ought to be brought under closer regulation by statute. The Committee are of opinion that the time has come to embody in the law the main principles by which the land revenue is determined, the method of valuation, the pitch of assessment, the periods of revision, the graduation of enhancements and the other chief processes which touch the well-being of the revenue payer.' The Committee thought that this reform was a necessary preliminary before the subject was transferred to Ministers after securing adequate representation to the rural classes on the Legislative Councils.

40. **Progress of land revenue legislation.**—The above recommendation has provoked a good deal of discussion in Provincial Legislatures, which are considering measures for closer regulation by law of (i) the principles of settlement and the determination of the standard rate of assessment; (ii) the limitation on enhancement at revision settlements; and (iii) the period of settlement. In 1928-9, bills embodying the principles of land revenue assessment in a statute were passed by the Legislative Councils of the Punjab, the United Provinces and the Central Provinces.[1] Legislation has not been considered necessary in Bengal, and Bihar and Orissa, as large territories in these provinces are under Permanent Settlement. In Madras and Assam[2] attempts to secure legislation regulating the assessment of land revenue have not proved successful. In Burma consideration has been postponed owing to its special conditions. In Bombay, the Land Revenue Assessment Committee was appointed in June 1924, in accordance with a resolution passed by the Legislative Council. The non-official members of the Committee strongly recommended that a Standing Advisory Committee of the Legislative Council should be set up to examine all revision settlement proposals and that, if the recommendations of the Committee are not accepted by Government, the proposals should not be put into force without express sanction of the Legislative Council. Such a committee would be highly desirable in view of the natural bias of the executive towards stressing the financial point

[1] See *India in 1928-9*, p. 321.

[2] In Assam a bill was passed in September 1930 fixing the maximum pitch of assessment at 10 per cent of the value of the gross produce as against the 12½ per cent proposed by Government. The latter figure had been agreed upon as the result of a compromise with the representatives of all the parties in the Council. The bill was returned by the Governor for reconsideration by the Council which refused to accept the higher limit. The Governor therefore withheld his assent to the bill. See *India in 1930-31*, p. 577.

of view, to the prejudice of the revenue payer.[1] The official objection to this proposal is, firstly, that the work of settlement is too technical to be properly understood by an amateur body of advisers, and secondly, that the members of the Advisory Committee are likely to resist even moderate proposals for enhancements in order to catch rural votes and to please their constituents. The first objection is not so strong as it appears at first sight, because the settlement technique is not so abstruse as to be beyond the ken of non-official members, especially of those of them who are experienced in agrarian problems; and, in any case, their lack of knowledge could be helped by the inclusion in the committee of one or two official experts. As regards the second objection, it is unfair to suppose that non-official members could not be relied upon to take an independent view from a wider standpoint than that of placating the rural voter, and anyhow, the bias of the non-official to oppose enhancement will serve as a much needed counterpoise to the opposite bias of the executive. It is too late in the day to resist legislative control on the ground that a revenue settlement is entirely a matter for the executive. The legislatures are in no mood to accept such a taboo, and have already busied themselves considering the details of legislative control, and failing an authorized body like the Advisory Committee, there is likely to be much embittered and possibly irresponsible discussion in the Councils on the settlement policy of the Government. A settlement report is undoubtedly not suited to discussion by the whole body of the Legislative Council. The only way of avoiding this, however, is to accept an advisory body in whom the Legislative Council and the constituencies would have sufficient confidence. The Bombay Government have recently modified their attitude of uncompromising resistance to any form of non-official control and given an assurance in connexion with the new Land Revenue Bill that is contemplated, that an opportunity will be given, not only to the landholders concerned but also to public bodies and associations, to discuss the Settlement Officer's proposals. In addition to this, however, it would be desirable to constitute a Standing Advisory Committee on the lines proposed by the non-official members of the Bombay Land Revenue Assessment Committee.

[1] See Government Resolution of 1927 on the *Report of the Bombay Land Revenue Assessment Committee* and the Report by the official members of the Committee.

CHAPTER XIII

INDUSTRIES: A GENERAL SURVEY

1. **Industrial history of India during recent times.**—In this chapter we propose to take a general survey of the industrial position of India. Subsequent chapters will deal with more specific problems such as protectionism, large-scale industries and cottage industries, etc. We have already traced the industrial history of India up to about the end of the nineteenth century.[1] And we have seen how she was, roughly till the beginning of the nineteenth century, both a manufacturing and an agricultural country, how her industries had attained a high state of perfection judged by contemporary standards, but how they began to languish from the end of the eighteenth century as a result of several unfavourable influences. Since the eighties of the last century, and more particularly from the beginning of the present century, the backwardness of India in industrial matters had begun to attract the notice of patriots and economists like Dadabhai Naoroji and Ranade, and it was held responsible for the recurrent famines from which the country suffered, and the grinding poverty of the masses of which the famines were a symptom. The Famine Commission of 1880 had hit the right nail on the head in pointing out that one of the main reasons for the recurrence of famine in India was the absence of diversity of industries, and insisted upon this being remedied. A similar diagnosis of the situation was presented by the Famine Commission of 1901 and an identical remedy proposed. The opinion began to gain ground that nature had not destined India to remain for ever dependent on other countries for manufactured goods. Even the few industries that happened to have struck root in the country without the assistance of Government owed much to foreign capital and enterprise. This was a position which could hardly be regarded as satisfactory from the national point of view. The feverish activity of the Japanese Government, which had brought their country into the forefront of industrial nations within a marvellously short period, stood in painful contrast with the apathetic attitude of Government in this country. The cotton excise duties imposed towards the close of the last century under pressure from Lancashire lent colour to the suspicion that Government were

[1] *Ante*, chapter v.

worse than merely indifferent to industrial development in India. In these circumstances, it is not surprising that the economic discontent due to the poverty of the masses and the lack of industrial outlets to educated middle-class youths began to assume a political complexion. The institution of the Indian Industrial Conference in 1905 in association with the Indian National Congress was the first definite sign of the alliance between economic and political discontent—an alliance which was immeasurably strengthened in the agitation for securing the annulment of the partition of Bengal. 'The swadeshi movement was the positive and the boycott the negative expression of the same purpose.'[1] A great wave of industrial enthusiasm overran the whole country. Numerous factories for the manufacture of textiles, hosiery, pencils, cutlery, matches, glass, etc., were started, but most of them came to grief for lack of practical training and even more owing to want of business experience, and, lastly, because the State did not so much as raise its little finger to prevent their collapse. The policy of differential railway rates was allowed to continue, to the prejudice of Indian manufactures. Competition from abroad was permitted to run its course unhindered by protective tariffs or other means. This attitude was not entirely due to the *laissez-faire* doctrines which had more or less consistently been the official creed. It was also caused by the association of boycott with the swadeshi movement which alienated the sympathies, not only of Government, but also of many private individuals. The failure, to whatever causes it may have been due, undoubtedly emphasized the lesson that, in this country, there was no chance for industries without the strong and vigorous backing of Government, at least in the initial stages of their development. Thus in the pre-War period Indian industries were very poorly developed. Practically the only large organized industries on a stable footing were the cotton mill industry of western India, the jute industry of Bengal and the coal mining industry of Bihar and Orissa, and Bengal. It is necessary, however, to take note of one highly important step in industrial advance under Indian enterprise, namely, the inauguration of the Tata Iron and Steel Company at Sakchi (Jamshedpur), which was founded in 1907 and commenced operations in 1912. Other miscellaneous industries such as cotton gins and presses, jute presses, paper mills, rice mills, sugar factories, petroleum refineries, leather works, engineering workshops, etc., had also come into existence, but they were not of sufficient magnitude or importance to deserve more than a passing reference here.

[1] See *Montagu-Chelmsford Report*, par. 335.

2. **Survey of the policy of the State in relation to industrial development.**[1]—We may, at this point, pause to take a brief review of the various changes which State policy has undergone in relation to industries in India. It has already been noted how the East India Company's commercial instincts made it at first favour the improvement of those industries on which its export trade depended. But this policy had to be abandoned owing to the pressure of vested interests in England, and India came to be looked upon primarily as a valuable source of the raw materials necessary for developing the manufactures of England. This attitude, which was a legacy of the old colonial policy, survived for some time after the Company had ceased to be a trading body, and even after its extinction and replacement by the direct rule of the Crown in 1858. What was at first dictated by self-interest, came later to be fortified by the prevalence of the *laissez-faire* theory about this time both in England and in India. The interest of the State in industrial development did show itself occasionally but in a very fitful and haphazard manner, and it was ridiculously inadequate to the needs of the situation. For a long time it did not go beyond a very imperfect provision of technical and industrial education and the collection and dissemination of commercial and industrial information. A few industrial exhibitions were held and a certain number of provincial monographs on Indian industries were published, and so far as there was any activity on the part of the State, it was rather due to the energy of a few exceptionally far-sighted individual officers than to any considered and comprehensive policy laid down by Government. A change, however, was gradually coming over the policy of the Government and the first sign of it was the creation in 1905 of a separate Imperial Department of Commerce and Industries at the instance of Lord Curzon. In the meanwhile, individual Provincial Governments, like those of the United Provinces and Madras, had begun to put forward programmes of industrial policy requiring close co-operation, help and guidance from Government. For example, the Madras Government, encouraged by their successful experiment in the aluminium industry, had committed themselves to an increasingly active participation in industrial development, which had resulted in considerable impetus being given to hand-loom weaving, the introduction of the chrome process of manufacturing leather, etc. A special officer was appointed to supervise and stimulate technical and industrial education. But all these creditable efforts, which had already provoked the interested opposition of the

[1] For a fuller treatment of the subject, especially relating to the period covered by the War and post-War years, see A. G. Clow, *The State and Industry*, chaps. i-iii.

European commercial community in India, received a sudden check by the 1910 Dispatch of Lord Morley, the then Secretary of State, who, true to his *laissez-faire* creed, deprecated direct attempts on the part of Government to start new industries, even for the sake of experiment and demonstration and with the object of eventually transferring them to private enterprise. 'The policy, which he was prepared to sanction, was that State funds might be expended upon familiarizing the people with such improvements in the methods of production as modern science and the practice of European countries could suggest. Further than this the State should not go, and it must be left to private enterprise to demonstrate that these improvements could be adopted with commercial advantage.'[1] This dictum of Lord Morley damped the enthusiasm of the Madras Government who, however, later on proceeded to better their instruction and retraced their steps farther backwards than was necessary.[2] Lord Crewe, the successor of Lord Morley, pointed out that the Madras Government had placed too limited a construction upon the dispatch of 1910 by restricting their efforts to the provision of industrial schools. The new Secretary of State declared himself prepared to follow a somewhat bolder policy, but it was now the turn of the Government of India to be oppressed by doubts as to how far they would be justified in sanctioning proposals for demonstration plants, financial assistance and other forms of direct State aid to industries. They were further hampered by the absence of the necessary organization and equipment which, they said, prevented them from giving effect even to the ultra-cautious policy sanctioned by Lord Morley. The obvious retort to this would, of course, be that the necessary organization and equipment should have been created. However, whatever the reasons for it, it is a fact that Government failed to turn to account the enthusiasm for the regeneration of national industries caused by the swadeshi movement, which on its constructive side was a healthy movement, but which fizzled out owing to many factors, of which lack of Government support was not the least important.

3. **Industrial development during the War.**—Matters drifted in this way till the period of the Great War, which proved an

[1] See *Industrial Commission Report,* par. 108.

[2] Pandit Madan Mohan Malaviya does not wholly subscribe to the view expressed by the Majority Report of the Industrial Commission with regard to the 'deadening effect produced by Lord Morley's dictum of 1910', and points out that, although Lord Morley deprecated State-managed commercial enterprises, he was in favour of funds being applied to the establishment of well-equipped technical and industrial schools. But Government in this country failed to do anything substantial even in this direction (see *Industrial Commission Report,* pp. 313-4, Minute of Dissent).

eye-opener in many ways and brought about a more vivid realization of the danger of dependence on foreign supplies even for the necessaries of life. The cutting-off of the enemy countries from the import trade, and the almost complete withdrawal from it of the allied countries on account of their pre-occupation with the War, seemed to offer exceptional opportunities for the development of Indian industries. But neither the public nor the Government were ready to take any considerable advantage of this favourable situation, created by the virtually complete, though temporary, elimination of foreign competitors, and they had the mortification of seeing these opportunities grasped by Japan and the United States whose participation in the import trade of this country increased enormously during the War. These countries were in a position to obtain a firmer footing in the Indian market because they had already reached a high stage of industrialization. India, on the other hand, was labouring under various handicaps such as the great difficulty of obtaining essential machinery and materials, which she herself had not learnt to produce; the scarcity or total absence of technical and chemical experts; the shortage of skilled labour and of railway waggons, coasting vessels, coal and coking plant, etc.[1]

Further, the military importance of developing the economic resources of the country was brought to light by the War. It was realized that, while the services rendered by India in the eastern theatres of the War were valuable, they would have been vastly greater if the country had been industrially developed. 'Nowadays, the products of an industrially developed community coincide so nearly in kind, though not in quantity, with the catalogue of munitions of War that the development of India's natural resources becomes a matter of almost military necessity.'[2] All these considerations resulted in the appointment of the Industrial Commission in May 1916 to examine the whole question of industrial development in India, and to indicate new openings for the profitable employment of Indian capital in commerce and industry and the manner in which Government could usefully give direct encouragement to industrial enterprise. The *Report* of this Commission (1918) particularly stressed the importance of the active assistance of Government in furthering the industrial development of the country with the aim of making India more self-sufficient. To this end, they considered it necessary that the Government should be provided with an adequate administrative equipment and should command reliable expert advice on scientific and technical matters. One of their main recommendations, therefore, was in favour of the

[1] See *Indian Munitions Board Industrial Handbook*, p. 16.
[2] See *Montagu-Chelmsford Report*, par. 337.

creation of special industrial and chemical services and the establishment of provincial Boards of Industries.

4. **The Indian Munitions Board.**—In the meanwhile, the Indian Munitions Board had been established by the Government of India in February 1917, 'to control and develop Indian resources, with special reference to the needs created by the War, to limit and co-ordinate demands for articles not manufactured and produced in India and to apply the manufacturing resources of India to War purposes with the special object of reducing demands on shipping.' Although, under the terms of reference, the Board was required to concentrate its energy on its primary object of assisting the prosecution of the War, especially in the eastern theatres, it was able, within the limits set, to foster the development of indigenous industries in various ways, such as (i) direct purchase of articles and materials in India; (ii) the diversion, by means of the priority system and control over Home indents, of all orders from the United Kingdom and elsewhere to manufacturers in India; (iii) assistance to individuals and firms who desired to import plant or engage experts or skilled labour from abroad; and (iv) the dissemination of information and expert advice to persons prepared to establish new industries in India.[1] In this manner, considerable stimulus was given to various industries, notably cotton, jute, iron and steel, and leather manufactures, as also a number of others, such as engineering industries, manufacture of chemicals, mineral acids, oils, paper, glass, cement, cutlery, fertilizers, paints and varnishes, surgical instruments, etc.[2] The adoption of the system of Home indents and the priority certificate by the Munitions Board was tantamount to the acceptance of the principles of swadeshi, for the time being, by Government, and these new departures from the traditional policy of *laissez-faire* showed how much could be done in India in the sphere of industrial development with the active co-operation and assistance of Government. Departments of Industries were started by the end of the War in all the provinces as recommended by the Industrial Commission, and the Munitions Board was merged in the Imperial Department of Industry and Commerce. The Chemical Services Committee was also appointed as suggested by the Industrial Commission. The plan of an all-India chemical service was, however, subsequently dropped and freedom of action in this matter was allowed to the Provincial Governments, who became responsible for industrial development under the Government of India Act of 1919. Indeed, it may be observed here that the scheme adumbrated by the

[1] Op. cit., p. 9.

[2] See S. G. Panandikar, *The Economic Consequences of the War for India*, pp. 103-9.

Industrial Commission, which assumed the initiative of the Central Government, could not fit in properly with the Montagu-Chelmsford Reforms of which the key-note was provincial autonomy.[1] The work of the Department of Industries will be reviewed in a later chapter.

5. **The post-War industrial boom.**—The cessation of the War was followed everywhere by a short period of boom and feverish industrial activity, caused by the expectation of a strong revival in demand for manufactures which had remained unfulfilled during the War, and of the continuation of the high level of War profits and inflation of currency. In India there was a period of great prosperity for the manufacturing and exporting industries, such as cotton, jute, cement, steel and iron, manganese, oil-seeds, hides and skins, etc. During the War company flotation was slow, owing to the difficulties regarding the importation of new plant, machinery, stores and technical experts. But after its close there set in a regular mania for company flotation, especially in the years 1919-20 and 1920-21. High dividends were declared and the prices of industrial securities rose to unprecedented heights. The figures relating to the registration of joint-stock companies in India during this period are striking. In 1914-15 there were 2,545 companies registered in British India and Indian States with a paid-up capital of Rs. 80·7 crores. The number of companies rose to 2,789 and the amount of paid-up capital to Rs. 106·6 crores in 1918-19, to 3,668 companies and Rs. 123·2 crores paid-up capital in 1919-20, to 4,708 companies and Rs. 164·4 crores paid-up capital in 1920-21, and to 5,189 companies and Rs. 230·5 crores paid-up capital in 1921-2. The authorized capital of new companies registered in 1919-20 was about Rs. 275 crores and of those registered in 1920-21 about 146 crores. The dividends paid by the Bombay cotton mills were 23·7 per cent of the paid-up capital in 1918, 40·1 per cent in 1919, 35·2 per cent in 1920, and 30·1 per cent in 1921.[2] There was a mania of speculation in the share bazaar. As the Native Share and Stock Brokers' Association said in their representation to the Bombay Stock Exchange Enquiry Committee in November 1923: 'The prices of newly floated companies were fictitious. The shares of the Tata Bank were at Rs. 90 premium with only Rs. 15 paid-up and no reserve fund at all. The Tata Oil Mills share which is of the face value of Rs. 100 was quoted at Rs. 575 premium even before the erection of the machinery for the working of the mill. Owing to this popular hysteria and frenzy to make big fortunes in a week or fortnight numerous new

[1] See Clow, op. cit., chap. iii.

[2] See *Textile Tariff Board Report*, Table VIII.

companies, for every conceivable object, rose like mushrooms.'[1] The currency policy of the Government, which caused violent fluctuations in the exchange value of the rupee, aggravated both the boom and the subsequent depression. The sharp rise in the sterling value of the rupee, especially in 1919 and the first half of 1920, served as a great stimulus to imports, though for the time being the export trade was not seriously affected owing to the keen demand for Indian exports abroad.[2]

6. **Trade depression of recent years.**—The boom was, however, short-lived, though its duration varied in different industries. The tide definitely turned about the middle of 1920 and a prolonged period of depression set in. India, like many other countries, showed all the familiar symptoms of a trade cycle. The expectations of a firm demand and high prices were not fulfilled owing to the exhaustion brought about by the War, the deflation of currency which was now started in England, and various other countries. Moreover, in India the big slump in the exchange value of the rupee in 1920-21 embarrassed the importers, who had counted on the exchange remaining high, while the exporters now felt the full force of the previous high level of exchange. The extension of old industries and the establishment of new ones planned during the boom period at inflated prices, now began to weigh on the market and aggravated the depression. There were heavy liquidations of companies and firms and the outlook for those who survived the crash was far from bright. The subsequent rise in the exchange value of the rupee from 1924 further prolonged the period of trade depression, intensifying as it did the force of foreign competition in the Indian markets at a time when the depreciated currencies abroad had already placed that competition at an advantage. The Tariff Board thus felt constrained to allow for this handicap in making their recommendations for protection to the iron and steel and the textile industries, which, with the swing of the pendulum, had now to face heavy losses or had to content themselves with such paltry dividends as 4·9 per cent of the paid-up capital in 1923 and 2·2 per cent in 1925 and 1926. In these circumstances the stock exchanges became extremely unsteady and showed a marked bearish tendency. The New York crisis (1929) and the world slump in prices further intensified the trade depression in India.[3]

[1] See *Bombay Stock Exchange Enquiry Committee Report,* p. 51.

[2] See Gadgil, op. cit., pp. 255-6.

[3] For a discussion of the causes of the present world economic depression and its effect on India see the chapter on the Trade of India in volume II.

Introduction of protective tariffs.—A large part of the stimulus received by Indian industries during the War was, however, necessarily temporary in character and ceased to operate with the cessation of the War purchases of Government and the re-appearance of normal trading relations with other countries, after the Armistice in November 1918. Indian manufactures were again subjected to the full force of foreign competition helped by the absence of any protective tariff barriers, apart from enhanced import duties imposed for revenue purposes under the financial stress caused by the War. In these conditions, the longstanding demand for a revision of tariff policy again became more vocal and insistent than ever. The subject of tariff policy had been excluded, much against popular wishes, from the terms of reference of the Industrial Commission, on the ground that it was not desirable at that juncture to raise any question of the modification of India's fiscal policy. The support lent by the distinguished authors of the Montagu-Chelmsford *Report* to the view that, since the theoretical free trader hardly existed in India, considerations of justice and fairness required that Indians should have full liberty of deciding their own tariff policy and that Government had no right to force their free trade convictions on them, strengthened the hands of the protectionist party in India. Of similar tenor and significance was the recommendation of the Joint Select Committee on the Government of India Bill 1919, that a convention in favour of fiscal autonomy should be established. This was subsequently accepted by the British Parliament. The question of regulating inter-Imperial fiscal relations on the basis of a system of preference in favour of goods of Empire origin, which the War had brought into prominence, threw into relief once more the general question of tariff relations of India with other countries. The Committee of the Imperial Legislative Council appointed by the Government of India in February 1920, to report on the feasibility of Imperial Preference and the future fiscal policy of India declared its inability to make any definite recommendations on the latter question and suggested a special commission of inquiry for the purpose. This eventually led to the appointment of the Fiscal Commission in October 1921 under the presidency of Sir Ibrahim Rahimtoola. The policy of discriminate protection, to be administered through an expert body called the Tariff Board recommended by the Commission, was accepted by the Government of India early in 1923. In accordance with that policy, a Tariff Board has been instituted and has already examined and, in some cases admitted, the claims for protection of several industries such as iron and steel, cement, paper, cotton, salt, sugar, the heavy chemical Industry etc. (See vol. II, chapter iii).

areas, welfare work, trade union organization and so on. As regards the paucity of competent managers, as H. Calvert observes, 'the best training for the future manager is to be acquired in the mill and amongst the men he is to manage. The art is picked up in the atmosphere of industry.' [1] Since the atmosphere does not exist at present on any appreciable scale, the country will have to follow the example of Japan and import foreign managers when necessary, and, more important than this, send out young men to foreign lands to receive the requisite experience and training. A time will surely come when the required atmosphere will be created in the country and recourse to either of these methods will be superfluous. Indian capital has long enjoyed the reputation of being too shy, but it may be confidently expected to be less and less timorous if reasonable assurances are forthcoming that it can be invested with security and profit. The striking success of the loan operations of Government in the Indian money-market during and after the War and the successful flotation of a considerable number of joint-stock companies in the post-War period, together with the fact that recently considerable investment of Indian capital in sterling securities has been brought to light, are additional proofs that the shyness of Indian capital is a fast vanishing quantity. The improving banking organization of the country, the assurance of a large home market and the post-War enthusiasm for the industrial renaissance of India should further help in drawing out the savings of the people for purposes of productive investment in modern industries. The differential rates policy followed by the Indian railway companies—an evil, the existence of which was admitted by both the Industrial and the Fiscal Commissions—has long been a grievance of the Indian industrial and commercial community, but the gradual transfer of the principal railway systems to State management and the creation of the Rates Tribunal are calculated to remove this grievance and make railway administration more sympathetic and helpful to the progress of industrialization. The problem of improving inland road communication, which is extraordinarily defective at present, especially in rural areas, is being tackled; Road Boards have been created in some provinces, and the Indian Road Development Committee (1928) has made some useful recommendations, the adoption of which by the Government of India in March 1929 may be expected to lead to vigorous road construction in the near future.[2] The constitutional reforms have inevitably brought about a change in the attitude of the State,

[1] *Wealth and Welfare of the Punjab*, p. 168.

[2] See vol. II, chapter on Transport.

which, as we have noticed above, will make it more and more zealously helpful in the promotion of industrial advance.

10. **Benefits of industrial development.**[1]—The benefits which will accrue to India from industrial development are so obvious as scarcely to need formal statement. We have had many occasions of commenting on the great poverty of the Indian masses and the many weaknesses in our economic system to which it is due.

(i) One of these weaknesses is the excessive concentration of the productive energies of the people on one single occupation, namely, agriculture. An adequate development of industries will remedy this situation. It will make for a more even distribution of the population among a variety of occupations and bring about a more stable national economy. It will thus make the problem of famine much less serious than it is at present, by drawing off a certain proportion of the surplus numbers at present engaged in agriculture.[2]

(ii) Secondly, the establishment of industries will lead to an increase in the national dividend and will enable the masses to raise their standard of living, which in its turn will increase their efficiency and hence their productive capacity. A beneficent circle of action and reaction will thus be set up.

(iii) Thirdly, industrial development will improve the taxable capacity of the people through the increase in the national dividend and will enable the State to finance schemes of national regeneration which are at present held up for want of funds. It is also clear that a diversification of industry will make the system of taxation much more elastic than at present, for taxes on agriculture like land revenue are incapable of ready expansion, but taxes on other sources, of which the income-tax is the most outstanding instance, are to a large extent automatic and bring additional money into the State coffers without much difficulty.

(iv) Another important advantage of industrialization is its favourable reaction on national character and the scope it gives to

[1] See *Fiscal Commission Report*, chap. iv.

[2] The Fiscal Commission point out that industrial development will not directly mitigate the effects of famine or widespread failure of rain, because famine in this sense brings in its train depression in industries and causes a general decrease of purchasing power. The labour that is disengaged from agriculture because of failure of rains will not be absorbed by industries, which will themselves be suffering from a serious curtailment of demand. This, however, does not invalidate the contention that industrial development will make the direct effect of drought less serious because the proportion of population normally engaged in agriculture would be smaller than it is now.

diversity of aptitude and talent. It supplies an antidote to the intellectual inertia and conservatism which characterize a predominantly agricultural country, unless agriculture also is organized on industrial lines as in the United States and Denmark. Generally speaking, an industrial population is intellectually more alert, and towns have therefore always been the centres and radiators of civilization and culture. As Maitland says: 'There be thoughts which come to men when they are tightly packed.' [1] Industrial training will act as an effective offset to the absence of a sufficiently practical grasp of affairs which characterizes the products of the too literary system of education which prevails at present, and will generally enable the people to shoulder better the new responsibilities which the next step in political advance must place on them.

(v) Industrialization will further go a long way towards supplying a solution for the serious problem of middle-class unemployment which to-day exists on a distressingly large scale in India. The young men will be relieved from the necessity of depending exclusively on Government service or a few overstocked professions such as law, medicine, etc.

(vi) We have already referred to the military importance of greater economic self-sufficiency to India as well as to the Empire. An industrial India with its resources properly exploited will be a tower of strength to the Empire, not only from an economic but also from a political point of view, quite apart from any system of Imperial Preference, which it may not suit India to enter into.

(vii) Further, the unprofitable habit of hoarding which, although it is generally exaggerated, must all the same be admitted to exist, is likely to give way with the greater opportunities for investment and the prospect of making handsome profits, which industrial expansion will open out. The joint-stock organization of modern industry serves to utilize small amounts of individual savings which would otherwise lie dormant. There is the further consideration that wealth which is accumulated in industrial enterprises is more readily available for further employment as capital than similar amounts acquired, say, by way of agricultural profits.

(viii) Lastly, an extension of industry, by increasing the output of national wealth will increase the resources of the people in general, and more particularly, of that section of the people engaged in industrial production, as wages and profits in industry are generally higher than in the case of agriculture.

11. **Reactions of industry on agriculture.**—The reactions on agriculture of industrial expansion would be almost wholly beneficial.

[1] Quoted by Carr-Saunders, op. cit., p. 425.

One reason for the languishing condition of Indian agriculture is, as we have seen, a deficiency of capital. This shortage of capital is likely to be remedied by the accumulations in industry being made available for investment in agriculture. We may recall in this connexion that the great advance of English agriculture during the period of the Industrial Revolution was financed by the profits made by the commercial and industrial magnates. The strong sentiment in favour of investment in land is sure to attract a considerable portion of the earnings of successful business in much the same way as this happened in England, owing to the great political and social status attaching to the possession of land.

The effect on agricultural wages will be to raise them, especially in areas adjoining centres of industrial activity. One of the consequences of industrial advance would be a multiplication of towns and cities, and we have already noted that the propinquity of urban areas has a great revivifying effect on rural populations, making them more progressive. Again, agriculture in its capacity of provider of raw materials needed for industry, is sure to receive an impetus to enhanced production to meet the ever-increasing demand of the expanding industries.

It is sometimes argued that the development of industries, by drawing off a portion of the population from the land, will lead to a diminished food supply. In this connexion, it is important to consider whether a transfer of population from agriculture to industries is likely to take place in the near future on such a scale as to produce an appreciable effect on the total numbers at present engaged in agriculture. Having regard to the fact that at the present moment the industrial workers are not very much more than one per cent of the agricultural workers, it does not seem likely that even with a very rapid development of industries this proportion will be seriously affected in favour of industry and against agriculture. Secondly, the belief has been widely held since the time of the Famine Commission of 1880, that there are more people on the land than are really required for its thorough cultivation and their withdrawal should, therefore, have no effect on the actual volume of the food supply. Lastly, we are looking forward to an era of improved agriculture which will enable a smaller population, not only to maintain production on the present scale but to increase it considerably owing to the adoption of up-to-date methods. We must further remember that a curtailment of food supply will in some measure bring its own remedy; a smaller supply will mean higher prices which in their turn will stimulate production. The fear, therefore, that is sometimes expressed that agriculture would

come to occupy a subordinate place as a result of industrialization is without any foundation. In any case, we must not make a fetish either of agriculture or of industry. Whether agriculture occupies the first or second place is after all immaterial so long as the nation divides its labour and capital between the two in such a manner as to maximize the national dividend; as a matter of fact agriculture is so much suited to the conditions of this country that it will never be a sound business proposition to neglect it altogether in favour of industry, and there is no reason to doubt that it will always retain its importance in India. This will be even more so if we allow weight, as we very well might, to the non-economic arguments in favour of agriculture, namely, that it helps to maintain a sturdy and prosperous yeomanry, which is the strongest bulwark of the State, making for political stability and acting as a counterblast to the radical and revolutionary ideas likely to prevail in a country with a purely commercial and manufacturing population.[1]

The controversy of agriculture versus manufactures is thus pointless and unreal. We have seen that agriculture stands to benefit vastly by industrial development and it is equally true that the prosperity of industry is bound up with that of agriculture if only because the agriculturist in India will be the principal customer for the products of Indian industries.[2]

12. **Capital for industries.**—This may be discussed under two headings: (i) indigenous capital and (ii) external capital.

(i) *Indigenous capital.*—We have remarked above that the indigenous capital supply of the country is tending to improve both in point of adequacy and venturesomeness, especially since the period of the War. This is evidenced by the increase in Government rupee loans from Rs. 145 in 1913-4 to Rs. 427 crores in 1931-32, and, in the paid-up capital of joint-stock companies registered in India, from Rs. 80 to Rs. 287 crores between 1913-14

[1] 'What all countries now require are not more town-dwellers but more land-bred folk. They require them for defence. They require them for purposes of national health; they require them for steadfastness in the midst of the shifting developments of a neurotic age. Without an adequate supply of land-dwellers to replenish and support their city population, people must deteriorate and in due course fall' (Rider Haggard, quoted by B. G. Sapre in his *Economics of Agricultural Progress*, p. 49). The ideas expressed here have a particular application to countries like England which have gone too far in the direction of urbanization for national safety. In India, safety at present depends on more and not less urbanization.

[2] 'It is not a question of agriculture versus industry, but of the two great occupations expanding side by side, with agriculture always necessarily taking the lead.' (Calvert, *Wealth and Welfare of the Punjab*, p. 186).

and 1929-30.[1] Although the position thus revealed is gratifying, there is still very great scope and need for further improvement as regards the increase and employment of the indigenous capital resources of the country, without which industrial development in India will be greatly retarded. This question has assumed great importance in view of the fact that industrial activity is no longer restricted to a few channels, such as those provided by the cotton and jute mill industries, but is in quest of other numerous fields, as exemplified by the establishment of the Tata Iron and Steel Works and the contemplation of a large number of ambitious schemes: for instance, in connexion with the greater utilization of the water-power possibilities of the Western Ghats; the additions to the existing steel works; the creation of a group of subsidiary concerns to convert the output of the steel works into manufactured products; the production of machinery and mill accessories, etc.[2] All these schemes require vast amounts of capital and it is necessary to take proper steps to tap all the dormant capital in existence at present. In order to understand how this might be done, we must undertake a preliminary examination of the nature and extent of the capital available (*a*) in the mofussil and (*b*) in the bigger commercial towns, and the manner in which it is employed.[3]

(*a*) In the mofussil there is hardly any organization of capital, owing to the practical absence of suitable banking facilities. The extension of commercial joint-stock banking presents special difficulties, although the position in this respect has been eased to some extent by the establishment of a number of branches of the Imperial Bank at the principal district towns. The Post Office Savings Banks and latterly also co-operative banks have been able to tap a portion of the rural savings, but on the whole, the village moneylender remains practically the only supplier of capital for the local needs of the agriculturist, artisan and petty trader. It is very rarely that he employs his capital in new enterprises. Some local enterprises have, indeed, been started with local capital, especially flour mills, ginning presses in cotton tracts, and rice mills in the rice deltas in Burma and on the Coromandel coast. These have however, been multiplied to such an extent that the profits derived from them can scarcely be called attractive from the business point of view. A

[1] See the *Budget of the Government of India for 1932-3*, p. 158; *External Capital Committee Report*, par. 8; and *Statistical Abstract for British India* (1929-30), Table Nos. 261-2.

[2] See *Industrial Commission Report*, par. 280.

[3] For a recent comprehensive and interesting survey of the existing financial facilities for the various types of industries, rural and urban, cottage and organized, in the provinces, the *Reports* of the several Provincial and of the Central Banking Enquiry Committees may be consulted.

large part of the savings of the well-to-do agriculturist is locked up in jewellery and hoards, as shown by the fact that the net imports of gold and silver into India between 1913 and 1924 amounted to Rs. 482 crores of rupees.[1] Government officials and professional classes favour investment in land either by way of purchase or mortgage, though the banking habit is growing very much faster in the case of these classes than amongst agriculturists.

(*b*) In the Presidency and commercial towns, the situation is somewhat more satisfactory. There are better banking facilities and greater readiness on the part of the people to invest savings in industrial and commercial enterprises, and, generally speaking, a well-considered and sound business proposition promoted by men of standing and technical knowledge does not fail to attract the necessary capital. But even here, difficulties are not altogether absent. The existing banking system is too inelastic from the point of view of industrial finance. The Imperial Bank is virtually prohibited from financing industries under the existing law. The exchange banks carry on a lucrative business in foreign exchange to which all their capital is devoted, and, moreover, most of them are foreign in management and capital. This precludes them from coming to the assistance of Indian industrial enterprises for lack of the necessary contact with indigenous industries and knowledge of Indian conditions; nor can they be expected to be very sympathetic to the needs of industrial development in this country. The Indian joint-stock banks have generally shown a tendency to adhere to orthodox commercial banking resting on short-term finance, and the experiments made by some of them (for example by the People's Bank of Lahore which went into liquidation in 1913) in the opening years of the present century to combine ordinary commercial banking with industrial banking proved a failure owing to the locking up of short-term deposits in long-term business which it involved, and also to the mistake, which was too commonly made by the banks, of sinking an excessive proportion of their funds in a single industry.

We thus reach the conclusion that even in towns there is no adequate provision for the long-term finance required by industries. A few industrial banks have been started, but the most important of them and the one which at first appeared to hold out the brightest prospects, namely, the Tata Industrial Bank, after a somewhat ineffective and inglorious career soon abandoned the industrial side of its work and contented itself for a while with ordinary commercial banking and foreign exchange business, until it was

[1] *External Capital Committee Report*, loc. cit.

eventually (1923) merged in the Central Bank, which is purely a commercial bank.

The difficulties of financing industrial enterprises operate with special force in the case of small middle class entrepreneurs, who, unlike the big industrial magnates and joint-stock corporations, cannot furnish the security of stocks or approved names. Co-operative credit is not suited to their case, being useful only in the case of small artisans like the weavers. In these circumstances, there has been an insistent demand for some financial assistance on the part of the State directly or indirectly by some such means as guaranteed dividends, direct loans, purchase of finished products and so forth. The subject of industrial finance was reviewed at length by the Industrial Commission (1916-18) and more recently by the Central Banking Enquiry Committee (1930-31).

The chief method that commends itself to the Industrial Commission is the establishment of special industrial banks in India. They consider that the establishment of such banks, working on approved lines, is of sufficient national importance to justify Government assistance. They point out that what is required is a bank which can keep in touch with small industrialists, is able to estimate the prospects of a fairly extensive range of industries, and possesses funds which it can afford to lock up for a time in securities not readily realizable. They further recommend the appointment of a special expert committee to lay down a definite scheme in this connexion and to define the methods of State assistance to such banks. They contemplate that, whatever other assistance Government might give, they should supply expert advice to industrial banks through the Departments of Industries in order that the banks may be in a position to estimate the prospects of industrial projects seeking their assistance. The industrial banks would not themselves be able to enlist the services of experts, and Government would do well to supply the need.[1] Problems in connexion with the constitution of industrial banks, as also the recommendations made by the Central Banking Enquiry Committee in favour of the establishment of Provincial Industrial Corporations and an All-India Industrial Corporation will be discussed in the chapter on Banking in volume II.[2]

Pending the establishment of such banks, the Industrial Commission suggest that the existing joint-stock banks should finance middle-class industrialists by advance of loans to them, subject to a guarantee by Government, after an investigation by the Director of Industries and his expert staff into the financial standing of the

[1] See *Industrial Commission Report*, pars. 287-92.

[2] See also *Report of the Central Banking Enquiry Committee*, pars. 401-09.

applicants and the prospects of their business. The Commission further recommend that Government should always provide direct financial aid in a few cases, such as public utility enterprises or those of national importance. Such assistance might take the form of a guarantee of dividends, loans of money, an undertaking given by Government to purchase the output, or State contributions to the share capital. All these forms of aid must be subject to suitable precautions in order to safeguard the financial interest of Government and to prevent the concessions from being exploited by foreign capitalists. It is not yet in evidence that Government have so far set about earnestly carrying out the more important recommendations regarding industrial finance made by the Industrial Commission. The financial stringency of recent years is probably one of the reasons for the indefinite postponement of vital proposals, such as the establishment of industrial banks. It is true that an Industrial Loans Act has recently been passed in the Punjab, while Madras, Mysore, and Bihar and Orissa have their State Aid to Industries Acts.[1] But, for reasons to be noticed later on, these Acts have not been very helpful to industrial finance and in the aggregate only small amounts have been advanced under their provisions. The establishment of separate industrial banks, therefore, is still a desideratum. The comprehensive survey of Indian banking recently conducted by the Central and Provincial Banking Enquiry Committees has served to further emphasize the need for a satisfactory solution of the present difficulties of industrial finance. In the questionnaire issued by the Central Banking Enquiry Committee special prominence was given to the question of industrial banks and credit facilities for India's main industries and its recommendations, if given effect to, are calculated to place industrial finance on a much more stable and progressive basis (see chapter on Banking in volume II).

43. **External capital in India.**—The problem of external capital has come into special prominence since the recent adoption of the policy of protection. It is generally felt that the advantage of protection to the nation would be largely cancelled if foreign capital and enterprise were allowed, without let or hindrance, to take shelter behind the tariff walls. Even under the regime of free trade a considerable number of companies with foreign capital had

[1] The Bombay (par. 177), Bengal (par. 117) and Central Provinces (par. 1312) Banking Enquiry Committees strongly recommend that State Aid to Industries Acts should be passed without further delay in order that the policy of assisting industries may be pursued more systematically than at present. The Central Banking Enquiry Committee (par. 311) have fully endorsed this recommendation.

established themselves in the country as will be seen from the table below. Indeed, as we have already seen, modern industrialism in India owes its inception to foreign capital. The question of the right policy to be adopted with reference to foreign capital was examined both by the Fiscal Commission (1921-2), and by the External Capital Committee, which was appointed in 1924 in connexion with the debates on the Steel Protection Bill in the Assembly.

14. **Amount of foreign capital.**—It is difficult to form an accurate estimate of the amount of external capital invested in India, but there is enough statistical material for a rough estimate. In the first place, we may notice the returns of joint-stock companies working in British India but incorporated elsewhere.[1]

TABLE I

Class of company	1914		1929-30	
	Number	Paid-up capital	Number	Paid-up capital
		£		£
Banking and loan	13	24,551,108	28	90,992,913
Insurance	89	28,065,738	141	65,158,080
Navigation	12	15,001,865	17	40,108,425
Railways and tramways ...	18	80,811,915	21	32,959,066
Other transit and transport ...	...	.....	10	1,273,787
Trading and manufacturing companies	113	114,254,333	334	281,438,313
Tea	166	17,573,284	177	26,982,375
Other planting companies ...	22	1,165,844	28	3,238,145
Coal mining	6	139,134	4	240,000
Gold mining	3	389,830	...	.....
Other mining and quarrying companies	13	5,030,999	32	110,684,002
Cotton mills	3	400,000	5	203,000
Jute	9	2,428,894	5	2,752,400
Cotton ginning, pressing, baling, etc.	1	100,000	2	150,000
Estate, land and building ...	...	.....	6	366,740
Sugar (including jaggery) ...	2	306,656	1	280,000
Other companies	9	554,451	29	65,206,891
Total (British India)	479	290,773,871	840	722,034,137
Total (Indian States)	38	7,627,326	43	17,683,230
Grand Total	517	298,401,197	883	739,717,367

[1] See *Statistical Abstracts for British India* (1923-4 and 1929-30).

The corresponding figures for joint-stock companies registered in India (including Indian States) are as follows.

TABLE II

1914-5		1929-30	
Number	Paid-up capital	Number	Paid-up capital
	Rs.		Rs.
2,545	80,78,81,572	6,925	2,86,908,897

Several interesting facts are brought out by the above figures. In the first place, the great predominance of foreign capital and enterprise in India is clearly revealed. The aggregate foreign capital is very much larger than the indigenous capital, and the fact that in the former case the number of companies is smaller shows the more substantial capital basis and economic power of the individual foreign concern. As against this, we see evidence of a definite tendency for the volume of Indian capital employed, as well as the number of Indian concerns, to increase at a more rapid pace than foreign capital and foreign concerns since 1914.

Although the indications of the foregoing statistics are broadly reliable, they are subject to certain reservations which it is as well to mention here. (i) Firstly, only the paid-up capital of joint-stock companies of both classes has been taken into consideration. To this must be added the debenture capital, which, in the case of companies registered outside India but working here, has been estimated at over a hundred million pounds. On the other hand, it must be remembered that, in the case of many external companies, especially banking, insurance, trading and navigation companies, only a portion of their total paid-up capital, as shown in the above table, is engaged in their Indian branch of the business. (ii) Secondly, though the registered domicile of a company may be taken as a rough index of the origin of the capital, some of the capital of foreign companies may be held by Indians and vice versa. As the External Capital Committee point out, Indians hold a large and increasing share both in external companies and in companies with rupee capital under non-Indian management, for example, in the jute mills. Similarly, as implied above, companies with rupee capital registered in India may have a large number of foreign shareholders, and the control may be in non-Indian hands. Cases in point are the jute mills of Calcutta, the Buckingham and Carnatic Cotton Mills, Madras, and the Cawnpore Woollen Mills. (iii) Again,

the above table takes into account only the capital of joint-stock companies and not the capital of private firms, foreign or Indian. (iv) It is further necessary for purposes of forming a more accurate idea of the amount of foreign capital employed in India, to take into consideration sterling loans raised in England on Government account for Indian railways, irrigation works, etc. These amounted to £380·89 millions on 31 March 1932 and may be regarded, along with the London-enfaced rupee debt of the Government of India, as held almost entirely by foreign investors.

Apart from any question of an accurate computation of the amount of foreign capital in India, there is no doubt about the broad fact with which we are mainly concerned here, namely, that the total amount of foreign capital engaged in this country in some form or other is very considerable. Many of the large-scale business enterprises in India, such as banks, shipping companies, railways, insurance companies, tea and coffee plantations, mining companies, tanneries, etc., are carried on with the help of foreign capital, though in recent years Indian capital is striking out new paths for itself and also increasing as regards the aggregate amount. Apart from the cotton mill industry of western India, which is mostly financed by Indian capital, the Tata Iron and Steel Works, and the Tata Hydro-Electric Works in the Western Ghats, Indian capital is making headway in the jute mill industry, cement industry, banking, steam navigation, tea plantations, etc.[1] Government's own borrowings are also tending to rely in an increasing measure on the Indian money-market, as is seen from the fact, noted above, that the rupee loans raised by the Government of India advanced from Rs. 145·6 crores on 31 March 1914 to Rs. 427·0 on 31 March 1932 exclusive of the Treasury Bills and Postal Cash Certificates.

15. **Foreign capital in India: main issues.**—The present predominance of foreign capital in India and the prospect of its increasing under a system of protective tariffs and high import duties for revenue, raises the question of how far it is desirable any longer to follow the policy of the open door with reference to it. Foreign capital may enter the country either as loan capital or as investment capital. It is generally agreed as regards the former that, while every endeavour should be made to mobilize the internal capital resources of the country, so long as indigenous capital is not forthcoming sufficiently rapidly and in adequate quantity, there is

[1] The agreement which the hydro-electric group of companies controlled by the Tatas has recently (1929) entered into with a large American syndicate, by which the latter has obtained a half share in the agencies of the companies in consideration of Rs. 37 lakhs, has been the subject of much adverse comment.

not only no objection to borrowing capital from abroad but it is positively advantageous to do so.

Other countries like Japan and the United States of America, although intensely nationalistic in feeling and policy have encouraged the use of foreign capital in this form. Similarly, educated non-official Indian opinion has not opposed the use of foreign capital in this sense. R. C. Dutt, for instance, regarded the policy of raising capital abroad to finance State railways as sound and well-advised. The foreign investor is in this case merely entitled to the stipulated rate of interest and acquires rights of control only in the event of default. Instances of this class of foreign capital are furnished by the various State and municipal loans, bonds of port authorities, bonds and debentures of private companies and bank loans.[1] As Dr. Slater puts it, 'as no foreign control enters into the question, the main matters for consideration are . . . (i) can a new asset be created by means of an external loan which will yield a net annual return, directly or indirectly, to the people of India, exceeding the stipulated rate of interest; and (ii) can the money be borrowed abroad on the whole to greater advantage than in India? If both of these questions are answered in the affirmative, obviously the use of external capital is advantageous.' The External Capital Committee, however, introduce a reservation to the effect that, in the case of Government and quasi-Government loans, the rate of interest should not be the sole consideration between an external and an internal loan. They suggest that, apart from considerations of exchange, resort should be had to rupee loans as far as possible rather than to external loans, even although the rate of interest in the former may be somewhat more unfavourable, the idea being to foster habits of saving and investment, and furnish first-class security in the form of Government scrip, and well-secured bonds as cover for bank accommodation to industrial enterprises in India.[2]

Foreign capital, however, normally seeks entry into the country on a speculative and profit-sharing basis and involves foreign control and management. It is against this class of capital that objections are generally urged.

16. Objections to foreign capital.—The principal points against foreign capital have been stated as follows.[3] (i) The first obvious objection is that the profits go out of the country. To some this objection appears so overwhelming that, rather than allow the

[1] See *External Capital Committee Report*, par. 17.

[2] Ibid.

[3] See *Fiscal Commission Report*, par. 290, and Minute of Dissent, pars. 54-8; also *External Capital Committee Report*, par. 17.

natural resources of the country to be developed and exploited principally for the benefit of foreigners, they would like to see a complete ban on external capital even though this might result in an indefinite postponement of the industrial development of the country. This feeling is particularly strong with regard to 'key industries' or industries important from the point of view of national defence, and those natural resources of the country, such as minerals, which once exhausted cannot be replaced. (ii) The second objection is that foreign firms prefer to choose as directors persons of their own nationality, a partiality which is extended to the selection of members of their superior staff, so that Indians have no reasonable chance of rising to positions of responsibility and power. They are also unwilling to train up Indians as apprentices, so that one of the main advantages claimed for foreign capital is usually missed (see next page). (iii) Lastly, there is the political objection against foreign capital, namely, that it gives rise to vested interests which are usually antagonistic to the political and economic aspirations of the country. Foreign capital may, in the course of time, be compelled, in sheer self-defence and for purely economic reasons, to identify itself more and more with the Indian standpoint. But this is a symptom which it has not developed as yet to any appreciable extent.

17. **Uses and advantages of foreign capital.**—There are, however, several grounds on which, in spite of the disadvantages noted above, it may on the whole be necessary and desirable to welcome foreign capital subject to certain reservations. (i) One of the advantages of foreign capital is that, with its help, the process of industrialization and consequently of the enrichment of the country is expedited. The country gains from the beginning, because the industries, although dependent on external capital, cause an increase in the national wealth at least in the form of the wages paid to the labour that is employed. There is no invariable rule governing the proportion which profits bear to wages, but in many cases wages constitute a considerable item in the gross earnings of an industrial enterprise. However that may be, if the alternative lies between no industrial development and industrial development with the help of foreign capital, it is clear that the latter is to be preferred from the purely economic point of view. No doubt, the country would benefit most if profits as well as wages remained in the country, and it is of the utmost importance that indigenous enterprise should come forward as quickly as possible to undertake the task of the industrial development of the country, and everything should be done to encourage it to do so. But in the meanwhile, so long as the people of the country are not ready to take up the work, it may be advantag-

eous to allow foreign capitalists to do so. The wages, whether they bear a small or a large proportion to the gross earnings, undoubtedly constitute a net gain to the country.[1] But the more important gain, apart from that which comes by way of an immediate increase of national wealth to the extent of the wages earned, is that the foreign capitalist imports into the country the technical knowledge and the organization which are needed to give an impetus to industrial development. But this advantage can only be reaped fully if facilities are provided by the foreign firms to train the people of the country in matters of industrial organization and technique. In this connexion we feel bound to observe that, in spite of the fact that European capital has for a long time been active in the field of industry in India, its presence has not resulted in any appreciable advantage of the character described above. This shows that merely allowing unrestricted entry to foreign capital is not automatically followed by the advantages claimed for it. It seems necessary to impose such conditions on foreign companies as are calculated to hasten the industrial education of the country. No useful purpose is served by denying that Indians are, at present, lacking in the qualities of industrial leadership and in industrial knowledge. But they are capable of learning the lessons which the west can teach them in these respects, provided they get proper opportunities and facilities for so doing. And if they fail to get the necessary initiation into up-to-date methods and new ideas at the hands of foreign industrialists, the main object of allowing foreign capital to establish industries in the country will be defeated. While all this indicates the necessity of taking special steps in order to derive the fullest benefit from foreign enterprise, it does not deny its utility. As a matter of fact, in certain circumstances, foreign capital affords the only solution of the problem of economic development. This is why many countries, far from having a prejudice against it, find it profitable to go out of their way to take special measures for attracting it. This is also the reason why protection is sometimes supported on the ground that it induces foreign capital to seek investment in the country erecting tariff walls.

Another advantage claimed for foreign capital is that it bears the initial cost of development and smooths the path of indigenous enterprise. This leads us to remark that, in considering the huge profits made by foreign capitalists in India (estimated at sixteen million pounds per annum)[2] we must allow for the initial losses

[1] See Morison, *Economic Transition in India*, p. 220.
[2] See *External Capital Committee Report*, par. 7.

sustained by them. At the same time it should be borne in mind that it is a sign of weakness if a country always depends upon foreigners for taking the risks attendant upon industrial enterprise.

18. **Proposed restrictions on external capital.**—On a consideration of the advantages and disadvantages of foreign capital, we come to the conclusion that, although we must not receive it too freely and with an excess of compliment, it has an important role still to perform in the industrial development of the country, provided its operations are brought under suitable regulation and it is subjected to certain restrictions. The restrictions have to be devised so as to reconcile two conflicting sets of considerations. On the one hand, foreign capital must be attracted in just the required quantities and of just the required kind. If the restrictions are too rigorous, external capital is likely to be scared away, to the detriment of the country. On the other hand, the total absence of restrictions or excessive leniency in imposing them carries with it the danger of foreign capital occupying the whole field of remunerative industry without any corresponding advantage to the country. Before discussing the *manner of imposing restrictions* on foreign capital so as to harmonize these opposing considerations, we shall first refer to the *kind of restrictions proposed*, which are as follows.

(i) Foreign companies should be incorporated and registered in India with a rupee capital so as to offer facilities for investment to Indians and to identify the management with Indian national interests. The objection that this restriction is likely to be evaded by the formation of private instead of joint-stock companies is met by pointing out that the large capital necessary for modern industrial enterprises cannot ordinarily be raised by private firms and that, in any case, if such an evasion is seen to occur on a large scale, special legislation might be passed to prevent it.

(ii) Secondly, a proportion of the shares of such companies should be reserved for Indian investors in order to ensure sufficient Indian control on the management. A less extreme variant of this is that this proportion should be reserved for Indian subscribers in all new flotations for a definite period of time. It has been objected against this provision that it would be utterly useless, unless restrictions were placed on the free transferability of shares subscribed to initially by Indians, but if the free transferability were impeded, the Indian shareholder would be penalized as the result of a restricted market for his shares and the consequent loss in their value. On the other hand, the reservation of a certain proportion of the shares for Indians would so far limit the amount of capital in the industry,

and by lessening competition would increase the yield to it, but this in its turn means that the capitalist would gain at the expense of the consumer. Lastly, it is objected that it would be practically impossible to prevent the evasion of all such restrictions.[1]

(iii) Thirdly, it is proposed that a certain percentage of the directors should be Indians, preferably chosen by the Indian shareholders. The objection that this restriction savours of a narrow racial communalism, which is, moreover, fatal to businesslike and efficient management, has been met by the counter-argument that the very idea of imposing certain disabilities on foreign capital because it is foreign, is a kind of communalism which, on other grounds, is nevertheless regarded as necessary. Even England has not been free from the taint of communalism, meaning thereby a certain amount of discrimination against the foreigner. In illustration of this, Pandit Malaviya points to the provision of the English Overseas (Credit and Insurance) Act 1920, restricting the grant of credit only to such firms as possess a predominantly English character. Similarly, in India, even under the free trade regime, Government had already accepted the necessity of such restriction whenever concessions were granted to private companies.

(iv) Further, it is proposed that all companies, Indian and non-Indian, should provide facilities for the training of Indian apprentices and that penal taxation should be imposed for non-compliance. We have already seen that the purely economic motive of the cheapness of Indian skilled labour cannot, under present conditions, be relied upon to ensure the entertainment of a sufficient number of Indian apprentices by foreign companies without the compelling force of law.

19. **Manner of imposing restrictions.**—It is more or less generally agreed that some such restrictions on foreign capital are necessary for minimizing its disadvantages and maximizing the advantages. Such restrictions have actually been legalized in the Indian Steel Industry Protection Act of 1924. There is, however, a difference of opinion as to the cases to which they should be applied. The Majority Reports of the Fiscal Commission and the External Capital Committee, for example, would prefer to impose these restrictions only when a definite concession or pecuniary assistance, such as a bounty, has been granted by the Government to companies, their general objection to the wholesale imposition of these conditions in all circumstances being that they would be too onerous and would, therefore, be evaded, or, if not capable of being evaded, would frighten away foreign capital almost altogether. The

[1] *External Capital Committee Report*, pars. 21-3.

Minority Report of the Fiscal Commission, on the other hand, argues that protection in itself constitutes an important concession and that logically no distinction can be made between favouring an enterprise by definite concessions like bounties and favouring it by admission to the benefit of a general system of protection, and it opines that the restrictions proposed above should be applied in all cases, whether particular concessions are granted or not.

The general conclusion that emerges from the above discussion is that, in the first place, external capital is in some measure necessary in the present circumstances in India for the purpose of hastening industrialization and shortening the period of the consumer's sacrifice, which will continue so long as protective tariffs are maintained, and to enrich the country by providing it with the modern equipment of industry. In the second place, however, the inflow of external capital must be controlled so as best to fulfil the objects specified above. How exactly and in what circumstances this control should be exercised is a matter more of detail than of principle. The difference of opinion between the Majority and Minority Reports of the Fiscal Commission, to which we have referred, arises from the fact that the Majority have a very limited faith in the efficacy and wisdom of the proposed restrictions, whereas the Minority entertain a positive bias in favour of them. But there is a fundamental agreement between them as regards the national end to be achieved by the regulation of foreign capital.

How far the methods of regulation suggested will be effective in attaining the aims kept in view, can only be decided by a process of trial and error. It appears to us that the injurious effects of a possibly too stringent regulation are exaggerated by the Majority Report. If a particular type of control is found in practice to be injurious, it is always possible to withdraw it or supply a corrective to suit the circumstances of each case. The argument that the various restrictions discussed above carry certain disadvantages with them and are liable to be circumvented by all kinds of subterfuges is of the nature of a platitude, and does not take us very far. We do not think that irreparable injury will result from beginning with comparatively stringent regulations on the lines recommended by the Minority Report; if they are found unsuitable, they can be changed and moderated as may be demanded by circumstances. We do not believe that capital, that may be scared away as a result of restrictions which prove by experiment to be too severe, cannot be coaxed back again by relaxing them if and as necessary. A certain initial bias, however, in favour of restrictions on foreign capital would be in consonance with non-official Indian opinion and would be interpreted as a friendly gesture on the part

of Government and a sign that they were prepared whole-heartedly to pursue a policy of encouragement and support to Indian industries.

One of the points urged in favour of exercising great circumspection in the matter of controlling the inflow of external capital is that foreign capital, being required for post-War reconstruction in Europe, is no longer so easily available as before the War. As against this, however, it may be argued that the present difficulty of obtaining external capital is balanced by the recent tendency on the part of Indian capital to show an increasing readiness to respond to the efforts made to attract it into remunerative investment, a tendency which, it is believed, will be further strengthened by the growing pace of industrialization under the stimulus of a policy of protection. The amount of capital in India that is at present lying infructuous is so great that, if proper means are found to attract it, India will be in a position to forgo the use of foreign capital altogether. There is even justification, according to Sir Basil Blackett, for the optimistic view that India will before long be in a position, not only to dispense with foreign capital, but to lend to other countries a considerable surplus that will be left after fully satisfying her internal needs.

20. **Need for developing internal capital resources.**—It is obvious that the greatest advantage will be realized when the country is in a position to satisfy her requirements for new capital almost entirely from internal rather than from external sources, and, as the External Capital Committee remark: 'The real solution of the problem of external capital lies in the development of India's own capital resources.' In order to draw out the 'vast store of dormant capital' in existence in India, 'banking facilities must be increased and extended.'[1] To this end, the Committee suggest a co-ordinated survey of the whole field of banking in India to be followed by a detailed examination by an expert Committee on the lines along which progress should be made. The important subject of the development and reorganization of Indian banking, as also the recommendations of the Central Banking Enquiry Committee and the Provincial Banking Enquiry Committees, will be pursued in a separate chapter on Banking (see volume II).

The replacement of foreign by indigenous capital implies that industries should not only be financed by Indians but also owned and managed by Indians. This latter point, however, has already been dealt with earlier in the chapter.

[1] See *External Capital Committee Report*, Summary of Recommendations.

STATISTICAL APPENDIX

BASED ON THE

CENSUS OF INDIA, 1931

These tables are compiled from the *Census of India, 1931* (*Abstract of Tables*), and *The Census of India, 1931*, a Paper read by Mr. J. H. Hutton, C.I.E., D.Sc., before the Indian Section, Royal Society of Arts, on 3 June 1931 (*Mysore Economic Journal*, August 1932).

TABLE B—The Chief Cities and their Population[1]

Town	Population	Town	Population
[2] Calcutta	1,485,582	Srinagar	173,573
Bombay	1,161,383	Patna	159,690
Madras	647,230	Mandalay	147,932
Hyderabad	466,894	Sholapur	144,654
Delhi	447,442	Jaipur	144,179
Lahore	429,747	Bareilly	144,031
Rangoon	400,415	Trichinopoly	142,843
Ahmedabad	313,789	Dacca	138,518
Bangalore	306,470	Meerut	136,709
Lucknow	274,659	Indore	127,327
Amritsar	264,840	Jubbulpore	124,382
Karachi	263,565	Peshawar	121,866
Poòna	250,187	Ajmer	119,524
Cawnpore	243,755	Multan	119,457
Agra	229,764	Rawalpindi	119,284
Nagpur	215,165	Baroda	112,862
Benares	205,315	Moradabad	110,562
Allahabad	183,914	Salem	102,179
Madura	182,018		

TABLE C—The Variation per cent since 1921 of the Urban Population in the Nine Largest Cities[3]

Calcutta (*including Howrah and suburbs*)	+11·9	Delhi	+44·3
Bombay	−1·2	Lahore	+52·5
Madras	+22·8	Rangoon	+17·1
Hyderabad	+15·5	Ahmedabad	+14·5
		Bangalore	+29·0

TABLE D—Urban and Rural Population[4]

	India	British Provinces	Indian States
Population	352,837,778	271,526,933	81,310,845
(*a*) Urban	38,979,211	29,652,253	9,326,958
(*b*) Rural	313,858,567	241,874,680	71,983,887
Number of towns ...	2,575	1,698	877

The Urban population in 1931 was 11·0 per cent of the total, an addition of 0·9 per cent in this population since 1921.

[1] *Census of India, 1931* (*Abstract of Tables*), p. 9.
[2] With suburbs and Howrah.
[3] Op. cit., p. 4.
[4] Op. cit., pp. 4 and 7.

TABLE E—Occupations or Means of Livelihood[1]

Occupation	Number of Workers, i.e., Earners + Working Dependents		
	Persons	Males	Females
India	154,390,612	105,562,494	48,828,118
Pasture and Agriculture ...	102,454,147	73,763,185	28,690,962
Fishing and Hunting ...	1,308,292	1,145,817	162,475
Mines, quarries, salt, etc. ...	346,000	259,583	86,417
Industry	15,361,933	10,807,507	4,554,426
Transport	2,341,406	2,099,198	242,208
Trade	7,913,797	5,785,816	2,127,981
Army and Navy	318,036	316,300	1,736
Air Force	1,863	1,838	25
Police	521,675	516,415	5,260
Public Administration ...	955,284	962,741	32,543
Professions and Liberal Arts .	2,310,141	1,986,260	323,881
Domestic Service	10,858,254	2,094,487	8,763,767
All others	9,659,784	5,823,347	3,836,437

The proportion of the working population engaged in agriculture is 66·4 per cent. Those engaged in trade number 5·13 per cent, in industries 9·95 per cent, and in transport 1·52 per cent.

TABLE F—Civil Condition and Age[2]

	Males			Females		
	0-15	15-50	50 and over	0-15	15-50	50 and over
Unmarried ...	66,136,368	19,623,334	578,299	55,209,690	4,324,200	164,153
Married ...	5,530,625	66,300,824	12,377,018	12,271,594	66,719,515	4,616,114
Widowed ...	136,436	5,146,872	4,375,808	321,701	14,317,488	11,609,279
Total ...	71,803,429	91,071,030	17,331,125	67,802,985	85,361,203	16,389,546

In the population classified by Civil Condition and Age almost half the males and a little above one-third of the females are unmarried, 46·7 per cent of the males and 49·3 per cent of the females are married, while 5·4 and 15·4 per cent respectively are widowed. The relative proportions of the population under 15 years, aged 15 to 50, and 50 and over respectively are 39·9, 50·5 and 9·6 per cent.

[1] Op. cit., pp. 5 and 12.

[2] Op. cit., pp. 4 and 10. (Excludes all estimated population and persons who failed to make a return or who were not enumerated by Civil Condition and Age.)

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