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THE TRADE OF THE INDIAN OCEAN

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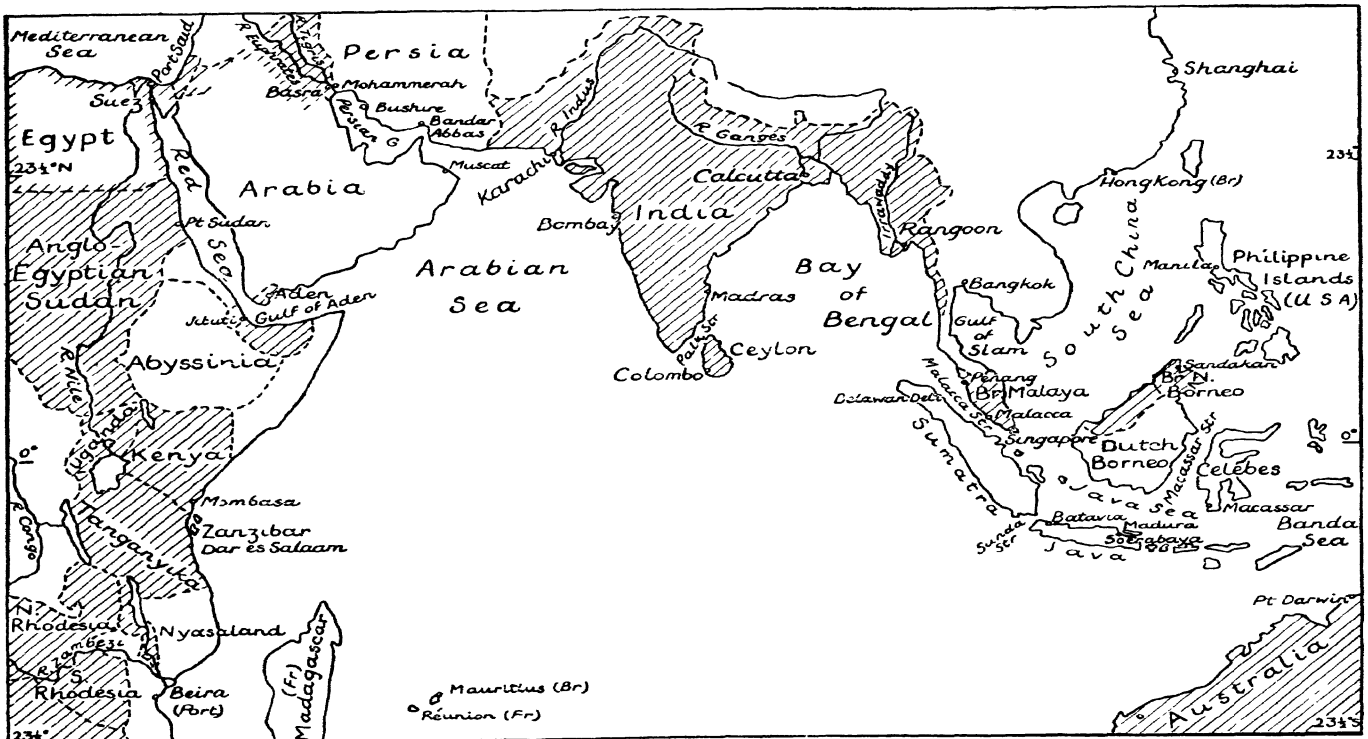

FIG. 1.—The Indian Ocean.

THE TRADE OF THE INDIAN OCEAN

BY

V. ANSTEY, B.Sc.(ECON.)

ASSISTANT LECTURER, LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

WITH MAPS AND DIAGRAMS

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EDITORIAL NOTE

SOME surprise may be occasioned by the inclusion of a volume on the trade of the Indian Ocean in the University Geographical Series. The inclusion serves to demonstrate two things—first, the place which modern geography should occupy in the intelligent study of industry and commerce, and, secondly, that the mass of official statistics of production and trade finds its rational interpretation on a geographical basis, a science which has been called geo-economics. It is significant that those who use the present volume in preparation for the London degree of B.Com. will probably be those who, in their previous years, have been nourished on the Intermediate Commercial Geography.

L. D. S.

AUTHOR'S ACKNOWLEDGMENTS

My thanks are due in the first place to Professor A. J. Sargent, M.A., who originally suggested to me that there was need for a small book on the Trade of the Indian Ocean, has most kindly read the following pages in manuscript, and has written an Introduction. Secondly, my thanks are due to Dr. L. Dudley Stamp, on whose recommendation this volume has been included in the "University Geographical Series," and who has helped me greatly with criticism and advice. Thirdly, I must thank Miss Winefride Hunt, B.Sc. (Cartographer to the Geography Department, London School of Economics and Political Science), for help in compiling and drawing the diagrams and maps, which I feel contribute much to the elucidation of the text. Finally, I must thank Edgar Anstey for checking the greater part of the arithmetical calculations.

V. ANSTEY

September, 1928.

INTRODUCTION

By A. J. SARGENT, M.A., Professor of Commerce
in the University of London

A BOOK should possess a certain unity of substance or plan. Confronted with a title such as the Trade of the Indian Ocean, we are entitled to ask on what grounds are the many contrasted parts of this area included between the covers of a single volume? It contains within its circuit the most varied types of people in different stages of economic development. This is true even of peninsular India, and still more true of the eastern and western margins of the Ocean. Though the influence of India proper, working through past and present trade and migration, may be regarded as dominant, this in itself is not a sufficient basis for unity. Where, then, is the justification for treating as a whole regions lying thousands of miles apart? It is to be found, perhaps, in the presence of a common factor, and that factor economic rather than political. Down to the present time, the whole area in its modern development has depended on European capital and ultimate economic control. It is true that such capital has been invested in many other regions, and the plantation system is not peculiar to the Indian area; but the elaborate organisation of production and trade, financed from Europe but controlled effectively by Europeans on the spot—the whole system of managing agents and its methods—is sufficient to mark off, economically, the Indian Ocean from the rest of the world. On the physical side, the basis of unity is, and always has been, the sea, and this remains true in spite of the modern development of railways.

There is, then, good ground for the treatment of the region as a connected whole; but how is it to be studied for utilitarian purposes; what kind of information is needed and where is it to be found? Accurate knowledge is impossible without statistics, and official figures are available in vast quantity.

In them we find a mass of details, but the background is that of particular political units—merely the raw material of a picture of the trade of the Ocean as a whole. Not all are artists enough to assemble and interpret the pieces of the puzzle, and here we must rely on our author. We look for and find a background of geography and history, interpreted in the light of personal knowledge, carefully adapted to the purpose of the book, which is mainly utilitarian.

Trade, industry, and agriculture are all parts of an economic whole Changes in industry and agriculture, or changes in economic policy, affect the form and direction of exchange. These wider problems are touched on in various chapters, and the book is a guide to further inquiry, for which it contains the necessary indications. We are thus left with the means to approach the ultimate problems of comparative trade and the future of competition, the solution of which is necessarily the aim of all utilitarian investigation, official or otherwise. The author in the following pages has given a summarised view of the trade of a large and important natural area, and a basis of inquiry of a kind that is usually denied to us in official publications dealing with individual tracts.

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CHAPTER I

THE ECONOMIC CHARACTERISTICS OF THE TRADING AREAS OF THE OCEAN

1. Introduction.

The object of the following pages is to give a brief account of the present-day commerce and commercial problems of the Indian Ocean. The attempt will be made to account for, as well as to describe, the nature and extent of the existing trade, and to distinguish the outstanding commercial tendencies and potentialities of the principal areas concerned. In order to achieve this end it is necessary not only to interpret present-day trade statistics, but also to consider the economic resources and organisation, the political and administrative conditions influencing trade, and even (to some extent) the history of each of the more important trading areas of the Ocean.

At first sight the attempt to analyse in brief compass the commerce and commercial problems of the whole of the Indian Ocean appears over-ambitious. Not only is the Indian Ocean one of the greatest trading areas of the whole world, but its social, political, and economic conditions are exceptionally complicated and diverse. In order to limit to some extent the scope of these pages, the trade of South Africa and of Australia (although the latter countries border on the Indian

Ocean) will be excluded from any but purely incidental consideration.[1] Even then the regions to be described include the contrasts and diversities of the vast and varied expanse of the Indian Empire (including Burma), with its ancient civilisation and commerce [2]; the "nouveaux riches" Provinces of the Malay Peninsula; Persia; Iraq—the reviving survivor of the long-lost civilisations of Mesopotamia; and the potentially important, but as yet only slightly developed, colonies of British East Africa.

To deal in detail with each of these would be an impossible task, but, when the trade of each separate area is considered in relation to that of the Ocean as a whole, it appears that the trade of India, British Malaya, and the Dutch East Indies, accounts for 86 per cent. (by value) of the total trade originating or terminating in the Ocean.[3] Moreover, this trade is not distributed evenly amongst a large number of commercial centres, but is, to a great extent, concentrated upon a relatively small number of large ports, which are situated upon one or two outstanding trade routes. Attention, therefore, can be directed primarily towards the great routes and first-class ports, although ultimately an explanation of their trade involves understanding their hinterlands.

The political divisions and chief ports of the main areas of the Indian Ocean are shown in Fig. 1 (Frontispiece), and their general statistics in Table I (p. 235). In the latter the order adopted is that in which the various regions would be visited by a traveller making a periplus of the Ocean, starting from Aden; *i.e.* Aden, Iraq, Persia, India, Ceylon, British Malaya (and British territories in North Borneo), the Dutch East Indies, British East Africa, and Mauritius.

India stands out as of paramount importance as regards

[1] So, also, will the commercially unimportant areas of Arabia and of British and Italian Somaliland. Portuguese East Africa and Madagascar will also be excluded, on the ground that they really form part of the economic region that centres upon South Africa, and the Anglo-Egyptian Sudan, because its trade and general economic development are more closely connected with that of Egypt than of the Indian Ocean.

[2] Evidence has recently been discovered at Harappa (Punjab) and Mohenjo-Daro (Sind) that an advanced stage of civilisation and extensive trade existed in India some two to three thousand years B.C. (cf. the *Illustrated London News*, Sept. 27, 1924, Oct. 4, 1924, and Jan. 7, 1928; and the *Times*, Sept. 24, 1926, Feb. 26, 1926, and Jan. 4 and 5, 1928).

[3] This excludes coasting trade, and the trade that traverses the Indian Ocean without either originating or terminating there.

both area, population, and total trade. Next in commercial importance (though not as regards area and population) come British Malaya and the Dutch East Indies. We shall, therefore, rapidly review the fundamental factors influencing economic development in general, and commercial development in particular, first in each of these three predominant, and then in the less important, regions of the Ocean.

2. The Economic Characteristics of India and Ceylon.

India, by which we denote the Indian (until recently called the " Native ") States, as well as the Provinces of British India, consists of a vast sub-continent of no less than 1·8 million square miles (1,163,604,000 acres), of which 1·09 million square miles are in British India (*i.e.* are under direct British Rule). The whole of this land mass (and Ceylon) lies north of the Equator, rather more than half lies north of the tropic of Cancer, whilst the most northerly part is in the same latitude as Greece, South Italy, Lisbon, Washington, San Francisco, and Yokohama. The Indian Empire includes within its borders the greatest variety of physical conformation and of climate, from the ever snowy Himalayan mountain hilltops, the alluvial river plains of the Ganges and the Indus, and the desert of Sind, to the arid Deccan plateau and the everlasting hothouse of the extreme south and of the coastal strips of the Peninsula. India's total population amounted (at the 1921 census) to no less than 318·9 millions (of whom 247 millions are in British India [1]), and contains greater diversities of race, language, religion, and social organisation than are to be found in any comparable country, or even continent. Hence the first great economic characteristic of India is its immense range of products, and of conditions and problems of production. Economically, although not administratively (and therefore not statistically), Ceylon may be considered as an extension of South India.[2] Apart from British East Africa

[1] This compares with a population of 105 millions in 1920 in the United States, the latter having more than double the area of British India.

[2] For the general statistics relating to Ceylon, see Table I. In using Indian statistics care should always be taken to note whether the figures refer to the whole of India or only to British India. In many cases the statistics for Indian (" Native ") States are less complete and accurate than for British India. This distinction can be ignored for foreign trade statistics, as all the ports engaged in extensive overseas trade lie within British India.

(which has a total area of over 1 million square miles, but is so backward economically, and so lacking in communications, that it is in no way comparable), India is the only large land (or "continental") area within our survey. British Malaya and British Borneo, and the Dutch East Indies consist of a narrow peninsula and of islands lying entirely within the tropics, on (or quite near) the Equator, and therefore have considerable climatic and productive uniformity.

Up till the middle of the nineteenth century the great size of the Indian Peninsula, and the consequent difficulties of communication and transport, prevented the development of either a large internal or a large foreign trade in the necessities of life. Trade was limited in the main to articles of high value in relation to bulk, such as the precious metals (which have for many centuries been largely imported by India) and manufactured goods of high quality. In the middle of the nineteenth century the construction of railways in India began, and by the end of the century main lines had been completed throughout the length and breadth of the land. The railway net, together with the introduction of steel steamships (especially after the opening of the Suez Canal in 1869) revolutionised Indian trade. The whole inland area was "opened-up" from the economic point of view, commercial crops were grown specifically for export, Indian prices for staple products were influenced by, and approximated to, world prices, and foreign (as well as internal) trade increased in size and value by leaps and bounds.

By 1925–26 there were 38,579 miles of railways open to traffic,[1] mainly Government owned, and to a great extent also under direct Governmental management. The great bulk even of the lines not under direct Governmental management are under a considerable degree of Governmental control, as regards both finance and administration. Since the beginning of this century the railways have normally brought in a considerable net revenue to the Government, which of recent years has amounted to over Rs. 5 crores[2] per annum. The Railway Board has recently been placed on an independent footing, with a separate "Railway Budget," the policy being to enable a "long-view" to be taken of railway construction

[1] Cf. Fig. 3, p. 5.
[2] Cf. Table II., p. 236. A lakh is 1,00,000, and a crore 1,00,00,000.

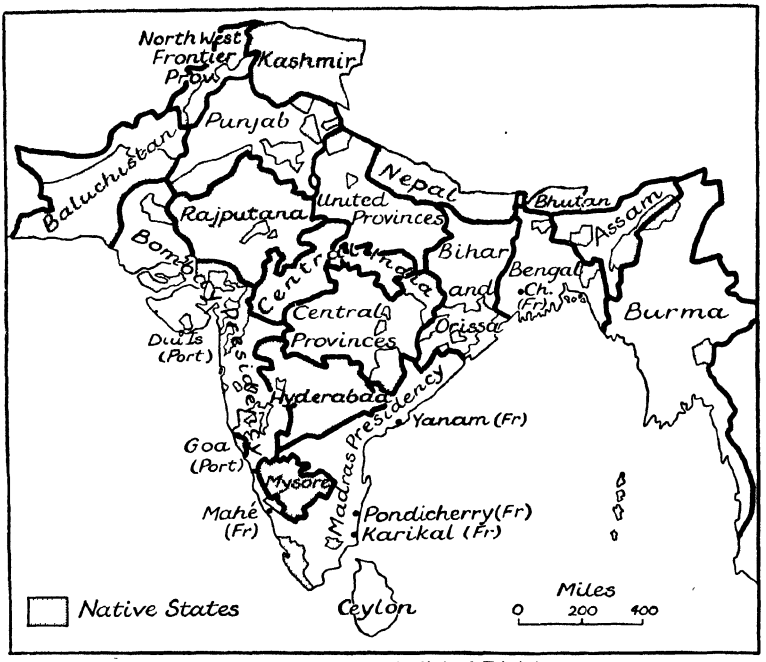


FIG. 2.—India: Political Divisions.

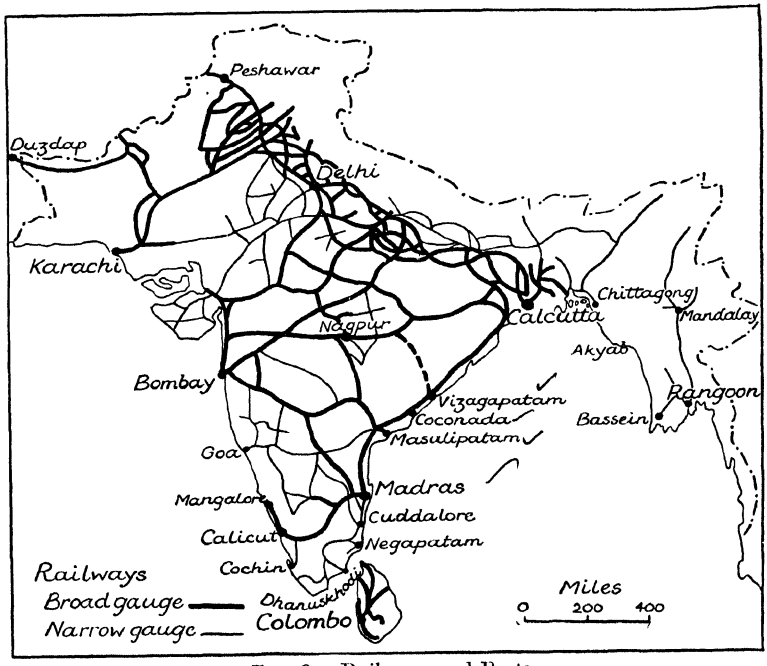


FIG. 3.—Railways and Ports.

and administration, and—after assuring the Government of a steady income from the railways—to use any surplus profits for the increase of facilities and cheapening of transport. The chief deficiencies of the system are the lack of branch and feeder lines in certain areas, and the existence of a "mixed gauge" system, which prevents or hinders through-traffic in certain cases.[1] Controversy still rages as to whether or no the whole system should be nationalised and so brought under completely unified control. The present policy is for the Government gradually to take over direct management of the lines which it owns, but which have in the past been managed by private companies.

The second great factor influencing economic conditions in India is the peculiar nature of the rainfall. Agricultural production throughout almost the whole country[2] depends upon the South-West Monsoon, which prevails from the end of May (in Ceylon) or early June, until September or October. India, therefore, has clearly marked wet and dry seasons, and many areas have an extremely variable and uncertain rainfall, and hence suffer from more or less periodic crop failures.[3] Burma has marked seasons, but over much of the country, excepting only the Central Dry Belt, the rainfall is good, and the country rarely suffers from widespread droughts.[4] Around the terrible famine problem has centred the greater part of the economic activities of the Government in the past. This problem is lacking in most of the other regions of the Indian Ocean, except in parts of British East Africa.[5] In Malaya and

[1] Cf. Fig. 3, where a distinction is shown between broad- and narrow-gauge lines. In 1925–26 there were 18,932 miles of broad gauge, 15,873 of meter gauge, and 3,774 of still narrower gauge lines.

[2] South-East Madras and Ceylon receive more rain from the North-East Monsoon in October, November, and December, than from the South-West Monsoon, and a certain amount of rain falls during the winter months in Northern India (due to shallow depressions passing from west to east), and in Bengal.

[3] In order to obtain an idea of the distribution and uncertainty of the Indian rainfall it is necessary to study carefully the maps showing seasonal rainfall (cf. for instance, the last volume of the *Imperial Gazetteer*). The areas of "uncertain rainfall" are (approximately) those with an average yearly rainfall of 10 to 40 inches. The Famine Report of 1880 gives a series of maps showing the areas subject to drought.

[4] Burma is included politically and statistically in British India, but geographically and economically forms a distinct unit. It is not yet connected by rail with the rest of India.

[5] Cf. s. 5 below.

the East Indies the rainfall is not markedly uncertain,[1] as the north-east as well as the south-west winds are wet, and a high rainfall and tropical heat prevail throughout the greater part of the year. In Iraq, the total rainfall is in most districts so slight,[2] as also in Sind and in other parts of Northern India, that agriculture is always dependent upon irrigation. The greater part of Persia has an average rainfall of only 13 to 14 inches per annum, whilst some of the central and south-eastern districts have an average of only 6 inches per annum, but the fluctuations in the rainfall are not nearly so great as in India.[3]

Agriculture is the main occupation of the bulk of the people in all the lands of the Indian Ocean, and everywhere, with the important exception of India, the great mass of the exports consists of one or two staple articles, which are usually either plantation or forest products, or minerals. India, on the other hand, is remarkable on account of the heterogeneity of her resources, products, and exports. The latter include not only foodstuffs (mainly rice, wheat, and oilseeds), plantation products, raw materials (principally cotton and jute), and minerals, but also factory products, in particular manufactured jute and cotton goods.[4] Hence India stands alone (in the Indian Ocean) as a great centre of diversified production and trade. Moreover, although her existing trade is far greater than that of any of the other areas, the potential expansion of her trade is no less great, as her total population is so vast and her trade per head still so low,[5] that even a very slight rise in the productive powers and standard of life of the masses would offer an immense field for the extension of the exports and imports of the country.[6]

Obviously political factors have greatly influenced Indian

[1] In British Malaya it rains at certain hours (which are closely predictable) on perhaps 200 days in the year.

[2] The average rainfall of Basra and Bagdad is 9·0 inches.

[3] The Caspian watershed and coastal districts and the Urmia basin have a higher rainfall.

[4] Cf. Figs. 4 and 5, pp. 8, 9.

[5] Cf. Table I.

[6] This expectation is not, to my mind, jeopardised by the probability that she will eventually become (owing to her nationalistic aspirations and recently adopted protective policy) an essentially "self-sufficing" Empire, comparable with the United States. Her present trade per head is so small that any tendency towards increased productivity and prosperity will certainly entail an increase in foreign trade, no matter how rigorously protection is enforced.

production and trade. The assumption of territorial sovereignty, first by the East India Company (from 1765 onwards) and then by the Crown (in 1858), led to the building of public works, in particular of irrigation canals and railways, which enabled particular areas to specialise in suitable crops and greatly stimulated foreign trade.[1] Here it is only possible

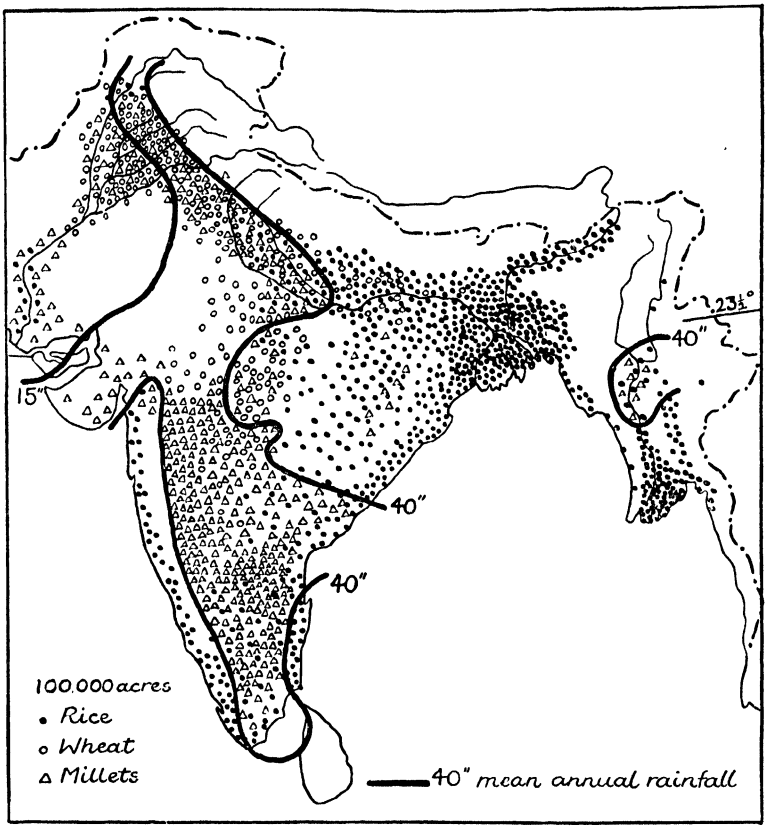


FIG. 4.—India: Food-grains.

to indicate briefly the main influences of political and administrative factors on Indian commerce at the present day. An extremely large proportion of India's foreign trade is still carried on with Great Britain [2] (owing partly to the political connection), and much of the remainder with the Continent of

[1] Cf. L. C. A. Knowles, *Development of the Overseas Empire*.
[2] Cf. Fig. 16, p. 73.

Europe and the United States, and in consequence it consists to a great extent of the exchange of Indian foodstuffs and raw materials for the machine-made manufactures of the West. This type of trade was, until recently, fostered by the enforcement in India of English free-trade principles. Under the

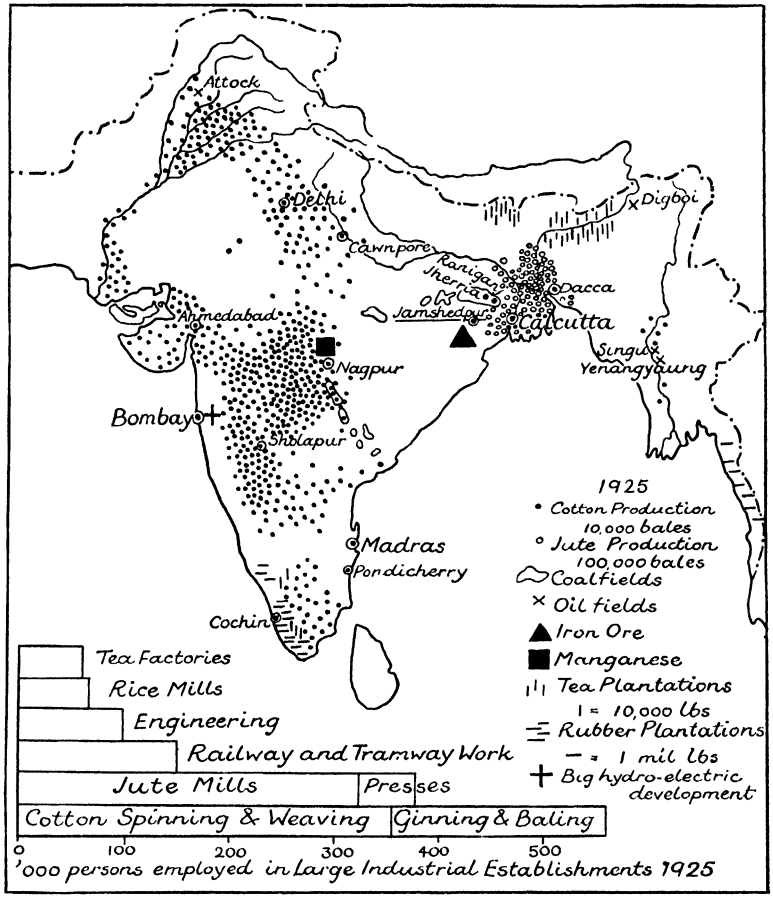


FIG. 5.—India: Raw Materials, Industries, and Plantation Products.

Reformed Constitution (introduced in 1921), giving British India a partial measure of self-government,[1] the principle of

[1] The system introduced in 1921 is known as "Dyarchy," because it divides all Governmental functions into two classes, one of which consists of the "transferred subjects" which have been handed over to Ministers responsible to the Provincial Legislatures. The latter have an elected majority.

"fiscal autonomy" has been admitted, although not yet fully translated into action. A policy of "discriminating protection," whereby the development of industries should be assisted by protective tariffs and other appropriate measures, has been adopted,[1] and it is to be expected that in the future every possible means will be tried of assisting India to evolve a better balanced economic system.[2] In the future, therefore, Indian fiscal policy will not be influenced directly by the ideals of Lancashire or of any other group of European merchants, but the Indian market will have to be gained or retained by merit, convenience, and persuasion.

Apart from the direct influence of the political connection with Great Britain, the indirect influence exercised by European traders and capitalists on the nature, direction, and organisation of Indian trade has been of paramount importance. The greater part of India's foreign trade is still conducted and financed[3] by European (mainly British) merchants.[4] It therefore stands to reason that the greatest developments have taken place in directions that appeal to European interests and ideals.

Ceylon remains a Crown Colony, with a Legislative Council containing an elected element, and the dyarchical form of Government has not been introduced.[5] Plantation industries

[1] Definitely "protective" duties have, so far, been practically confined to to the steel industry (since 1924), but the "general" tariff of 15 per cent., and various "special" tariffs at even higher rates, undoubtedly have some protective effects, although imposed for revenue purposes. (Cf. the Tariff Schedules in the *Statistical Abstract for British India* or in the Annual Review of the Trade of India. Cf. Chap. III, pp. 94, 95.)

[2] "Better balanced" in the sense that industrial will no longer lag so far behind agricultural production.

[3] By the Exchange Banks, which are branches of great corporations whose headquarters are established outside India (cf. C. W. E. Cotton, *Handbook of Commercial Information for India*).

[4] These European traders in the main confine their activities to the import and export trade, leaving internal trade to the numerous trading castes of India. Similarly, except in the jute and plantation industries, Europeans have taken little part in actual production within the country, and there has never been any extensive settlement by, or alienation of land to, Europeans in India. There are to-day, including women and children, only 200,000 Europeans in India. Of these less than 60,000 are in the Army, about 4,000 are in the Police, and 3,432 are employed in the various Civil Services, including the Indian Civil Service, the Medical, Educational, Agricultural, Veterinary and Forestry Services, engineers employed by the Public Works Department and railway administrators.

[5] The Report of the Special Commission appointed to inquire into the working of the Ceylon Constitution has just been issued (Cmd. 3131, July 1928), but no action has yet been taken (cf. *Times*, July 17, 1928).

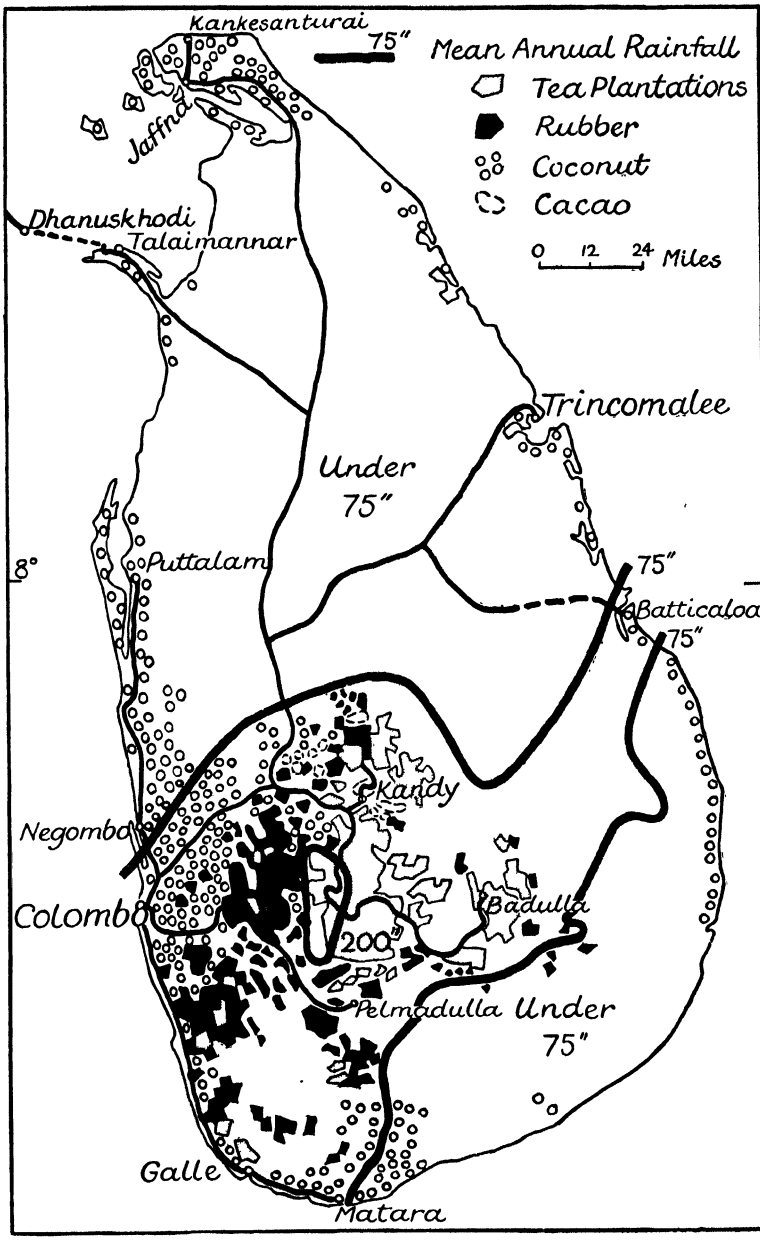


Fig. 6.—Ceylon: Products.

are of paramount importance from the point of view of foreign trade, the principal exports being tea, rubber, and coconut products.[1]

3. The Economic Characteristics of British Malaya and of the British East Indies.

British possessions in Malaya and the Eastern Archipelago, whose total area (including British Borneo)[2] amounts to 128,209 square miles, with a population of 4·2 millions, fall into the following four groups :[3]

(i) *The Straits Settlements :* including the Island of Singapore,[4] the Island of Penang (together with Province Wellesley on the mainland opposite Penang),[5] the islands and territory of the Dindings, and Malacca.[6] At first these territories were governed from India, but in 1867 they were united governmentally into the Crown Colony of the Straits Settlements. Their economic essence is to be found in the position of Singapore as the doorway between the West and the Far East. This key position, together with the traditional free port[7] policy that has been followed, has made Singapore (and to a lesser extent Penang), the great entrepôt of the whole of the Eastern Archipelago.[8] The Straits Settlements themselves are merely coastal settlements, having no Hinterland of their own, but since the end of last century they have obtained a tremendous commercial impetus from the marvellous development of the Federated and Non-Federated Malay States.

(ii) *The Federated Malay States :* consisting of the three States of Perak, Selangor, and Negri-Sembilan on the west, and of Pahang on the east. British officials, called

[1] Cf. Fig. 6, p. 11.

[2] The Products and trade of British territory in North Borneo are similar in kind, although greatly inferior in quantity, to those of the Malay Peninsula, and can therefore conveniently be considered at the same time.

[3] Cf. Fig. 7, p. 14, and Table I.

[4] Singapore was purchased in 1819 (from the then independent State of Johore), to the great disgust of the British Government, by the famous Sir Stamford Raffles (cf. R. Coupland, *Raffles*).

[5] Penang was purchased in 1786, from its Malay ruler, in return for the promise of protection against the Siamese.

[6] Malacca came permanently under British rule in 1824.

[7] " Free," that is, to the shipping and merchandise of all countries.

[8] All the ports are " free," but only Singapore and Penang have a large foreign trade.

" Residents," were appointed in these States to " advise " the Native Rulers from 1874 onwards.[1] Gradually an extraordinarily efficient administration was built up, and in 1909 a Federation was formed.[2]

(iii) *The Non-Federated Malay States:* consisting of Kelantan and Trengganu on the east, Perlis and Kedah on the west (to the north of Perak), and Johore in the south. The first four of these States placed themselves under British protection in 1909 and Johore followed suit in 1914. In each there is a British adviser, who is a member of the Malayan Civil Service, and is in a position to exercise control over general administration.

(iv) *The British territories of Borneo: i.e.* British North Borneo, Brunei, and Sarawak, over which British Protectorates were declared in 1888,[3] and a number of small islands in the Archipelago.

The British East Indies are at present commercially negligible, and the Non-Federated States are still at an early stage of development, but it should not be forgotten that fifty years ago the whole of Malaya (except Singapore) was equally backward.[4] The great commercial romance of the last four or five decades has undoubtedly been the wonderful blossoming of the F.M.S.[5] The Non-Federated States and the British possessions in North Borneo have a similar climate, much larger area, and in some districts equally good resources, but the

[1] Perak was placed under British protection in 1874, and the other three States followed this example soon afterwards.

[2] The Government of the F.M.S. is presided over by a High Commissioner, who is also the Governor of the Straits Settlements. Under the High Commissioner, whose headquarters are at Singapore, is the Chief Secretary to the Government, who resides at the Federal capital, Kuala Lumpur (Selangor). A Federal Council, comprising the native rulers and their British advisers, and representatives of the planting and mining interests as well as of the general community, passes enactments and considers the Budget. In each of the four States there is a British Resident to advise the Sultan, and a State Council composed of officials and of unofficials representing important interests (cf. *British Malaya*, issued by the Malay States Information Agency, 57, Charing Cross). For a succinct review of the constitutional position on British Malaya, see the *Times*, June 1, 1927.

[3] British North Borneo and Brunei were acquired (at different times) by the British North Borneo Company which was incorporated in 1884. Sarawak was acquired by " Rajah Brooke " in 1842, who eventually also sought formal British protection.

[4] At this time there was only one white man resident in the interior between Singapore and Bangkok! (cf. *British Malaya*, issued by the Malay States Information Agency).

[5] The history of British Malaya is brilliantly depicted by Sir Frank Swettenham in his *British Malaya*.

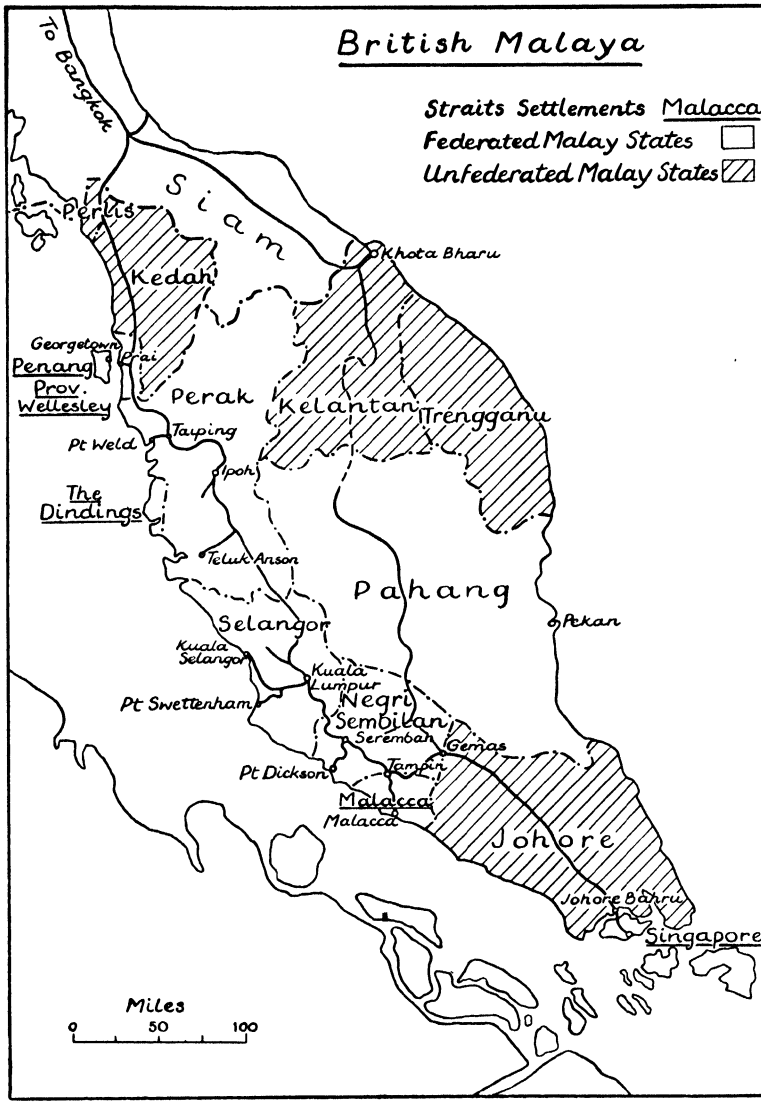


FIG. 7.—British Malaya: Political Divisions and Railways.

point of rapid development has not yet been reached.[1] There appears, however, no unanswerable reason why some of their

[1] "There are huge areas, as good in point of soil as any in Malaya, in all these States" (*i.e.* in Pahang, North Johore, Kedah and Kelantan), "and the only obstacle to their development is the lack of roads" (*Times*, "Trade and

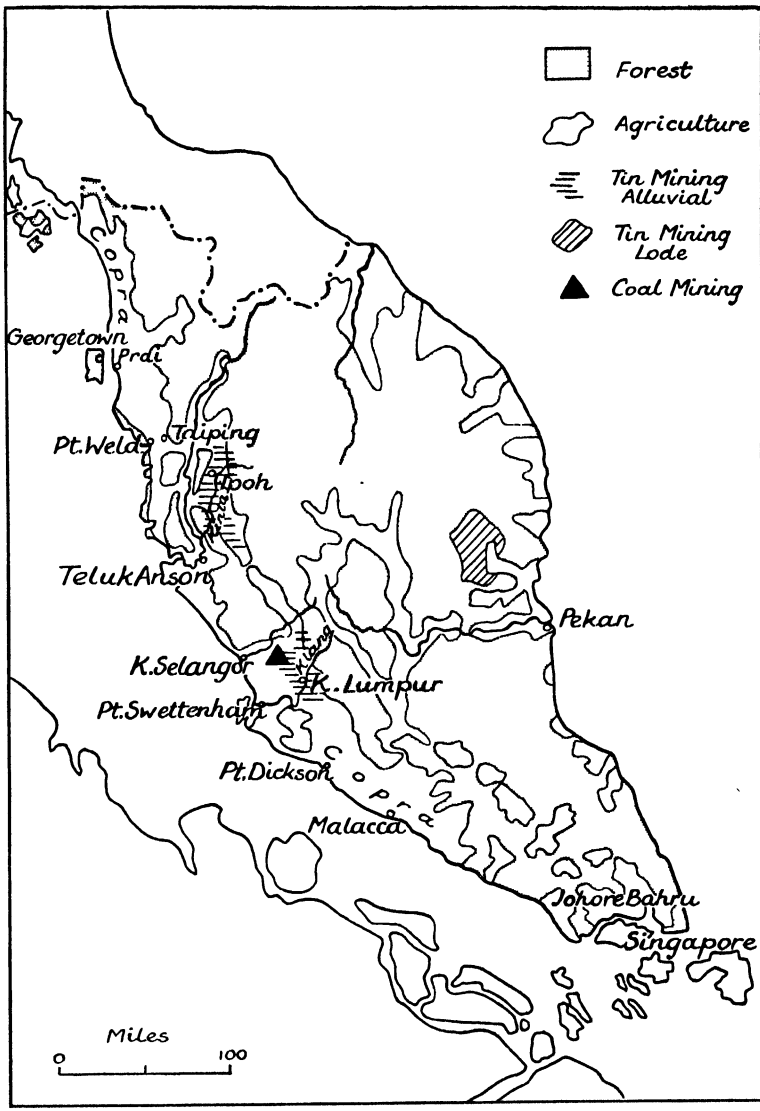


FIG. 8.—British Malaya: Products.

present difficulties (such as lack of communications and scarcity of labour) should not eventually be overcome by methods similar to those already adopted in the F.M.S.

Engineering Supplement," April 17, 1926, p. 94.) In Pahang the F.M.S. Government has already planned a comprehensive road programme.

Before it was partially opened up by roads and railways, the whole of the Malay Peninsula consisted of one great tropical forest, which covered alike the mountain backbone that traverses the country (towards the western side) from north to south, the coastal swamps of the west, and the gentler slopes and plains of the east.[1] About 70 per cent. of the total area is still forest, as compared with only 12·9 per cent. in India.[2] Moreover, the peninsula is naturally difficult of approach; on the west mud and mangrove swamps fringe the coast,[3] whilst access to the east is hindered by sandbanks and surf.[4] There are numerous rivers, but they are of little use for commerce or transport on account of their rapids and shallows.

The North-East Monsoon brings the heaviest rain, as Sumatra shields the Peninsula from the full force of the South-West Monsoon. When the winds change, *i.e.* in October and April, there are violent storms known as "Sumatras." The high temperature and incessant rain (which averages some 100 inches per annum) form ideal conditions for the breeding of mosquitoes and the spread of malaria, which consequently, until quite recently, was the scourge of the country.[5] Hence what is now the prosperous F.M.S. could, in the eighteen-seventies, be described as a wild, malarious jungle, penetrated by no single decent road, and with inaccessible, pirate-infested shores. Slavery, internecine warfare, disorder and confusion prevailed throughout the whole country.

The introduction of British Residents[6] led gradually to the establishment of order and security, and paved the way for the opening-up of the interior by roads and railways. The railways, to the horror of the Colonial Office, were planned and

[1] Aldous Huxley gives a vivid description of the scenery in *Jesting Pilate*.

[2] If Burma and Assam are excluded, the percentage falls to 10.

[3] The only natural harbour in the F.M.S. is Port Swettenham.

[4] This coast is comparable with the east coast of the Madras Presidency.

[5] Cf. Sir Malcolm Watson, *Malaria in Malaya*, and Balfour and Scott, *Health Problems of the Empire*.

[6] At first only one British official, the Resident, was appointed in each State. He had to perform the task of reforming the administration and finance of a State without the help of a European staff, and without any means of enforcing his decisions except by persuading the Malay ruler. Gradually more European officials were recruited, and a highly efficient body of technical experts was eventually employed in the service of each State (cf. Sir Frank Swettenham, *op. cit*). In British Malaya the British official has been seen at his best; just, bold, firm yet tactful, self-reliant, and devoting his life disinterestedly to the best interests of the people of the country.

built (on the metre gauge) by the "man on the spot" under the control of the Local Governments. Construction began in the eighteen-eighties in Selangor,[1] and the first line was opened in 1884 in Perak, *i.e.* an eight miles line from Taiping [2] to Port Weld. By 1903 through communication had been established between the mainland opposite Penang and Seremban (in Negri Sembilan), and by 1909 this line had been extended to Johore Bahru opposite Singapore.[3] Meanwhile a line had been built across the island of Singapore, which was bought by the F.M.S. in 1912, and branch lines led westward from the mainline to all the main ports, such as Malacca, Port Dickson, Teluk Anson, Kuala Selangor, and Port Swettenham. In 1918 through traffic was established with Bangkok (1,118 miles from Singapore) by joining the F.M.S. and Siamese railways. Recently a causeway has been built from Johore Bahru to the island of Singapore, and in 1923 the first passenger train crossed from Singapore to the mainland.[4] In the east lines are nearing completion in both Pahang and Kelantan, which will eventually connect with the western mainline at Gemas, and with the Siamese line.[5] All these railways are under the management of, and most are also owned by, the Central F.M.S. Government. In 1921 over 1,000 miles were open to traffic.

Road-building started as soon as the Government obtained the requisite revenue as a result of the construction of railways, and motor transport now competes vigorously with the railways.[6] In 1922 there were some 3,711 motor-cars in use in the F.M.S. alone.

These improvements in communications led at once to an astonishing development of the finances and economic resources of the country. The period from 1884 (when railway

[1] *I.e.* from Kuala Lumpur (cf. Fig. 7).

[2] The centre of the Perak Government, situated in the heart of the tin-mining district.

[3] The Johore railway is still owned by the State of Johore, but is leased to the F.M.S. It now takes only twenty-three hours to travel from Penang to Singapore in extremely comfortable carriages, with restaurant cars, sleeping accommodation, and electric light and fans.

[4] Cf. pamphlet, *British Malaya* (Malay States Information Agency), p. 16.

[5] Cf. *Times*, "Trade and Engineering Supplement," April 17, 1926, and May 1, 1927.

[6] There were no first-class roads in 1875; now there are some 2,500 miles of metalled roads.

construction began) to 1900, may be called the " tin and railway " era. During these years existing tin-mines, which were then mainly worked by Chinese capital and labour, formed the chief resource of the country and provided (by means of an export duty) a great part of its revenue. Europeans began to work the tin-mines according to modern methods, and production increased rapidly. At the end of the century efforts were made to extend the economic resources of the country by establishing tea, coffee, and cinchona (quinine) plantations, but with little success, owing mainly to climatic difficulties.[1] At last rubber was tried, and, after the experimental period was over, proved an instantaneous success,[2] so that the period since 1900 may be called the " rubber era." The export of rubber from the F.M.S. alone rose from 104 tons in 1905 to no less than 128,000 tons in 1922.

Immediately after their construction the railways began to bring in handsome profits—25 per cent. was paid two or three years after construction—at first because they served existing tin-mines, and later because of the rapidly expanding rubber industry. A good revenue was and still is also obtained from the export duty on tin and rubber,[3] from the opium or " Chandu " monopoly,[4] from postal receipts, and from land [5] and forest receipts. The result is that there is an extremely satisfactory financial position in British Malaya. There is no public debt in the Straits Settlements, and until 1921 there was none in the F.M.S. either. In that year it was decided to raise a loan of £10,000,000 in London on behalf of the F.M.S., the actual flotation being carried out by the Straits Settlements Government. Even this loan has, however, been used for productive purposes.[6]

One of the most striking features about this extraordinarily

[1] In South India and Ceylon earlier and contemporaneous efforts with similar plants proved a great success.

[2] Cf. Chap. VI, s. 2.

[3] Export duties are one of the traditional methods of raising revenue in the East.

[4] The sale of opium used to be " farmed " out, but in 1924 Government smoking saloons were started, and by 1926 all private sale of opium had ceased, both saloons and retail shops having been taken over by Government (cf. Colonial Report on the F.M.S., 1925, p. 16).

[5] The Government owns all unoccupied land in the Straits Settlements and the F.M.S., and collects a small land revenue from all occupied land, in return for assuring security of tenure to the cultivators.

[6] Cf. pamphlet, *British Malaya* (Malay States Information Agency), p. 8.

rapid economic development is that it has been almost entirely originated and carried out by aliens. The Malay has so far contributed little towards the increased prosperity of his country, but, on the other hand, he has not been in any way exploited, nor divested of his land or other means of support, whilst great efforts are now being made to provide him with widespread educational facilities, and to improve public health. The work of development has been accomplished by three main elements in the extremely mixed population: first, by British administrators, engineers and technicians; secondly, by Chinese capitalists, entrepreneurs, merchants, and tin-miners; and thirdly by Tamil (and other South Indian) plantation coolies.[1]

A no less mixed population is to be found throughout the Eastern Archipelago, in Dutch as well as British territory.[2] The relations between the various classes and the scarcity of labour in the less well-developed districts form two of the fundamental problems of the whole Archipelago.

4. The Economic Characteristics of the Dutch East Indies.

The Dutch East Indies comprise a total area of 651,000 square miles, and a population of about 50 millions,[3] and are divided into two parts: (*a*) Java and Madura; and (*b*) the Outer Provinces; *i.e.* Sumatra and the "tin isles" (Singkep, Banka, and Billiton), Dutch Borneo, the Celebes, the Moluccas, Dutch New Guinea,[4] and a number of smaller islands.

Java and Madura, although they comprise less than one-sixth of the total area, contain some 70 per cent. of the total population, and form much the most important part, commercially, of the Dutch possessions. The population of Java is extraordinarily dense, averaging no less than 671 per square

[1] In 1921 the population of the F.M.S. was 1·3 million, of whom 510,000 were Malays, 490,000 Chinese, 305,000 Indians, 5,500 Europeans, and 3,000 Eurasians.

[2] In addition to Chinese and South Indians there are numerous Arab traders. Javanese coolies also emigrate to neighbouring areas.

[3] Cf. Table I, and Fig. 9, p. 20.

[4] Dutch New Guinea is mentioned because it is governed with the rest of the Dutch East Indies, although geographically it forms part of Australasia. British New Guinea and Papua are governed by Australia, the former under the mandate of the League of Nations.

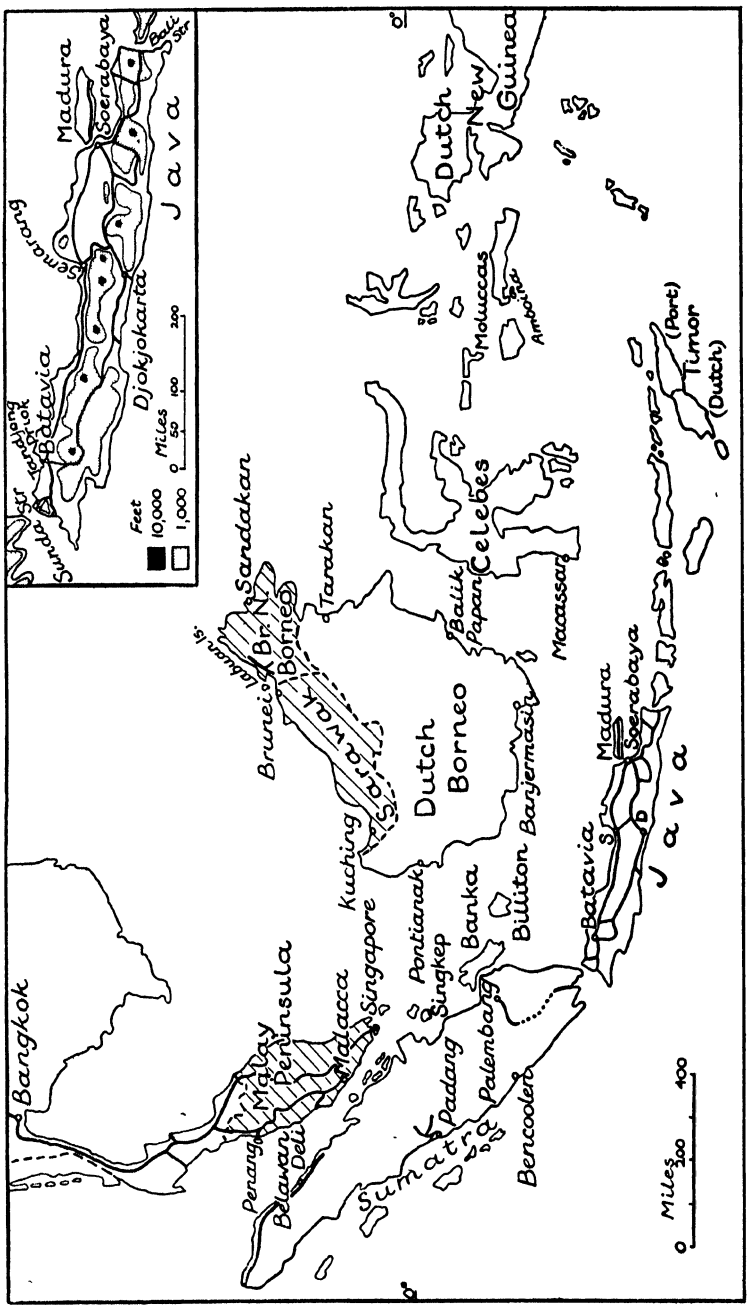


FIG. 9.—The East Indies.

mile, in spite of the fact that it is primarily agricultural. This is in great contrast to the low density of population not only in the Outer Provinces, but also in the British East Indies, and even in the F.M.S. itself. Nevertheless Java is extraordinarily prosperous, owing mainly to its sugar plantations, although recently other plantation cultures have begun to contribute more and more to this happy position.

The Government of these islands has, in the past, been autocratic in character, and a policy of deliberate, conscious, economic development has been pursued, which, although at first it entailed hardship on the indigenous population, resulted eventually in a great improvement in resources and productivity.

When the Dutch first settled in Java they did not attempt to introduce direct rule, but claimed forced labour for Government purposes, and the forced deliverance of spices—then the principal and most highly prized products. Java fell into British hands in 1811, but on its restoration to the Dutch in 1816 the bonds of government were drawn still tighter. The land was partly "Government" and partly "private," but on all alike land revenue (the basic tax) was levied in the form of labour services (one day per head per week) and kind (one-fifth of the produce). For this the villagers were held jointly responsible. A strict trade monopoly was still maintained for Holland, and attention was concentrated upon one or two staple products only, for which there was a large demand in Europe. The management of the Government plantations proved oppressive and corrupt, and did not even pay. Hence in 1831 Van de Bosch introduced his famous "Culture System," whereby the natives were given advances and ordered to cultivate certain crops, particularly coffee, cinnamon, and pepper, which they had ultimately to deliver to the Government at fixed prices. In some cases the advances were given to Dutch planters or contractors (*i.e.* for the production of crops such as sugar, tobacco, indigo, and tea, which require considerable capital and skill).

Under this system the land revenue due in kind had to be paid in the "culture crops," and that due in labour was transferred by the Government to the planters. The Government gained financially, but grave abuses crept in, and the position of the natives became practically that of slaves.

From 1854 onwards reforms were introduced commuting the forced labour into a poll-tax, and by the 'eighties only sugar and coffee remained as forced cultures. The forced culture of sugar ceased in 1898, and that of coffee in 1918,[1] but the Government still maintains cinchona, rubber, and gutta percha estates under its own management.[2] There are now strict regulations controlling the extension of the export crops to new land, designed to prevent the natives from being deprived (even by fair sale or lease) of sufficient land for their subsistence crops.[3]

During the course of the nineteenth century ultimate control of the islands tended to pass more and more from the local Colonial Governments to the Home Government at the Hague, and as this took place the policy pursued became more liberal and humane. As we have just seen, forced labour and culture have now been practically eliminated, and the former harsh treatment of the natives has been greatly modified.[4] Nowadays legislation is passed and the general policy is laid down at the Hague, whilst a Central Colonial Government at Batavia controls and supervises the work of the provincial and local administrative bodies and officials. In 1918 a new, so-called " ethical " policy was adopted at the Hague, which purported to give consultative powers to native representatives, but for a time the actual administration altered in fact but little, and there was even a reaction against the grant of additional powers to the people, on account of the Bolshevist outbreaks. In 1925, however, an Act was passed vesting the " Volksraad " (" People's Council ") with wider functions, including the power of voting on the Budget. To-day there is even a proposal under consideration to give native representatives a majority on the Volksraad.[5]

Since the abolition of forced labour and forced culture a

[1] *Handbook of the Netherlands East Indies*, p. 142.

[2] At first cinchona was produced on Government estates only, but now it is also produced on a number of private estates.

[3] Cf. Fowler, *Netherlands East Indies and British Malaya*; Ranade, *Essays in Indian Economics*; and the *Handbook of the Netherlands East Indies*.

[4] The relations between the Dutch rulers and their subjects, however, still remains a problem, as witness the numerous recent outbreaks in Java attributed to Bolshevism.

[5] Cf. *Times*, Sept. 22, Dec. 21, Dec. 23, 1927, and May 4, 1928. The Volksraad was instituted in 1918, and at present there are thirty Dutch and twenty-five non-European members. The Assembly does not possess full legislative power, but exercises advisory functions.

revolution has taken place in the methods of production adopted on the Javanese plantations. The sugar industry, in particular, has become a model of scientific cultivation and good organisation to the whole world, and has entirely altered the relations between cane and beet in the world sugar markets.[1]

Java and Madura are now supplied with an efficient system of 5,339 kilometres of railways, about half of which belong to the State.[2] The lack of branch lines is compensated for by an excellent road system, suitable for motor traffic. In Sumatra there are only 1,531 kilometres of railways, and those are distributed between three separate systems (in the north-east, west, and south-east) that are unconnected with each other, but here again, as in the rest of the Outer Provinces, where there are no railways, there are good motor roads. A scheme for the electrification of the railways has recently been put forward by the Government, but, in spite of great potentialities for the generation of hydro-electricity, owing partly to certain physical difficulties in storing the water,[3] little progress has yet been made.

5. The Economic Characteristics of Persia, Iraq, British East Africa and Mauritius.[4]

Apart from the recent work of the Anglo-Persian Oil Company,[5] the economic condition of Persia has apparently changed but little for many centuries. Climatic and physical features, together with the continuance of political instability and unrest, have combined to prevent the country from emerging from a stage of mainly self-sufficing production.

Persia occupies the western and major part of the great Iranian Plateau, and has an area of some 628,000 square miles and a population estimated at about 10 millions. A great belt of desert, varying considerably in breadth, stretches right

[1] Cf. Chap. VI, s. 1.

[2] Cf. Fig. 9, p. 20.

[3] There is a scarcity of suitable solid rock bottom in the catchment areas (cf. *Handbook of the Netherlands East Indies*, p. 285).

[4] In this section more space is devoted to Persia, Iraq, etc., in comparison with India, Malaya and the East Indies, than the size of their trade merits. This has been done in order to give some idea of their commercial condition and potentialities, which would otherwise not be discussed at all, as the coming pages (apart from Chap. IV) deal almost entirely with the trade of the three main areas of the ocean.

[5] Cf. Chaps. IV and VII.

across the plateau, from north-west to south-east. Forested lowlands, with a plentiful rainfall, border the Caspian Sea and form the most fertile, and what may be called the "Mediterranean," portion of the country. Here, and in parts of the highlands of the plateau, fruit of many kinds grows plentifully, and provides (both fresh and dried) an important part of the total exports of the country. The vegetation of the higher regions of the plateau is northern in type, but steppe vegetation prevails over the greater part of the plateau, much of which (apart from the relatively well-favoured Urmia basin) has a normal rainfall of only 13 or 14 inches. Although the rainfall is rather greater on the coast of the Persian Gulf, it falls off very quickly as one passes inland, so that even quite near the sea "Saharan" vegetation prevails. Thus the date-palm is the principal product both of the coastal region and of a large part of the interior. Wheat (in the higher lands), rice (where there is sufficient rain to make irrigation possible), barley, maize, the millets and various pulses are grown mainly for local consumption.[1] Cotton (of poor quality),[2] opium, oilseeds and silk are also produced. Wool of good quality is produced and forms an important item of export, but domestic animals are scarce and dear, owing largely to the scarcity of fodder. A number of artistic indigenous industries, such as the carpet and silk industries, are carried on, the former largely for export, but so far all attempts at introducing large-scale, modern, machine-using industries have failed, largely on account of the primitive, inadequate, slow, and expensive methods of transport, which also prevent commercial use from being made of the mineral deposits (including rich coal seams) of the country.[3]

In spite of the promulgation of a revised constitution, with nominally representative institutions, in 1906,[4] and of the attempts made by Britain and Russia to develop the resources

[1] Rice is normally exported to Russia. The bulk of the rice is irrigated, but a certain amount is grown in the Caspian littoral, where irrigation is unnecessary (cf. Fateh, M. K., *The Economic Position of Persia*, 1926, Chap. II).

[2] Persian cotton is normally exported to Russia.

[3] One or two textile factories have recently been started at Tabriz, Tehran, and Isfahan, and a match factory at Tabriz. Cf. D.O.T. Report on the Finance and Commerce of Persia, 1925–27 (1928).

[4] The ruling classes in Persia continued to be notoriously corrupt and irresponsible in spite of this reform.

of the country after the delimitation of their respective "spheres of interest" by the Russo-British Convention of 1907,[1] misgovernment continued up to the upbreak of the War, at which time Persia was in a most miserable economic and financial[2] position. Although strict neutrality was proclaimed on the outbreak of war, it was not long before the Turks invaded the country, and the subsequent military operations frustrated any attempts at economic or financial recovery and improvement.[3]

After the conclusion of peace a Persian delegation attended the Peace Conference, and secured the abrogation of the Convention of 1907. This led to the signing of two agreements between Great Britain and Persia. The first laid it down that Britain would respect Persian independence, and would help to restore order, supply expert advisers, and co-operate with the Persian Government in the task of improving communications and transport. A loan was to be arranged in order to place the Persian Government on its feet again, and a Joint Committee was appointed to revise the tariff.[4] On May 10, 1928, a new treaty was signed between Great Britain and Persia, recognising Persian tariff autonomy and abolishing extra-territoriality.[5] Pending the conclusion of

[1] This Convention delimited the areas within which Russia (in the north) and Great Britain (in the south) could obtain commercial concessions. Both countries reserved the right to assume control over the Persian revenues in their respective spheres of influence if Persia failed to meet her liabilities with regard to the loans raised in Europe from time to time. British interests were recognised as supreme in the Persian Gulf, in spite of the strenuous efforts of Germany to extend her influence both there and in the interior. Nevertheless Germany had succeeded in obtaining several trading stations on the Gulf, and the Hamburg-Amerika Company inaugurated a shipping service to Persia in 1906.

[2] The American financial mission of 1911, failed hopelessly (cf. *Encyclopædia Britannica*, 11th Edition, article "Persia").

[3] British troops protected the refineries of the Anglo-Persian Oil Company at Abadan, and during the subsequent campaign incidentally considerably improved the roads.

[4] In 1899 a 5 per cent. *ad valorem* duty had been imposed on all imports, the customs administration being in the hands of Belgian officials. (Previously the customs had been "farmed out.") In 1903 a most-favoured nation treaty came into force with Russia, Great Britain being already on the most-favoured nation basis. In 1920 a higher tariff than that previously in force was introduced on the basis of specific duties, working out at about 10 to 15 per cent. *ad valorem* on tea, sugar, matches, spices, piece goods, etc., and at about 25 per cent. on luxuries such as motors, bicycles, soap and dyes. This applied to all countries except Russia, for which the 1903 tariff held good, until a new agreement was signed (between Persia and Soviet Russia) in the autumn of 1927 (cf. *Times*, Sept. 11, 1928).

[5] *I.e.* British subjects are henceforth to be subject to the jurisdiction of the Persian Courts (cf. the *Times*, May 12, 14, 15 and 17, 1928).

a treaty of commerce and navigation the present Persian minimum tariff is to be enforced. Persian tariff autonomy has since been recognised by France, Belgium, the United States, and Germany. This means that Persia, which is already a member of the League of Nations, has now taken the final step towards independence and full statehood.

The second agreement defined the terms of the promised loan ; *i.e.* £2,000,000 were to be lent at 7 per cent. redeemable in twenty years.

Since then an American financial mission has been at work,[1] and considerable financial reorganisation has been accomplished. Up till 1925 the objective appeared to be the reorganisation of Persian finances in order that foreign capital might be obtained on reasonable terms for public works (especially railways, as little attention has so far been devoted to irrigation), and general economic development. In 1925 a new financial policy was adopted, whereby all idea of obtaining more foreign capital appears to have been relinquished. Persia is now to rely entirely upon her own capital resources, and new taxation is to be introduced to provide the necessary revenue.

The first application of this new policy was made in 1925, when, under the "Sugar and Tea Monopoly Law," a surtax was imposed on imported sugar and tea, with the object of creating a fund to be used for railway construction. A further step was taken in February 1926, when a "compounded road tax," leviable only at the frontier, replaced the old road taxes that had been previously levied, at various rates, on internal as well as external trade, on all the main commercial routes. The whole of the proceeds of the compounded tax is to be devoted to the improvement of transport (instead of only about 50 per cent. of the revenue from the old toll system), and in addition the rate charged has been raised, so that considerably more money will in the future be available for transport improvements. Motor traffic has already increased since 1926, and lorries are beginning to oust caravans on the Khanikin-Tehran, Bushire-Tehran, Duzdap, and other important routes.

It is to be feared, however, that development cannot be very rapid if Persia is to rely solely on her own, very in-

[1] Cf. *Asiatic Review*, Oct. 1927, "Persia."

adequate, financial resources, especially if the burden on trade is to be thereby increased. In 1926 no less than 28·4 per cent. of the total revenue of the State was derived from customs, 15·6 per cent. from royalties from the Anglo-Persian Oil Company, and 11·8 per cent. from the road taxes. The other main sources of revenue were indirect taxes (providing 11·0 per cent. of the total revenue), and direct taxes (providing 19·0 per cent.). These five sources of revenue therefore provided 85·8 per cent. of the total. Since then the surtax on sugar and tea has been imposed, so that these articles have to pay the ordinary duty of 10 per cent., the surtax which increases the rate to 17·9 per cent., and the road tax, which brings up the total to 21·4 per cent.[1] Thus Persia, a country with no important industries to protect, is surrounded by a tariff wall that would be considered high in a predominantly industrial country. A policy of constructive economic development can hardly be built on such a restricted basis.

Up to the present the development of Persian trade has been almost entirely held up by the political disorders and concomitant financial difficulties which have resulted in the retention of primitive economic organisation in general, and in the lack of transport facilities in particular. Where material progress has been made it has been the result of the efforts of a few European companies, particularly of the Anglo-Persian Oil Company, which have, however, had to contend with almost overwhelming odds, particularly in the sphere of transport.

Most of the Persian roads are still mere mule tracks, which —except in the plains in the dry season—cannot be utilised by wheeled vehicles. It is true that five main roads were constructed (with European capital) towards the end of the nineteenth century, but even on these roads transport has been checked and made excessively costly by the toll-system that was in force until 1926.

Practically no progress has yet been made with railway construction, in spite of the numerous (highly controversial) schemes promulgated by Russia, Germany, and Britain before the War. At present only two short commercial lines exist, in all just over 200 miles in length, the one from Duzdap, in the extreme east, to the Indian frontier, where it connects with the Indian railways, and the other—built

[1] Cf. D.O.T. Report on Persia, 1925–27 (1928).

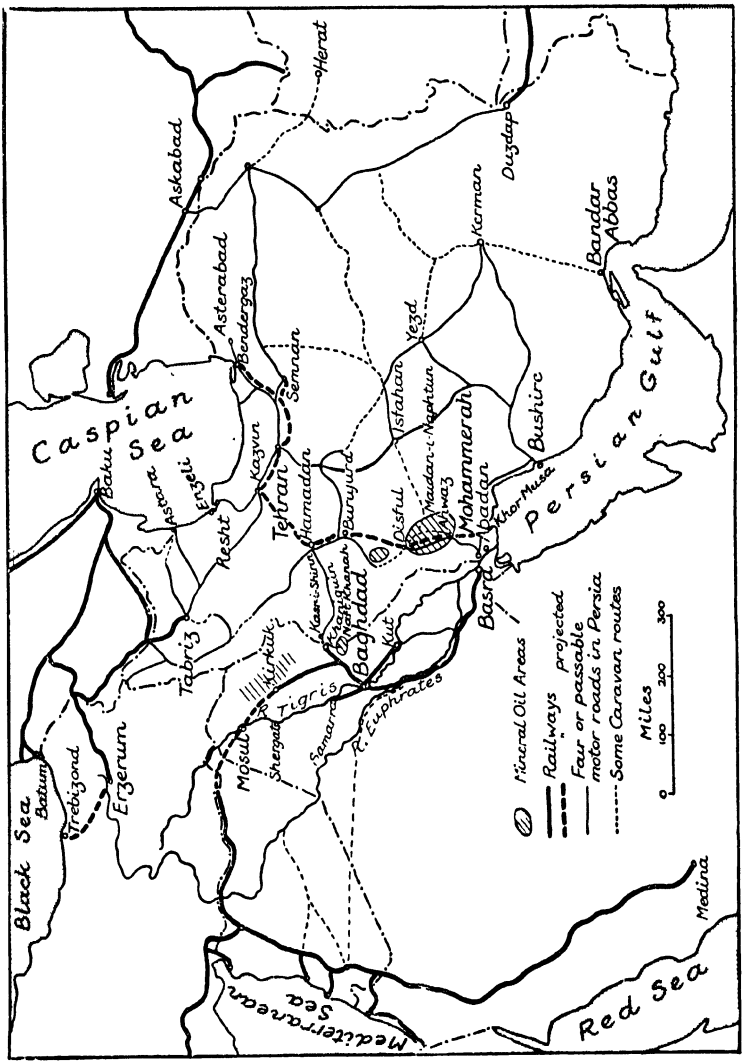


FIG. 10.—Persia and Iraq.

in 1916, but already in a ruinous condition—from Tabriz to the western frontier, where it connects with the Caucasian railway system.[1] Recently a bold programme of construction has been adopted, which aims at building a railway from Bandar Gaz (or "Bendergaz," on the shore of the Caspian)

[1] Cf. Fig. 10, and D.O.T. Report on Persia, 1925–27 (1928), p. 25. Trains run on this line only two or three times per week.

and from Khor Musa (near Mohammerah on the Persian Gulf), to Tehran. The line has already been partially surveyed by U.S. engineers, part of the necessary capital has already been raised by additional taxation, and it is proposed to begin construction from both ends.

Unfortunately there is reason to suppose that the project is engendered by political jealousies,[1] rather than by sound economic motives. The capital cost will be great, there is no existing local produce which will give a quick return, the proposed route will compete at important points with existing motor roads, and neither terminus has much to recommend it.[2] It has been suggested that a sounder plan would be to concentrate for the present upon constructing a good network of roads, usable by motor traffic, in view of the existence of easily accessible supplies of petrol from the Baku fields in the north, from the Anglo-Persian oilfields in the south, and (possibly) from Iraq in the west.[3]

However this may be, it is clear that no rapid commercial expansion is to be expected from Persia until communications have been improved, and the excessive burden on trade removed, and that for many years to come her commercial importance from the point of view of the trade of the Indian Ocean is likely to be confined mainly to the activities of the Anglo-Persian Oil Company.

Commercially, Iraq is as backward as Persia, without the stimulus imparted by the development of the oilfields in the latter country.

Iraq has an area of 116,500 square miles, and a population of 2·9 millions.[4] The climate is "continental sub-tropical,"

[1] The idea appears to be to terminate once and for all Persia's dependence upon Baghdad and Trebizond, through which at present a large part of Persia's foreign trade passes. Persia still declines to recognise Iraq as an independent State, and her relations with Turkey, and with the U.S.S.R. have been very unsatisfactory. Hence it can be said that only in the case of Afghanistan and India has she so far managed to establish satisfactory relations with her neighbours (cf. *Asiatic Review*, Oct. 1927, "Persia").

[2] Cf. *Asiatic Review*, Oct. 1927, "Persia." A more favourable view is taken of the project in the *Times*, April 12, 1928, and Sept. 11, 1928.

[3] If the road from Mohammerah to Tehran were improved, considerable areas suitable for cotton-growing would be opened up. At present the cotton is dirty, broken, and short-stapled. A motor road would undoubtedly prove a serious rival to the Iraq route for various products.

[4] The population is predominantly Arab, but includes also a strong Turkish urban element, nomadic tribes, Baghdad Jews, Chaldean and Armenian Christians, etc.

and is remarkable for its great daily and annual ranges of temperature, and for its extremely scanty rainfall, the whole of which falls during the winter months. The summer temperature is scarcely surpassed in any other part of the world, although severe frost is often experienced in winter.[1]

In the south the mean annual rainfall is less than 7 inches per annum, which necessitates irrigation for all agricultural purposes. In the north, although the winter rainfall is great enough to permit winter crops to be grown without irrigation, this is not possible with summer crops.[2] The chief summer crop is rice (grown on the marshlands of the Tigris and Euphrates), and the chief winter crops are wheat and barley. Considerable quantities of cereals are exported, as well as locally consumed, but—as is also the case with sugar and tea [3] —Persia forms the chief foreign market, so that these goods do not enter to an appreciable extent into the trade of the Indian Ocean.

Many hand-industries (dyeing, tanning, leather-working and silk-spinning and weaving) are carried on for local markets only, and large flocks of sheep are kept and their wool and skins are exported. Much attention has recently been paid to the cultivation and manufacture of cotton, both by the British Cotton Growing Association and the Department of Agriculture. The former has recently erected a modern ginnery capable of dealing with 10,000 bales per annum. The bulk of the trade, however, is land-frontier, not overseas trade.

Great hopes are entertained of the development of petroleum fields in Iraq in the future. Concessions have been obtained by both the Turkish Petroleum Company (in 1925) and the Anglo-Persian Oil Company. Signs of oil have been found in many places, and a new "gusher" has recently been discovered,[4] but commercial exploitation has not yet begun.

Although Iraq is still commercially backward, considerable economic improvements have already been introduced under

[1] The thermometer not uncommonly registers 120° F. in the shade at Baghdad and Basra.
[2] The annual rainfall at Mosul is under 17 inches.
[3] Still larger quantities of sugar and tea are imported.
[4] Cf. Chap. VII, s. 2.

British administration,[1] especially in the sphere of Public Works. Whereas in 1914 there were only 74 miles of railways (built by the Germans from Baghdad northwards to Samarra), by 1920 there was a whole network, including (*a*) the metre-gauge lines from Basra to Baghdad (354 miles), Baghdad to the Persian frontier (130 miles), an extension of the latter to Kifri (50 miles) and to Kirkuk, and the line from Baghdad to Kut (104 miles); (*b*) the standard-gauge line from Baghdad *via* Samarra to Shergoat (186 miles); and (*c*) other less important lines.[2] In 1927 the route mileage open to traffic was 186 miles of standard (4 feet $8\frac{1}{2}$ inches) gauge, and 624 miles of metre gauge.

A modern port has been constructed at Basra, and the navigable channel has been greatly improved. Irrigation has also been stimulated under the care of the Irrigation Department—formed in 1917. The Agricultural Department is also doing excellent work.[3]

Finally, it may be noted that a British Financial Commission reported in 1925,[4] and that the economies introduced as the result of its recommendations have already converted the former annual deficit into a surplus,[5] whilst the railways also now bring in a fair net return.[6]

[1] After the conclusion of the War a temporary Mandate over Iraq was conferred upon Great Britain by the Allies. After several troubled years a new Constitution was promulgated by King Faisal, and the Constituent Assembly accepted a treaty with Great Britain. Meanwhile a frontier Commission was at work, and reported in 1925. The League of Nations accepted this report and also the terms of an amended treaty (subsequently agreed to by King Faisal's Government) between Great Britain and Iraq, which proposed to prolong the existing relations between the two countries for twenty-five years, or until the admission of Iraq to membership of the League. This meant that Iraq was governed by its own Constitution, under the Mandatory control of Great Britain. On Dec. 14, 1927, in view of the satisfactory progress made by the Kingdom of Iraq, a new treaty was concluded between the two countries, whereby Iraq is recognised as an independent sovereign State, and His Britannic Majesty undertakes, if all goes well in the meantime, to support the candidature of Iraq for admission to the League of Nations in 1932. King Faisal, for his part, undertakes to respect the interests and rights of foreigners in Iraq, and to accede to certain international agreements concluded with the approval of the League of Nations (cf. *Times*, Dec. 21, 1927).

[2] Cf. Fig. 10, p. 28; cf. *Times*, Jan. 10, 1928. A proposal has recently been made to extend the metre-gauge line from Kirkuk to Mosul, a town with a population of 100,000.

[3] For an interesting account of irrigation in Iraq see the *Times*, July 22, 1927, and a letter commenting on that article in the *Times*, Aug. 3, 1927.

[4] Cf. Cmd. 2438, 1925.

[5] Cf. *Times*, Jan. 26, 1928.

[6] *I.e.* Rs. 9,71,014 in 1925. An income-tax has recently been introduced for the first time (cf. *Times*, May 30, 1927).

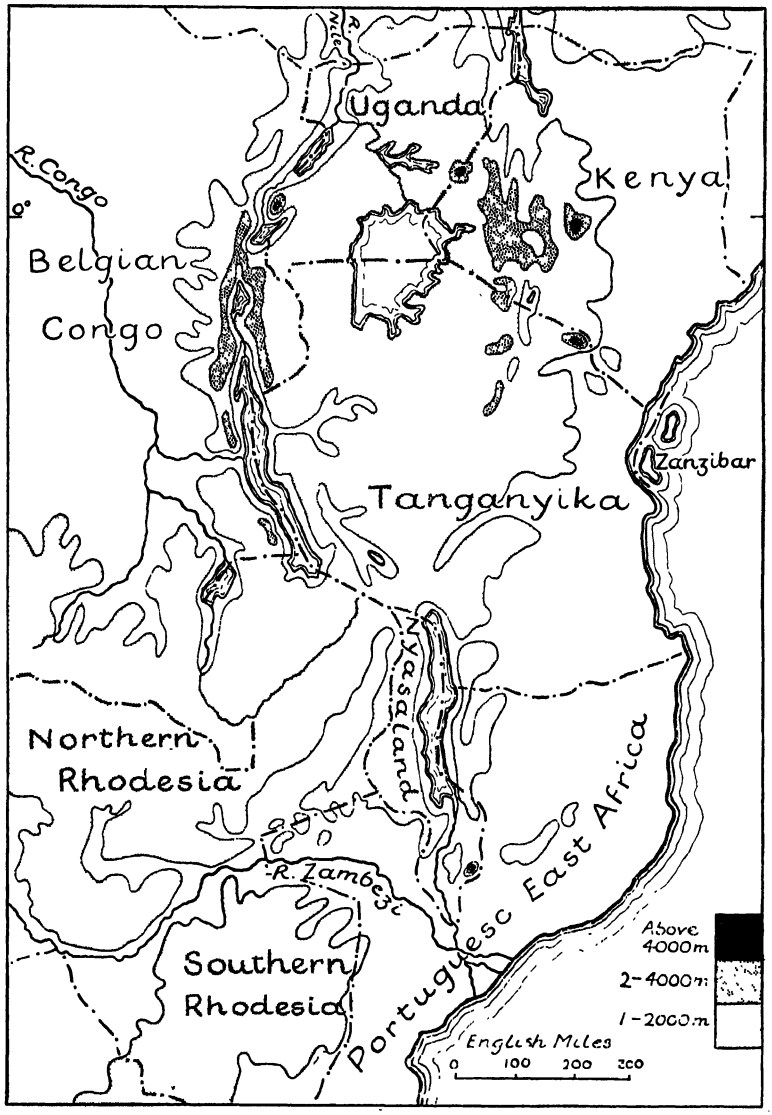


FIG. 11.—British East Africa: Relief and Political Divisions.

British East Africa includes an immense area of more than 1 million square miles, with a population (in 1921) of some 12 millions, 60,000 of whom are Asiatics and 18,000 Europeans (more than 50 per cent. of whom live in Kenya). It consists

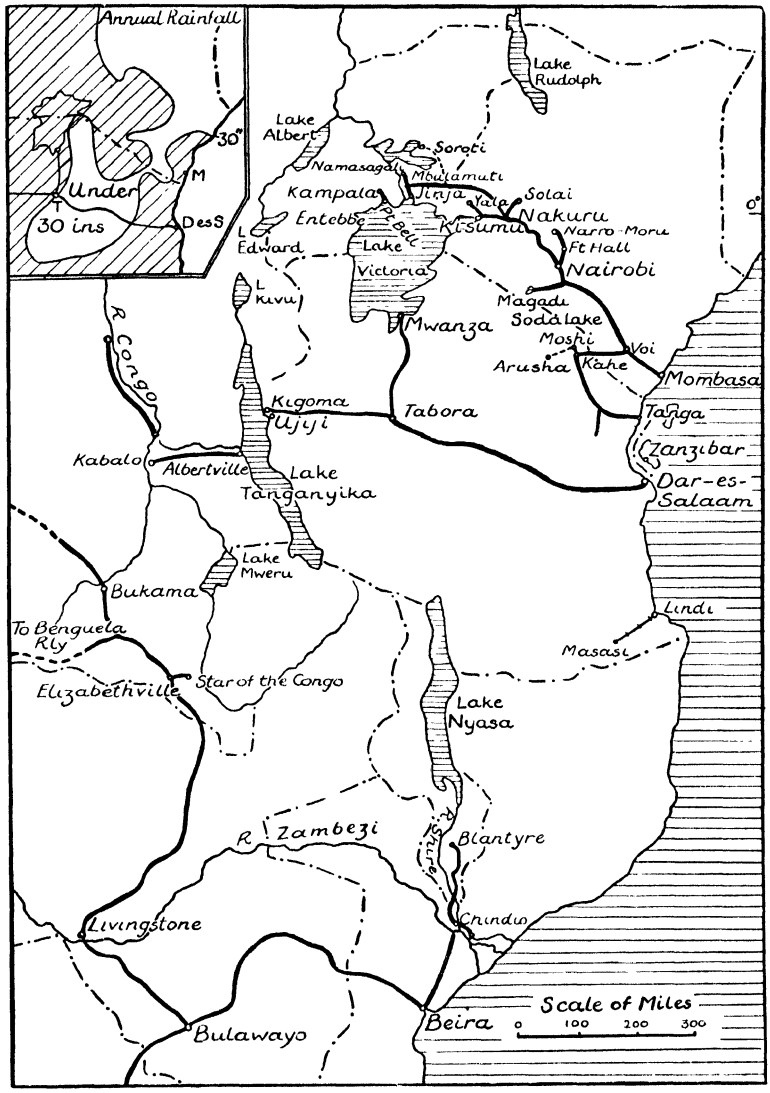


FIG. 12.—British East Africa: Railways.

of six separate areas, Kenya, Uganda, Zanzibar, the Mandated territory of Tanganyika, Northern Rhodesia, and Nyasaland. All of these may be considered to face on to the Indian Ocean for trade purposes, but at present their total

trade is so small and their communications so defective[1] that in practice only Kenya, Uganda, and Tanganyika are of any commercial importance.[2] The only ports with any trade worth considering are Mombasa (Port Kilindini), serving Kenya and Uganda, and Dar-es-Salaam (in Tanganyika).[3] Even these do not deserve to be placed in the same rank with the ports of India, the East Indies, and the Persian Gulf. Nevertheless, on account of their great commercial potentialities, some attention must be paid to the economic characteristics of these colonies.

East Africa has no obvious economic attractions comparable with those which early attracted European traders to West Africa, so that the penetration of the interior in the nineteenth century was due largely to the efforts of explorers, missionaries and anti-slave trade enthusiasts, although it is true that Indian traders had for many centuries hawked their goods inland as well as on the coast.

The fertile islands of Zanzibar and Pemba produce cloves on large plantations, whose labour was, until recently, supplied by slaves recruited (at frequent intervals, owing to their appalling death-rate) from the interior. These islands back upon a narrow fertile coastal strip producing mainly coconuts. Further inland the plateau rises in terraces from the coast, leading up to the healthy and favoured highlands, populated partly by pastoral tribes, but suitable also for agriculture and various types of plantations. The highlands of Kenya are intersected by the well-watered Rift Valley, and are contiguous with the highlands of Tanganyika, Nyasaland, and Northern Rhodesia.[4] Unfortunately, however, they are separated from the fertile coastal littoral by a strip of arid country, which stretches down from the extensive desert areas of North and North-East Kenya, which are inhabited only by a scanty population of nomadic tribes. This has greatly accentuated the difficulty of opening up (and of settling) both the Kenya Highlands and Uganda. The latter colony

[1] Cf. Fig. 12, p. 33.

[2] Nyasaland and Northern Rhodesia are, of course, situated entirely inland. Nyasaland uses Beira, and Northern Rhodesia the South African Railways and the Cape ports, for the extremely small overseas trade.

[3] Tanga (in Tanganyika) and Zanzibar also have a small foreign trade.

[4] The lack of communications, however, in practice isolates these colonies from each other (cf. Figs. 11 and 12, pp. 32, 33).

consists of a fertile lake coastal area, and highlands (comparable with those of Kenya) sloping downwards towards the forests of the Upper Nile, but was entirely cut off from ocean commerce until the completion of the " Uganda " Railway [1] in 1902.

It is impossible to generalise about the climate and rainfall of these wide territories, but it may be noted that the tropical situation of Kenya, Uganda, and Tanganyika is partially counteracted by high altitude, so that many of the staple products are articles usually associated with the subtropics, whilst certain districts are actually suitable for white settlers. These three colonies all have two wet and two dry seasons, and although the average rainfall is high, certain areas are liable to drought. The climate of Tanganyika is very similar to that of Kenya, except that it has no arid strip, although otherwise its rainfall is slightly lower. The climate and rainfall of Uganda are similar to those of the Kenya Highlands.[2]

British Protectorates were declared in Uganda in 1894 and in Kenya in 1895. The former became a " colony " in 1905, whilst in 1920 Kenya was reorganised and divided into two parts: Kenya Colony (with Legislative and Executive Councils) and Kenya Protectorate (under a High Commissioner), both being united under the same Governor-General. Tanganyika passed from German into British hands during the War, and was assigned under Mandate to Great Britain in 1922.

In 1894 there was no agricultural development (beyond self-sufficing native culture) and there were no white settlers in Kenya or Uganda. Economically these countries were looked upon merely as a trading area for Indians.

The economic turning point came with the decision to build a railway from the coast (Mombasa) to Port Florence (or " Kisumu ") on Lake Victoria Nyanza. The railway was built (in the face of terrible difficulties and great loss of life) [3]

[1] This railway was at first confined to what is now Kenya, and did not enter Uganda territory until 1928.

[2] Cf. *The South and East African Year Book*, 1927.

[3] The enemies encountered ranged from the natives, who wished to tear up the lines in order to use the material for their own purposes, to lions and the tse-tse fly. The actual conformation of the land was also difficult, whilst it was a terrible problem to provide adequate supplies of food and drink for the workers.

with the help of Indian coolies, between 1895 and 1902. Since then branch lines have been built to the Magadi Soda Lake (in 1914); from Voi to join the more northerly of the two Tanganyika lines (during the war); and quite recently the main line has been extended from Nakuru over the border of Uganda, *via* Tororo to Mbulamuti, where it joins a previously constructed short line which extends from Jinja, on the Lake, northwards into the cotton area.[1] The main line, therefore, now extends round the head of Lake Victoria Nyanza right into Uganda.[2]

Tanganyika has a German-built main line from Dar-es-Salaam *via* Tabora to Ujiji (on Lake Tanganyika), a new branch line from Tabora to Mwanza, and a short, more northerly line from Port Tanga to Kahe (where it joins a branch of the Uganda railway). The colony also has rail communication with Central Africa by means of a line starting from the farther side of the lake, that ends on a navigable stretch of the Congo. Northern Rhodesia and Nyasaland are very inadequately provided with railways, and those that exist connect with the South African and Portuguese East African systems, not with the railways of British East Africa.[3]

[1] Cf. Fig. 12, p. 33, and the *Times*, Jan. 10, 1928. Until this line was built there were, in Uganda, only two short lines, from Kampala to Port Bell (7 miles) and Jinja northwards (62 miles), and cotton could only be profitably marketed if it was grown within 50 miles of the Lake. The lines recently completed and at present under construction in British East Africa are mainly being financed by a £10,000,000 loan from the Imperial Government, which was floated in accordance with the recommendations of the 1925 Report of the Royal Commission on East Africa. Part of the loan is being used for roads and harbours, for instance to improve facilities at Kilindini, the port of Mombasa (cf. Fig. 12, p. 33). A loan of £8,500,000 was floated by the Colony itself in Nov. 1927, to be used partly to repay some of the Colony's commitments to the British Treasury (some £6,500,000 were borrowed from the Treasury between 1921 and 1927), and partly for port and railway works. A minor portion of the loan is to be used for educational, medical, and commercial purposes (cf. *Times*, Nov. 5, 1927).

[2] The construction of two branch lines (from Kisumu to Yala, in North Kavirondo, and from Gilgil, on the main line northwards to Thomson Falls) has already been sanctioned. It is proposed to extend the main line to Kampala and eventually to the Belgian Congo. As the extension of the Angola railway to the Katanga copper mines in the Belgian Congo has recently been sanctioned (cf. *Times*, Dec. 31, 1927), eventually Uganda will be connected by rail with the port of Benguela on the West coast of Africa, as well as with Mombasa on the east coast.

[3] Cf. Fig. 12, p. 33. The short railway line from Blantyre southwards (in Nyasaland) does not yet actually connect with the Portuguese line to Beira, as the Zambesi has not yet been bridged at this point. It may here be noted that all the lines in Kenya, Uganda, and Tanganyika are metre-gauge, those in Nyasaland and North Rhodesia are 3 feet 6 inches gauge, and the short stretch from Lindi to Masasi is 2 feet gauge.

Shortly, we can say that in British East Africa there are only two main lines running from west to east to the coast, a few more or less isolated branch lines, and no completed lines running north and south to link up the separate colonies. Much of the transport is therefore still performed by very primitive means, *i.e.* chiefly human porterage, as animal transport is prohibited in many areas by the tse-tse fly.

Even this limited railway construction has provided an enormous stimulus to production and trade, especially to the production of cotton in Uganda, and to plantation production by white settlers in Kenya (and also, to a lesser extent, in Tanganyika).[1]

Cotton (especially Allen's Long Staple) [2] does extremely well in Uganda, no irrigation being necessary, and the fatal "boll weevil" being unknown.[3] It is grown in small patches by the peasants. The ginning and marketing of the cotton is organised by the Government, through the "Cotton Control Board." Since the building of the Uganda Railway the production and export of cotton has increased by leaps and bounds, and its further extension is only limited by the lack of adequate transport facilities.

White settlers were invited to go to Kenya in 1904 and given large tracts of suitable land, on which they grow chiefly coffee, maize, and sisal hemp. Another era of settlement by white farmers or planters occurred in 1919, when many ex-soldiers were induced to settle, and commercial progress has been practically confined to the products of the white planters.

The introduction of white settlers has, however, also led to Kenya's chief problem, that of the relations between the settlers and both the native tribes and the Indian traders. The alienation of large tracts of land and the reservation of the best parts of the Highlands for the white settlers have led to that widespread discontent, political and economic, which at present threatens the whole future development of the colony. In addition there is the closely-related problem of obtaining a labour-supply for the plantations. The natives

[1] In 1921 there were 2,400 Europeans in Tanganyika, as compared with 10,000 in Kenya (and only 1,200 in Uganda).

[2] An American type, first introduced in 1910.

[3] It is now (1928) rumoured that the boll weevil has made its appearance in Uganda.

are unwilling voluntarily to leave their reserves and work on the plantations, and various more or less legitimate attempts have been made to force them to work thereon.

In Tanganyika a rather similar policy, but with more barefaced forced labour, was pursued by the Germans, but the land rights and personal freedom of the natives are now secured under the terms of the Mandate upon which British control in Tanganyika depends.

The last area with which we are concerned is Mauritius, an island of only 720 square miles and a population of 376,680 in 1921, of whom 265,461 were Indians, many having been originally brought out under the indentured system.[1]

Although so small, Mauritius comes second only to British India as a producer of sugar within the Empire. One-third of the total acreage is under sugar, producing some quarter of a million tons, which is marketed on a co-operative basis by the " Sugar Planters' Syndicate " (formed in 1920).[2]

Having obtained some idea of the resources and stage of economic development attained in each of the great trading areas of the Indian Ocean, we can now proceed to consider more strictly commercial matters, beginning with a description of the main lines and objects of trade of the Ocean.

[1] Cf. Blue Book for Mauritius, 1925. The identured system was stopped in 1910, but was resumed temporarily in 1923 and 1924. The results were disappointing, many immigrants returning to India. The fact that the density of population is over 500 per square mile probably explains this failure.

[2] Cf. Chap. VI, s. 1.

CHAPTER II

A GENERAL VIEW OF THE TRADE AND TRADE ROUTES OF THE OCEAN

1. The Indian Ocean as a Provider of Produce in great demand in the Industrialised Countries of the West.

The lands of the Indian Ocean provide vast and varied supplies of foodstuffs and raw materials that are in great and increasing demand in the industrialised countries of the West. To this area come a large proportion of all the homeward bound merchant vessels of Great Britain, the Continent, and the United States that are engaged in world-wide, as contrasted with coastal, trade. They start out from the Home Countries loaded with every variety of manufactured goods—especially textiles, iron and steel goods, machinery, plant and hardware—together with coal and, in the case of the United States, mineral oil. These goods they deposit partly in Europe or Africa, *en route* for the Indian Ocean; partly at the great ports of the Ocean; and partly in Australia or the Far East, before loading up for the return journey.

When these merchant vessels reach the Indian Ocean, whether *via* the Suez or by some other route, they have, as a rule, already deposited part of their cargo and are no longer

fully laden. Moreover, the return cargoes from the Far East and, to some extent at least, from South Africa,[1] to the West are, normally, less bulky and often also less valuable than the outward-bound cargoes. The result is that on balance the load-index [2] of vessels entering the Indian Ocean is relatively low, whereas that of vessels leaving the Ocean is extremely high. Thus in 1925 the load-index of vessels passing from north to south through the Suez Canal was only 36 per cent., whilst that of vessels passing from south to north was 61 per cent. In 1926 the corresponding figures were 40 and 56 per cent., and in 1927, 40 and 60 per cent.[3]

The relatively large amount of tonnage passing through the Suez Canal from south to north as compared with that passing from north to south is also increased by the facts of Australian trade. In 1925 the merchandise shipped from Australia through the Suez Canal amounted to 2·2 million tons (of which 1·3 million tons were wheat and flour), as compared

[1] Until recently the return cargo from South Africa to Europe whether westwards or *via* Suez, was less bulky than the outward cargo. There has been a marked change in this respect during the last two or three years, but there appears to be still a tendency for vessels to leave for India partly in ballast (cf. p. 78, below).

[2] The "load-index" of any vessel is the relation between the actual cargo carried and the maximum cargo that could be carried. The net tonnage of a pure cargo ship is measured by the number of units of 100 cu. ft. which are supposed to be available for carrying cargo, whilst the ship-owner's "measurement ton" for freightage purposes is 40 cu. ft. (He may actually charge by measurement or by weight. For the latter purpose many different measures are used.) Professor Sargent suggests that for working purposes it may be assumed that "every ship ton of 100 cu. ft. will carry, on the average of all voyages during the year, 80 cu. ft. or two measurement tons of cargo." On this assumption a fully loaded ship will carry twice as many measurement tons of cargo as its net tonnage: *i.e.* a 2,000-ton ship will carry 4,000 measurement tons of cargo (cf. A. J. Sargent, *Seaways of the Empire*, pp. 13, 14, 15).

[3] These percentages (which are only rough approximations) are obtained by multiplying the net tonnage of shipping, in any particular case, by two, in order to obtain the maximum tonnage of merchandise that could be carried, and then calculating the percentage of this total formed by the tonnage of merchandise actually carried. Thus in 1925 the net shipping tonnage passing from north to south through the Canal was 12·3 millions, giving a theoretical capacity of 24·6 million tons of merchandise. Actually 8·8 million metric tons of merchandise passed from north to south, *i.e.* just on 36 per cent. of the estimated maximum. The relevant figures, from which the percentages quoted in the text are calculated, are as follows:

	North to South.		*South to North.*	
	Net shipping tons (millions).	Merchandise, in million metric tons.	Net shipping tons (millions).	Merchandise in million metric tons.
1925 ..	12·3	8·8 ..	14·4	17·7
1926 ..	12·0	9·8 ..	13·9	15·6
1927 ..	13·5	11·0 ..	15·4	18·4

with only 1·1 million tons traversing the Canal *en route* for Australia. This in itself does not, of course, illustrate the fact that the Indian Ocean is a collecting centre, but as a considerable amount of Australian coal is marketed in the Indian Ocean this leaves room for the produce of the Indian Ocean to be loaded in its place.

The trade statistics of the ports of the Indian Ocean also illustrate the fact that the exports of merchandise are much greater than the imports, for all the main trading areas of the Ocean. Every major port (except Madras in certain years) has a surplus, and usually a large surplus, of exports over imports of merchandise even on the basis of value.[1] If complete tonnage figures, as contrasted with values, were forthcoming the discrepancy would certainly be still greater.

The fact that all the main trading areas of the Ocean continue to send annually to the West a greater value as well as a greater weight of merchandise, even when allowance is made for their net import of specie, than they receive in return, is due to the peculiar commercial relations that exist between the industrialised West and the countries of tropical luxuriance of the Indian Ocean. The latter in the main have been opened-up and their overseas trade has been developed by Western capital, traders, administrators, and engineers. Hence payments have had, and still have, to be made to the West for the use of capital, for shipping and commercial services rendered, for commercial and financial organisation, and for administrative as well as military services and knowledge.[2] Of all these items that of shipping is, perhaps, the most important. Practically the whole of the shipping engaged in the trade of the Indian Ocean, except that engaged in purely coastal trade, is owned by the traders of countries situated outside the Ocean. In 1926 no less than 96·2 per cent. of the shipping tonnage passing through the Suez Canal was

[1] Cf. Fig. 14, pp. 58. 59.

[2] A great deal has been written and said about the alleged "drain" of wealth from India to Great Britain. As a matter of fact almost the whole of India's surplus of exports over imports of merchandise and bullion is accounted for by the "invisible imports" enumerated in the text. Sir Theodore Morison has exposed the fallacy of the arguments usually employed in Chaps. VIII and IX of his *Economic Transition in India*. The facts with regard to the balance of trade are given in the *Annual Review of the Trade of India*. It is true, however, that India's war gifts (of some £150,000,000 in 1917 and 1918) to Great Britain involved exports for which no return was received.

owned in Europe and the United States,[1] and 3·6 per cent. was owned in Japan.

In the past this relationship between the peoples of the West and of the Indian Ocean has been profitable to both parties, as it has been based on the specialisation of production and of abilities, which can be accounted for by the fact that the stage of economic development attained in the West has been very different from that attained in the East. Even if we assume that the countries of the Indian Ocean wish to attain a higher stage of economic development—using " higher " in the sense of more highly organised and more industrial—it seems reasonable to suppose that the quickest way to achieve this end will be by continuing to make use of Western capital and commercial services, for a time at least. Eventually the present state of extreme specialisation may come to an end, especially in the case of India,[2] and indeed measures have already been adopted in the latter country designed to limit dependence upon foreign capital, commercial services, and manufactures. The policy of industrialisation will assuredly be intensified in the future, as will also the tendency to utilise Indian, rather than European, capital and management. Elsewhere as, for instance, in Malaya, the East Indies, and East Africa, owing to physical and cultural reasons, the existing economic interdependence with the West may be expected to continue, and even to increase, within any period that enters into practical politics. Actually the records of the trade of the Suez Canal show that since 1913 there has been a marked increase in the surplus of merchandise passing from the Indian Ocean to the West, over merchandise passing from the West to the Indian Ocean.

2. The Trade Routes of the Indian Ocean.

The great trade routes that centre upon or traverse the Indian Ocean include the following: (*a*) The direct route *via* the Suez Canal between Europe, and to a lesser extent America, and the Persian Gulf, India, Ceylon, the Eastern Archipelago, and East Africa; (*b*) the route *via* the Suez Canal

[1] Of this 57·4 per cent. was owned in Great Britain, 11 per cent. in Holland, 8·3 per cent. in Germany, 6·7 per cent. in France, 5·2 per cent. in Italy, and 2·7 per cent. in the United States.

[2] Cf. Chap. I, p. 10.

to the Far East and Australia and back again [1]; (*c*) the route from Europe and America *via* the Cape to India and the Far East; (*d*) the return route from Australia to America *via* Suez, taken by vessels which made the outward journey direct to Australia by the Cape or the Pacific [2]; (*e*) the route between Australia and China which passes through Manila (the chief port of the Philippines) and Sandakan (British North Borneo).

One interesting problem that arises in this connection is the effect of the opening of the Panama Canal on the trade of the Suez Canal and of the Indian Ocean as a whole. Before the opening of the Panama Canal it was often prophesied that these other trade routes would be seriously hit. This, however, has proved to be a miscalculation. On the whole, trade has shifted but little. Some vessels now go (from, for instance, New York) *via* the Panama Canal to Australia, or the Far East, that previously went by the Cape, but they almost invariably still return by the Indian Ocean and Suez, in order to obtain full cargoes. In fact, the bulk of the trade of the Panama Canal can be called "coastal trade," that is, it is concerned mainly with the exchange of goods between North and South America, and between the west and east coasts of North and of South America respectively.[3]

It is impossible to obtain complete figures of the tonnage of merchandise that comprises the total trade of the Indian Ocean.[4] Nor can we calculate the proportion between the total trade of the Indian Ocean and that passing through the Suez Canal, as the Canal figures are for tonnage of merchandise only, whereas the port statistics give the values of the merchandise exported and imported, and the tonnage of the vessels entering and clearing, but not the tonnage of the merchandise exported and imported. In order to obtain a bird's-eye view

[1] Here the vessels call at ports in the Indian Ocean on both the outward and homeward journeys. It is, for instance, convenient for vessels to load with goods partly for India and partly for Australia. At the Indian ports they discharge some of their cargo and load up with Indian produce to be consumed in Australia. Similarly on the return journey they discharge Australian goods in India, and load up with Indian produce to be consumed in the West.

[2] These vessels return by the Indian Ocean as they cannot obtain full cargoes in Australia for America. This refers to both North and South America.

[3] Cf. A. J. Sargent, *Seaways of the Empire*, Chap. IV.

[4] We cannot even obtain accurate figures of the tonnage of vessels engaged in this trade, as (naturally) the port shipping statistics overlap each other.

of the size and nature of the trade of the Indian Ocean as a whole, before considering that of each country in particular, the best that we can do is to analyse the trade statistics of the Suez Canal. As this forms a very large proportion of the total trade of the Ocean, it will give us a not inadequate idea of the latter.

3. The Trade of the Suez Canal.

The following analysis of the trade of the Suez Canal will be based on a comparison of the figures for 1925 and 1913, in addition to which the figures for 1926 and 1927 will also be considered.[1] The year 1925 is chosen for the main comparison with 1913, and as representative of present-day trade, in preference to 1926, because the latter was distinctly abnormal, owing to the English coal strike on the one hand, and to bad seasons in West India and Australia on the other.[2]

In 1925 the total tonnage of merchandise passing through the Suez Canal for the first time surpassed the pre-war figures, and amounted to 26·5 million metric tons,[3] as compared with 25·8 millions in 1913. In 1926 the figures fell again to 25·4 millions, but rose to no less than 29·4 millions in 1927. Since 1919 a tendency towards a revival from the war depression has been visible, especially in the tonnage passing from the south to north, which surpassed that of 1913 as early as 1923, and amounted to 17·7 millions in 1925 as compared with 14·5 millions in 1913. It declined again to 15·6 millions in 1926, owing to the bad harvest in Western India and Australia, but rose to 18·4 millions in 1927. The total merchandise passing from north to south, on the other hand, was only 8·8 millions in 1925, compared with 11·3 millions in 1913, and although it rose (in spite of the coal strike) to 9·8 millions in 1926 and to 11·0 millions in 1927, in no year has it as yet attained the pre-war figure. On balance there was an excess of merchandise passing from south to north of 8·9 millions tons in 1925, as

[1] Cf. Fig. 13, pp. 46, 47.

[2] The available figures for 1927 are still incomplete in certain respects, which makes it impossible to use them for the main comparison.

[3] The Suez Canal figures are given in metric tons, of approximately 2,200 lbs. as are also those of most countries except Great Britain. The English long ton contains 2,240 lbs. and is in use in British colonies, including India (cf. Table 11).

compared with 3·1 millions in 1913. In 1926 and in 1927 the excess amounted to 5·8 and 7·4 millions respectively. Thus even in a year of bad harvests in India (and Australia) the surplus of exports from the Indian Ocean over imports shows a large increase in comparison with the pre-war figures.

The nature and quantities [1] of the principal goods concerned can be studied in Fig. 13, pp. 46, 47. The first obvious fact that emerges, after one has noticed the discrepancy between the volume of traffic passing from north to south and south to north, is that the merchandise passing into the Indian Ocean consists of a great variety of miscellaneous goods, most of which are manufactured, whilst the merchandise leaving the Indian Ocean consists of a comparatively small number of staple products, most of which are foodstuffs or raw materials.

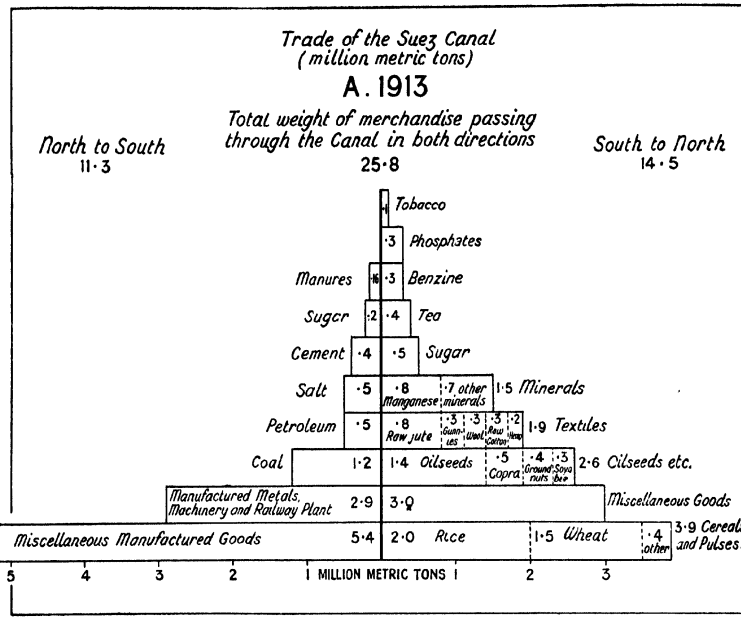
The merchandise passing from north to south in 1925 can be divided into nine main classes : *i.e.*

(i) Miscellaneous manufactures (including cloth, 0·4 million) .	3·6	million tons,
(ii) Manufactured metal goods, machinery and railway plant. .	2·5	,,
(iii) Coal.	0·7	,,
(iv) Salt	0·5	,,
(v) Manures	0·5	,,
(vi) Cement.	0·4	,,
(vii) Petroleum	0·3	,,
(viii) Wood pulp and paper . . .	0·2	,,
(ix) Sugar	0·1	,,

Thus over 69 per cent. of the total consists of miscellaneous and metal manufactures, whilst coal is the only article that has undergone practically no preparation for the market. The salt, petroleum, and sugar is all refined before export. Hence approximately 92 per cent. of the total (*i.e.* all except the coal) consists of manufactures and refined raw materials, whilst each class of manufactures consists of a very great variety of items, and not of a mass of similar articles.

Precisely the same classes of articles are included in the returns for 1913, excepting that " wood-pulp and paper " was

[1] Values are not given in the Suez Canal Returns. The returns can be obtained from the *Bulletin Décadaire de la Compagnie Universelle du Canal Maritime de Suez.*



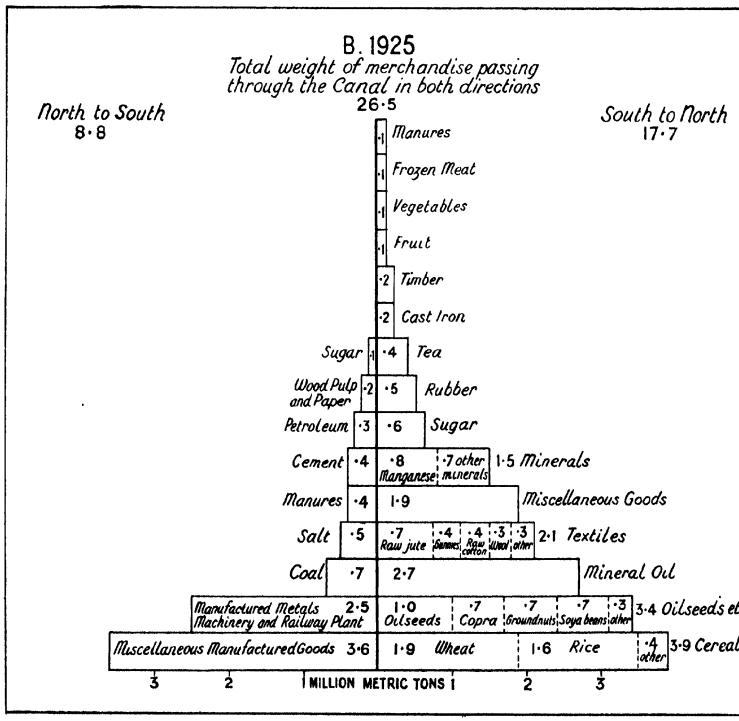
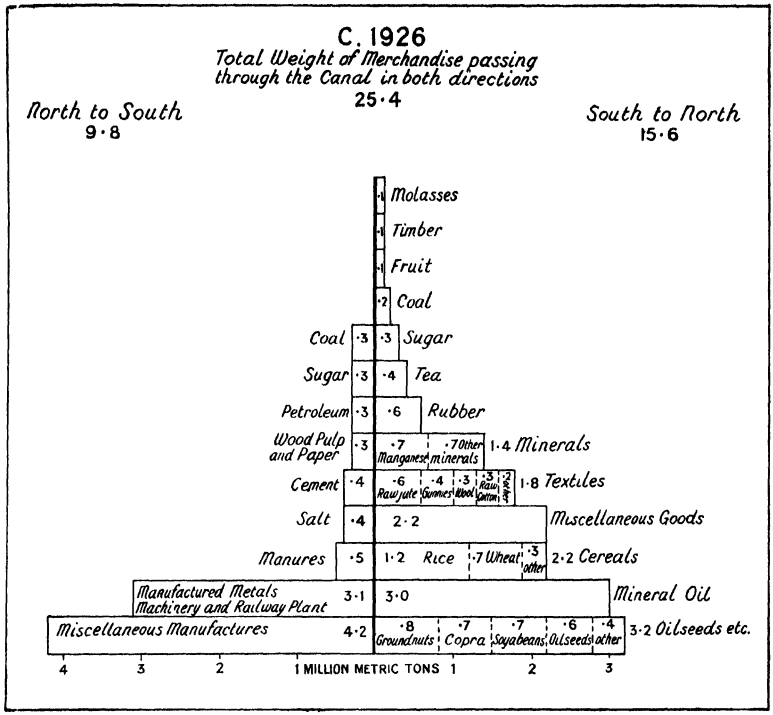


FIG. 13.—The Trade of the Suez Canal.



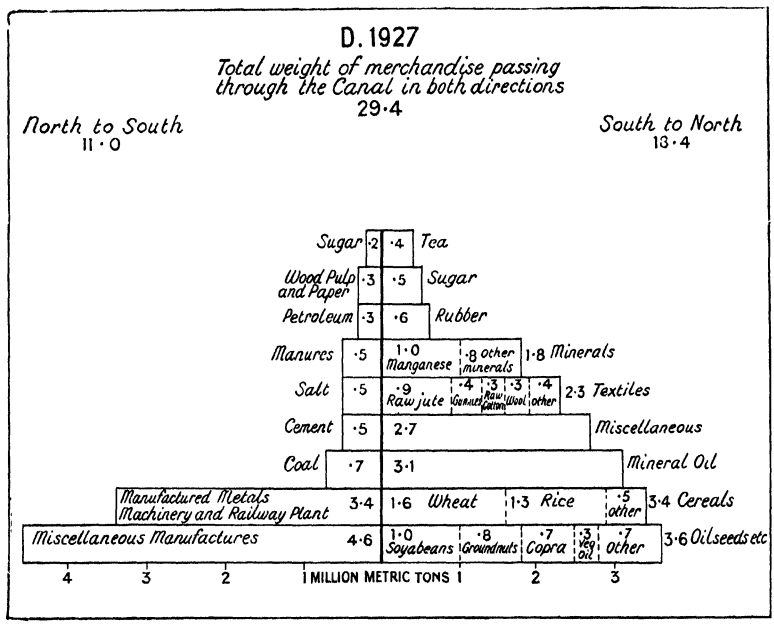


FIG. 13 (*continued*)—The Trade of the Suez Canal.

not sufficiently important to be entered separately. Miscellaneous and metal manufactures, coal, sugar, and petroleum had all declined in 1925 as compared with 1913, whilst manures had increased.[1]

The big decline in the miscellaneous manufactures going to the Indian Ocean can be attributed partly to the rise of competing industries (especially of the textiles, in India and the Far East), and partly to an actual decline in the consumption of certain articles (especially of cotton piece-goods in India) owing to the relative increase in the price of manufactures as compared with foodstuffs and raw materials. The decline in manufactured metals, etc., is not nearly so great and may well be attributed partly to temporary fluctuations, as well as to increasing rivalry (*e.g.* from the Tata Iron and Steel Company).[2] Coal has declined partly because of the increased consumption in India and Ceylon (*i.e.* Colombo) of Indian, South African, and Australian coal, and, in the Eastern Archipelago, of South African and Australian coal, and partly on account of the increased competition from electricity [3] and oil.[4] The amount of beet-sugar passing through the Canal to India fluctuates greatly, in accordance with the world-price of sugar, which depends primarily on the American (especially the Cuban) crop.[5] The increased sale of artificial manures in the Indian Ocean may be considered to be a sign of the introduction of more scientific methods of agricultural—particularly of plantation—production.

If we compare the figures for 1926 with those for 1925,

[1] Coal declined by . . . 512,000 tons.
Worked metal by . . . 397,000 ,,
Petroleum by . . . . 188,000 ,,
1,097,000 ,,

The total trade from north to south decreasd during this period by 2·5 million tons. Manures increased by 250,000 tons. Although there was a decline in the total tonnage of petroleum, the amount originating in the United States in 1925 surpassed the pre-war figures, and amounted to 284,000 tons. Most of the rest comes from Russia, but is still far below the pre-war figures (in 1925 it amounted to only 31,000 tons). This petroleum goes mainly to Bombay, which still needs supplies from the West, as the Burmese supply, although it has greatly increased, has failed to keep pace with the enormous increase in consumption in India. Kerosene oil is now the main illuminant in India (cf. Chap. VII, s. 2).

[2] Cf. Appendix B, "The Indian Iron and Steel Industry."

[3] Especially in Western India.

[4] At all bunkering ports.

[5] Cf. Chap. VI, s. 1.

we find that the decline in the amount of coal shipped to the Indian Ocean (obviously attributable to the coal strike) from 0·7 to 0·3 million tons, was more than compensated by increases in the shipments of miscellaneous and metal manufactures, sugar, manures, and wood-pulp and paper. In 1927 there was an increase in practically every item, except sugar, which declined. Coal regained the level of 1925, and record figures were registered for a number of articles, including worked metals, machinery, railway plant, cement, salt, manures, and cloth (all types), although the total has not yet quite regained the 1913 level. The general tendency to increase may be attributed to a great extent to a revival in the consuming power of the people of India.

The merchandise passing from south to north in 1925, although much greater than that passing in the other direction, can be classified much more accurately into a series of classes each containing more or less similar units of staple articles. The main classes are as follows:

(i)	Cereals	3·9 million tons.
(ii)	Oilseeds, etc.	3·4 ,,
(iii)	Mineral oil	2·7 ,,
(iv)	Textiles, raw and manufactured.	2·1 ,,
(v)	Miscellaneous goods	1·9 ,,
(vi)	Minerals	1·5 ,,
(vii)	Sugar	0·6 ,,
(viii)	Rubber.	0·5 ,,
(ix)	Tea	0·4 ,,
(x)	Minor quantities of cast-iron, timber, fruit, vegetables, frozen meat, and manures.	

Foodstuffs account for almost 49 per cent. of the whole.[1] It is difficult to estimate the percentage of raw materials as compared with manufactures, but it is clear that only a very small proportion (perhaps 5·6 per cent.) of the whole consists of highly finished articles.[2] If partially prepared goods were included the percentage would, of course, be much greater, but the figures given illustrate faithfully the great distinction

[1] This includes the cereals, oilseeds, etc., sugar, tea, fruit, vegetables and frozen meat. In practice, of course, some of these are used for other than edible purposes.

[2] This includes the gunnies, part of the "other textiles," and cast iron.

between the predominant type of goods passing south and north respectively.

If we compare these figures with those for 1913 we find that the most important changes are the addition of rubber to the articles separately classified, and the great increases in mineral oil, oilseeds, and textiles.[1] The rise of Persian oil [2] is the outstanding feature of the period. Mineral oil now accounts for no less than 15 per cent. of the total traffic from south to north, whereas in 1913 only some 0·4 million tons passed from south to north, 0·3 million being classed as "benzine," and the rest included in the class of "miscellaneous" articles. In 1925 no less than 2·7 million tons, in 1926 3·0 millions, and in 1927 3·1 millions traversed the Canal in this direction. The tonnage of rubber shipped from south to north rose from 0·06 million tons in 1913 to 0·5 million in 1925, and 0·6 million in 1926 and in 1927. Of the 0·5 million shipped in 1925 no less than 0·33 million went to the United States, and 0·16 million to Europe. The increasing importance of oilseeds and vegetable oil is also clear,[3] whilst an interesting feature of the trade in textiles is the increased export of manufactured as compared with raw jute.

If we look at the figures for 1926 we find, in comparison with 1925, a great drop in cereals (especially wheat, which fell from 1·9 to 0·7 millions), and a decline in oilseeds, textiles, and sugar (which can be attributed to the bad seasons in West India and Australia), but a continuance of the increase in both mineral oil and rubber. In 1927 the total exceeded that even of 1925, and nearly every item rose above the level of 1926. Cereals, oilseeds, textiles, and sugar all revived satisfactorily, in accordance with the better harvests.

From this analysis we can see clearly that the trade of the Suez Canal (and therefore to a great extent of the Indian

[1] It is remarkable that the total quantities of cereals, minerals, and tea, were approximately the same in 1925 as in 1913.

[2] Burmese and East Indian oil is mainly consumed in neighbouring markets.

[3] In 1925 as compared with 1913 the following changes took place:

An increase of 353,000 tons of soya beans.
,, ,, 264,000 ,, groundnuts.
,, ,, 191,000 ,, copra.

The quantity of wheat also increased (by 381,000 tons in 1925), but much of this, of course, originates beyond the Indian Ocean (*i.e.* in Australia), and Indian supplies fluctuate considerably in accordance with the monsoon.

Ocean as a whole) consists fundamentally of the exchange of the foodstuffs and raw materials of the fertile soils of India and the Eastern Archipelago,[1] and of the mineral oil of Persia, for the manufactures of the West. In particular cereals (especially rice and wheat [2]), oilseeds and their derivatives,[3] mineral oil, raw and manufactured jute, a certain quantity of other textiles, Indian manganese, sugar, rubber, and tea are exchanged for the metal goods, machinery and plant, coal, cotton cloth and miscellaneous manufactured products of the West.

It is difficult to trace with any exactitude the destination of the great variety of manufactured goods passing through the Canal from north to south. A glance at Figs. 17 and 20 (depicting the trade of the principal ports) [4] shows that all the major ports import very similar articles; *i.e.* clothing (chiefly cotton goods), manufactured metal (chiefly iron and steel) goods, machinery and plant, provisions [5] and oilman's stores, hardware, and miscellaneous manufactures. Hence only an extremely detailed analysis (which would be beyond the scope of these pages) would reveal facts of any value to the commercial world.

On the other hand, the Suez Canal returns reveal clearly the nature of the principal exports of the main trading areas of the Ocean. Over 75 per cent. of the total tonnage of goods passing from south to north in 1925 can be accounted for as follows:

(i) 22 per cent. of the total passing through the Canal consists of cereals, of which—

33 per cent. is wheat from Australia,
13 ,, ,, ,, British India,
28 ,, is rice from British India (mainly from Burma),
7·5 ,, ,, ,, Indo-China,
2·6 ,, ,, ,, Siam.

The remainder consists of other cereals such as barley, the millets, etc.

[1] And of Australia.

[2] In 1925 out of the total of 1·9 million tons of wheat, 1·3 millions came from Australia and 0·6 million from the Indian Ocean.

[3] Note that the soya beans (0·7 million) came from the Far East. The first ship-load of soya beans traversed the Suez Canal in 1908.

[4] Cf. pp. 80, 108. Note that these figures are given in values, and hence the relative importance of the various articles is different from that shown by the tonnage figures of the Canal.

[5] *I.e.* mainly tinned goods.

(ii) 15·2 per cent. of the total consists of oilseeds, groundnuts, etc., and vegetable oil. Of these almost a quarter are soya beans from China. The great bulk of the rest comes from British India, although both Ceylon and Malaya export copra and coconut oil.[1]

(iii) 15 per cent. of the total consists of mineral oil, of which about 85 per cent. comes from Persia.[2]

(iv) 6·2 per cent. of the total consists of raw and manufactured jute from Calcutta.

(v) 5·6 per cent. of the total consists of other textiles, including wool from Australia, the rest being mainly cotton from India, especially from Bombay and Karachi.

(vi) 4·5 consists of manganese from India.

(vii) 3·3 consists of sugar, mainly from Java.

(viii) 2 per cent. consists of rubber, the bulk of which is shipped [3] from the Straits Settlements.

(ix) 1·7 per cent. consists of tea, mainly from British India and Ceylon.[4]

A rough picture of the relative importance of the principal areas beyond Suez using the Suez Canal can be obtained from an analysis of the direction of the net shipping tonnage. The total of 26·7 million net shipping tonnage passing through the Canal in both directions in 1925, was distributed as follows:

Trading with West India . . .	3·6 millions		
,, ,, East India . . .	5·4 ,,		
Total for India —— . .		9·0 millions	
,, ,, China and Japan		5·7	,,
,, ,, Malaya, the East Indies, Indo-China, Siam, etc.		3·4	,,
,, ,, Australia, etc.		3·3	,,
,, ,, the Persian Gulf		3·0	,,
,, ,, East Africa and Mauritius .		1·3	,,
Grand Total accounted for .		25·7	,,

India, Malaya, the East Indies, and the Persian Gulf

[1] So do the Dutch East Indies, to a minor extent (cf. Chap. IV, p. 112).

[2] Smaller quantities are shipped from the East Indies, Burma, and Suez itself.

[3] Its origin is discussed more fully below, Chap. VI, p. 112.

[4] Java also is now sending increasing quantities of tea (cf. Chap. VI, s. 3).

accounted for no less than 15·4 millions (almost 60 per cent.), whilst the Far East accounted for only 5·7 millions (*i.e.* 22 per cent.).

We have already seen that the total trade in merchandise (in both directions) of the Suez Canal rose from 25·8 to 26·6 million metric tons between 1913 and 1925. The recorded increase was 802,000 tons.[1] It is noteworthy that no less than 634,000 tons (79 per cent.) of the increase can be attributed to the increased trade with the United States. Indeed, the United States has become one of the greatest consumers of the plantation products (*e.g.* of the rubber) and of some of the raw materials (such as hides and skins) of Malaya, the East Indies, and of India.[2] The remaining increase of 168,000 tons in the total trade of the Suez Canal was accounted for by the fact that the decline of 2,234,000 tons in the merchandise passing from Europe to the Indian Ocean was more than offset by an increase of 2,402,000 tons passing from the Ocean to Europe. The decline in the traffic from north to south is accounted for mainly by the falling off in British goods going to India and the East Indies, whilst the increase is due to the ever-increasing demand of Europe (other than Great Britain) for the specialities of the East.[3]

4. The Trade of the Other Main Trade Routes of the Indian Ocean.

The above analysis of the trade of the Suez Canal includes a description of the nature and quantities of the principal articles that enter into the trade of the direct route between the West and the Indian Ocean *via* Suez, of the route *via* Suez to the Far East and Australia, and back again, and of the return route from Australia *via* the Suez to America. A few words must be added with regard to the trade between India and the Far East and Australia, and about the trade

[1] The figures in the Diagrams are, of course, approximations.

[2] Cf. Figs. 16 (p. 73), 19 (p. 105), and 21 (p. 114).

[3] Figs. 16, 18, 19 and 21 show that Great Britain's share of the total trade of all of the main trading areas of the Ocean declined, except in the case of Persia and the Dutch East Indies. As in most cases there had been little or no increase in the absolute volume of trade (a statement that is supported by the trade statistics of the Suez Canal), this represents an absolute decrease in the volume of British trade with the Indian Ocean as a whole.

round the Cape of Good Hope.[1] In addition the nature of the trade of some of the shorter routes between different areas within the Ocean may be briefly indicated.[2]

The trade between India, on the one hand, and the Eastern Archipelago and the Far East (mainly Japan)[3] on the other hand, consists to a great extent of the exchange of Indian rice (in great demand amongst the emigrant Indians of Malaya and the East Indies), cheap cotton mill piece-goods (also in great demand in Malaya and the East Indies), and raw cotton (the bulk of which goes to Japan), in return for Javanese sugar and Japanese "cheap and meretricious" manufactures, of every sort and description.

The trade of Malaya and the Eastern Archipelago as a whole consists of the export of plantation products, minerals (mainly tin and petroleum) and spices, in return for clothing (from both India and Europe), foodstuffs (fresh from India, tinned from Europe), and machinery, plant, and hardware.

India's trade with Australia is still very limited in extent, and is increasing but slowly, so that the bulk of the cargoes on ships trading with Australia originate in, or are destined for, areas west of Suez. India's trade with East Africa, Persia and Iraq, on the other hand, tends to increase steadily, and in particular India supplies these countries with ever-growing quantities of coloured cotton piece-goods. As will presently be seen, the most important feature of the trade between India and East Africa is the growing export of raw cotton from Uganda, *via* Mombasa, to Bombay.[4]

The trade *via* the Cape to India has expanded considerably since pre-war days, owing mainly to the increased export of South African coal. The balance of South African trade has been completely reversed during the last two or three years.

[1] In s. 2 we also mentioned the trade-route between Australia and China passing through Manila and Sandakan. This is, however, of quite minor importance and needs no detailed analysis. It is only necessary to note that Manila and Sandakan are ports of call on this route, and that Manila in particular is a favourite bunkering station.

[2] The brief review given in this section may be considered as a summary of the more detailed analysis of Chaps. III and IV, and is given with the object of presenting an outline that can be filled in subsequently. If this is not done, it is difficult to see the wood for the trees.

[3] India's trade with China has declined progressively of recent years and is now only of minor importance. India's former extensive exports of cotton yarn and piece-goods to China have been cut out by the growing textile industries of Japan and of China itself (cf. Chap. III, s. 4).

[4] Cf. Chap. III, p. 89.

South Africa's imports (which came largely from the United Kingdom) used to be much bulkier than her exports, which consisted largely of wool, gold, and diamonds.[1] From the Indian point of view the result was that European vessels, after unloading coal at Madeira, the Canaries, and the Cape Verde Islands, *en route* for the Cape, and bulky cargoes actually at the Cape, could not obtain adequate return cargoes, and consequently steamed in ballast, or taking coal at ballast rates, to India, in order to pick up produce for the return journey.

Recently, however, owing mainly to the increased export of coal[2] and of maize[3] from South Africa, the balance of trade has changed, and South African exports tend to be bulkier than her imports. Thus in 1923 the total volume of South African exports had regained the pre-war figure, whilst the total volume of imports was still 15 per cent. below the pre-war figure.[4] As far as the trade with India is concerned, this means that fewer ships leave the Cape for India in ballast, and more are laden with coal. South Africa's trade with India has indeed, since 1913, increased more than that with any other country. Nevertheless, owing to the change in the balance of trade, ballast freights for coal are no longer so easily obtained, and there is reason to suppose that this will to some extent check India's imports of South African coal in the future.[5] At present, however, if we ignore three-cornered trade and consider only the direct trade between India and South Africa, we find that, on the basis of value, India's exports to South Africa still greatly exceed her imports from that country.[6]

In addition to the lines of trade already described, there is, of course, a large coastal trade, mainly carried on in small, wooden, native craft, between the various ports of each country in the Indian Ocean. This, however, can best be described in

[1] Cf. A. J. Sargent, *Seaways of the Empire*, Chap. I, p. 16. "We import from South Africa some copper ore, wool, feathers, maize, fruit, tanning materials, hides, and minor pastoral products . . . the chief purchasing power of South Africa lies in gold, and gold does not freight ships."

[2] The export of South African coal (cargo and bunker) rose from 2·2 million tons in 1913 to 3·7 millions in 1923.

[3] The export of maize from South Africa rose from 22·9 million lbs. to 1,128·3 millions in 1923.

[4] Cf. *South African Year Book*. Later figures are not given.

[5] Cf. Chap. VII, p. 200.

[6] Cf. Chap. III, p. 78.

connection with the more detailed analysis of the trade of each of the main areas of the ocean.[1]

5. The Relative Commercial Importance of the Principal Trading Areas of the Ocean.

In order to complete this review of the trade of the Indian Ocean, as a whole, it is necessary to consider briefly the relative importance of the total trade of the various areas, so that we may place the trade of each in its right perspective in relation to that of the other areas and of the ocean as a whole. This is the more necessary as different currencies (as well as weights and measures) prevail in the different areas, and whilst it is convenient to express values in the currency of each area whose trade we are analysing, this method prevents any direct comparison of the trade statistics of the various areas.

In order to make a rough comparison possible the trade figures in Table I have all been converted into sterling,[2] and in Fig. 14 the exports and imports of the principal ports have all been represented to scale.

The rupee is the standard of value in Aden, Iraq, India, Ceylon, and Mauritius.[3] The exchange value of the rupee in the smaller areas depends upon that prevalent in India. Before 1914, and for some years after the outbreak of the War, the sterling value of the rupee was approximately 1*s.* 4*d.* After 1917 the exchange value of the rupee began to rise, but 1*s.* 4*d.* was retained for statistical purposes. In 1920–21 an unsuccessful attempt was made to stabilise the rupee at 2*s.*, which rate was also retained for statistical purposes in 1921–22. Actually the market rate fluctuated, falling heavily, to about 1*s.* 3*d.* or 1*s.* 4*d.*, in 1921–22. For statistical purposes a return was made to 1*s.* 4*d.* in 1923–24. After 1922–23 the market value of the rupee slowly rose again until it reached

[1] Cf. Chaps. III and IV.

[2] Such a conversion can never be quite accurate, but even a rough approximation suffices to elicit the main facts. In Table I the trade figures have, wherever possible, been taken from one and the same source—*i.e.* the *Statistical Abstract of the British Overseas Dominions*, which gives all values in sterling—in order to reduce the errors due to conversion to a minimum. It is for this reason that the figures are given for 1923–24 instead of for a later date, as this is the most recent year included in the *Statistical Abstract.*

[3] Cf. Table II A.

1*s.* 6*d.* in 1925, at about which figure it has remained ever since. 1*s.* 6*d.* has been the rate adopted for statistical purposes since 1925, and in 1927 legislation was passed stabilising exchange at 1*s.* 6*d.*

Up till 1921 the rupee was also the standard of value in British East Africa. It is still the prevailing currency, and trade figures are still often expressed in rupees, but since 1921 the shilling has been adopted as the standard of value.[1]

In British Malaya the "Straits dollar" has been the standard of value since 1903, with a fixed exchange rate of 2*s.* 4*d.* sterling. In the Netherlands East Indies the currency consists of gulden (alternatively known as florins, or guilder) and cents. The parity value of the gulden is 1*s.* 8*d.* (or 12 107 to the pound sterling), but exchange has not been stabilised. In Persia the standard is the kran. Its gold exchange value is not fixed, and a convenient approximation to the average exchange value is utilised for statistical purposes. For 1923–24 the official rate adopted for conversion was 45 krans per pound sterling.[2]

From the figures given in Table I it can be seen that, judging by the value of the total trade in merchandise, India stands head and shoulders in commercial importance above the rest, and accounts for no less than 43 per cent. of the total trade of all the areas included in our survey. Next comes British Malaya, with 23·3 per cent. of the total trade, and then the Dutch East Indies with 19·8 per cent. We have already noted that these three areas together account for 86 per cent. of the total.[3] Ceylon takes fourth place with 4·5 per cent. of the total, then comes Persia with 3·4 per cent., next British East Africa with 2·2 per cent., then Mauritius, Aden, Iraq, and British Borneo, each with approximately 1 per cent. In dealing separately with these minor commercial areas it is important never to forget their relative insignificance in comparison with the three main areas.

If, however, we wish to consider future commercial potentialities, or the stage of commercial development already attained, we must consider not only the figures of total trade, but also those figures in relation to the population and to the

[1] Cf. *Statistical Abstract for the Overseas Dominions*, 1923–24, p. 6.
[2] Cf. Table II A.
[3] Cf. Chap. I, p. 2.

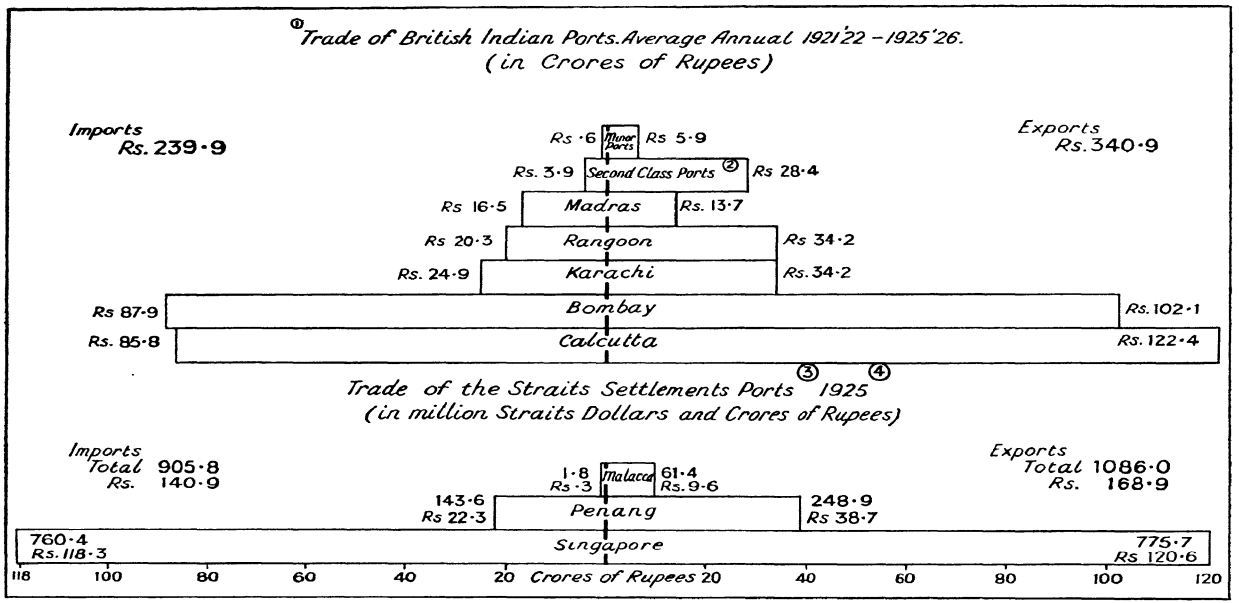


FIG. 14.—The Trade of the Principal Ports of the Indian Ocean. (To scale.)

1. Excluding coastal trade, Government stores, and trade in coin and bullion. Including re-exports.
2. Chittagong, Tuticorin, Bassein, Cochin, Dhanuskhodi, Calicut, Cocanada, Cuddalore, Moulmein, and Vizagapatam.
3. Excluding trade with the rest of British Malaya and goods that are merely transhipped, but including re-exports.
4. The overseas and land frontier trades of the Straits Settlements are not classified separately in the returns, so that each item of overseas trade has to be picked out individually. For this reason the figures are given for one year only.

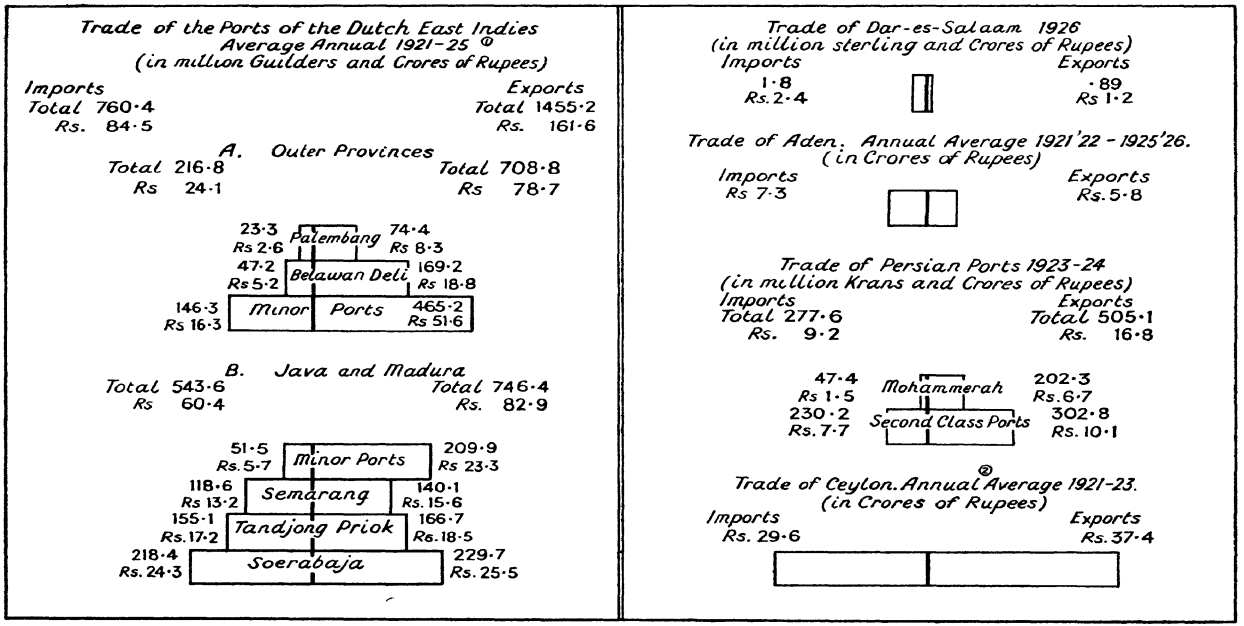


FIG. 14 (*continued*).—The Trade of the Principal Ports of the Indian Ocean. (To scale.)

1. Figures are not available for the Outer Provinces for 1921 and 1922, so that those given are the average for the years 1923-25. This somewhat underestimates the trade of these ports. For conversion purposes the rupee has been valued at 1*s.* 6*d.*, so that the rupee equivalents are only rough approximations.

2. Separate figures are not available for the ports of Ceylon, but Colombo has the bulk of the trade. These figures are taken from the League of Nations' "Memorandum on the Balance of Payments and Foreign Trade Balances, 1911-25," vol. ii.

undeveloped economic resources of each area. We have already called attention to the immense economic potentialities of parts of British Malaya, British Borneo, the Dutch East Indies, and British East Africa, and a glance at the figures of the area and population of all these areas fully confirms this opinion, which will be further strengthened when we analyse in more detail the causes of their relative economic backwardness. Much the same may be said about Persia and, to a lesser extent, Iraq.

Still more light is thrown on the potentialities of commercial development if we examine the figures of trade per head. Here the startling fact is revealed that although India stands alone from the point of view of present-day commercial importance, her trade per head is actually less than that of any of the other areas, even of those whose economic development has only just begun. In some ways, no doubt, the comparison is not a fair one, as it ignores the enormous internal and coasting trade of the country, but all the same it is surprising to realise that the trade per head of India is only £1·3, as compared with £9·3 for Ceylon, £3·7 for the Dutch East Indies, £2·9 for Iraq, and £1·8 for British East Africa. The enormously high figure of £79 per head for British Malaya may, perhaps, be left out of account, as it is swollen by the inclusion of Singapore, with its extraordinary entrepôt trade, but in any case one is driven to inquire whether, after all, the potentialities of commercial expansion are not still greater in India than in any of the other areas, as an almost minute increase in the average production or consumption of the masses might cause an enormous expansion of foreign trade. A slight improvement in the standard of life of the Indian ryot might suffice to give a world-wide stimulus to commerce.

Figure 14 [1] shows diagrammatically the relative value of the trade of the principal ports of the Ocean, illustrating vividly the concentration of trade in a few large centres.

[1] Cf. pp. 58, 59.

CHAPTER III

THE TRADE OF INDIA AND CEYLON

1. The Size, Value and Principal Objects of Indian Trade.

Having taken a bird's-eye view of the nature and size of the trade of the Indian Ocean as a whole, we must now proceed to consider in more detail the trade of each of the more important commercial areas of the Ocean, beginning with the most important, *i.e.* India.[1]

The latest available figures relating to the trade of India are for 1926–27,[2] but in many ways those for 1925–26 represent the present-day position better. Indian trade during 1926–27 was not only upset by the coal strike in Great Britain, but was also severely affected, in an adverse manner, by a fall in cotton and jute prices and by an exceptionally bad wheat and cotton harvest in India.[3] Hence an analysis of the trade of India in 1926–27, and a comparison of the figures for that year with pre-war figures, would give a false impression

[1] We have already noted that practically the whole of the foreign overseas trade of India passes through ports in British India, so that the trade of "India" and of "British India" are synonymous, and that in 1923–24 the trade of India, on the basis of value, accounted for no less than 43 per cent. of that of the Ocean as a whole (cf. Table I). This excludes the trade of ports such as Goa and Pondicherry, which belong to foreign countries. This latter trade is very small in comparison with that of British Indian ports (cf. Appendix A).

[2] Cf. *Annual Review of the Trade of India*, 1926–27.

[3] The poor wheat and cotton harvests in India affected Indian cultivators the more severely because the other principal producing countries of the world had good harvests.

of post-war commercial tendencies. In the following pages, therefore, the figures for both 1925–26 and for 1926–27 will be quoted, but those for the former year will be treated as of primary value as a criterion of the commercial position.

The value of India's total imports and exports of merchandise has increased substantially since pre-war days : *i.e.* imports from Rs.183 crores in 1913–14, to Rs.226 crores in 1925–26, and Rs.231 crores in 1926–27, and exports from Rs.244 crores to Rs.374 crores and Rs. 301 crores in the same years.[1] This apparent increase in trade, however, is accounted for mainly by an increase in the level of prices. An estimate of the value of imports and exports on the basis of pre-war prices gives a very different picture. The value of total imports, when allowance is made for the rise in prices, has actually declined since 1913–14, *i.e.* from Rs.183 crores to Rs.143 crores in 1925–26 (and Rs.156 crores in 1926–27), whilst the value of total exports (on the same basis) had in 1925–26 slightly increased (rising from Rs.244 crores in 1913–14 to Rs.246 crores in 1925–26) but again declined below the pre-war level (to Rs.228 crores) in 1926–27.[2] Until 1925–26 the general trend of development was for exports to revive steadily, but for imports to remain at a low level.[3] Just recently, however, the export trade has declined, owing partly to the bad harvests of 1925–26 and 1926–27, and partly to a world-wide fall in the price of some of India's staple products, indicative of a fall in demand in relation to the world supply. On the other hand, the import trade now shows a distinct tendency towards revival, mainly on account of the fall in the price of cotton and other manufactures, which has stimulated purchases from abroad.

India's imports consist in the main of manufactured articles of great variety.[4] Sixty-one per cent. of the total can be divided into the following seven classes : [5]

[1] Cf. Table III and Fig. 15 (p. 63). These figures are for merchandise only, on private account.

[2] Cf. Fig. 15 (p. 63).

[3] Apart, that is, from the unhealthy boom of 1920–21.

[4] Before the War 76·6 per cent. of the imports were manufactured goods. In 1925–26, the percentage had fallen to 74·3, and in 1926–27 to 72·8 (cf. *Annual Review of the Trade of India*, 1926–27, p. 3).

[5] These figures are for 1925–26. The figures in brackets are for 1926–27 (cf. Table III). Note that in the text the items are quoted in the order of their importance in 1925–26, whereas in Table III, they are placed in order of their importance in 1926–27.

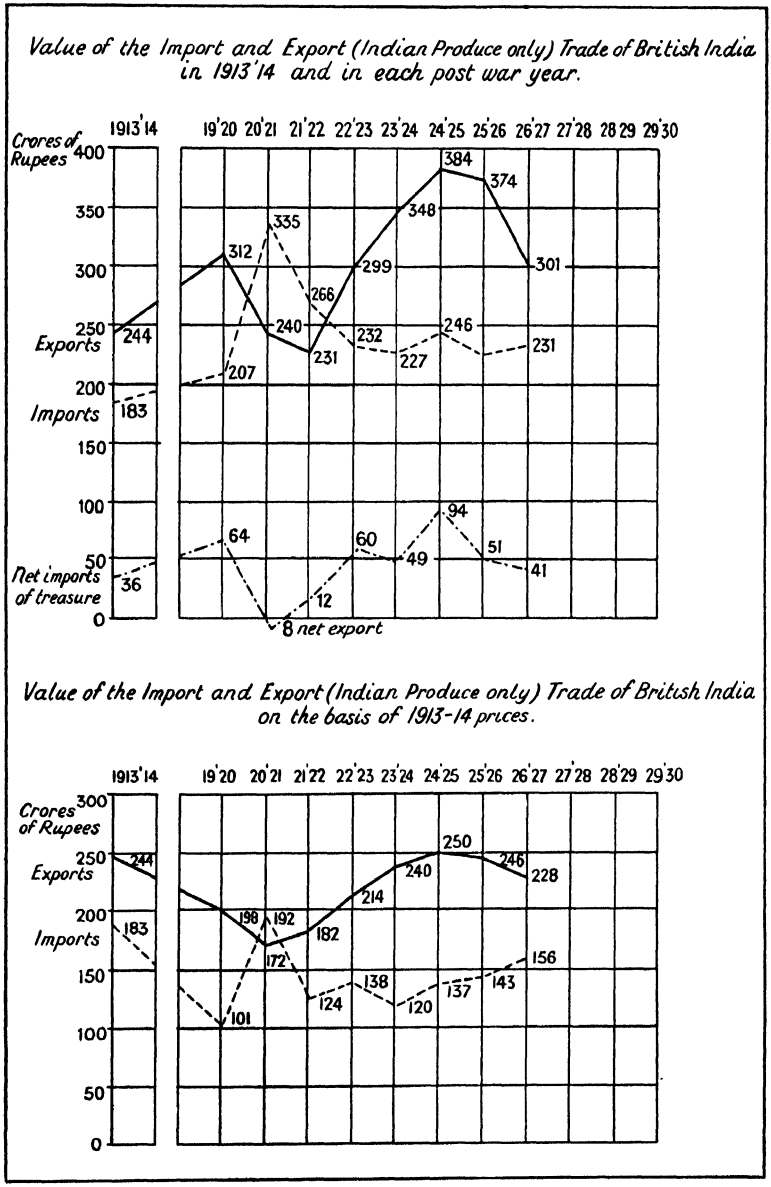


FIG. 15.—Import and Export Trade of British India since 1913–14.
(Private merchandise only.)

(i) Cotton and cotton goods	Rs.69·3 crores	(Rs.70·0 crores)
(ii) Iron and steel goods . .	Rs.18·1 ,,	(Rs.16·7 ,,)
(iii) Sugar	Rs.15·8 ,,	(Rs.19·1 ,,)
(iv) Machinery and millwork .	Rs.14·9 ,,	(Rs.13·6 ,,)
(v) Mineral oil	Rs.10·7 ,,	(Rs. 9·1 ,,)
(vi) Hardware	Rs. 5·2 ,,	(Rs. 5·0 ,,)
(vii) Railway plant and rolling stock	Rs. 4·9 ,,	(Rs. 3·2 ,,)

In 1926–27 the last item fell to an exceptionally low figure, and was surpassed in value by "mechanically propelled vehicles," "silk and silk goods," "chemicals and drugs," and "provisions and oilman's stores." There is, however, no reason to expect that India's demand for railway plant and rolling stock will remain at this exceptionally low figure.[1] On the other hand, the rise of "mechanically propelled vehicles" to a position of first-rate importance is likely to be maintained, owing to the increasing use of motor-cars in India.[2] The bulk of the remaining imports consist of miscellaneous manufactured goods, together with some coal and salt.

Cotton and cotton goods (the bulk of which are piece-goods) retain the premier position that they have held so long amongst imports. This line of trade is so important, that it will be analysed separately, in some detail, below.[3]

In spite of the establishment of the "Tata Iron and Steel Works" at Jamshedpur (Bihar), and of a number of other works producing iron, structural steel, machinery, etc., India cannot yet supply anything like her own requirements of iron and steel goods,[4] machinery, millwork, railway plant, and rolling-stock. For such goods she is still dependent on Western countries, particularly the United Kingdom.[5]

[1] In the pre-war quinquennium the average value of railway plant and rolling stock imported was Rs.6·1 crores.

[2] At the beginning of the century imports of motors, motor-cycles, etc. were negligible. In the pre-war quinquennium they had an average annual value of only Rs.1·79 crores. In 1926–27 34 per cent. of the motor-cars imported came from Canada, 30 per cent. from the United States, 19 per cent. from the United Kingdom, and 11 per cent. from Italy.

[3] S. 4.

[4] Cf. Appendix B, "The Indian Iron and Steel Industry."

[5] The United Kingdom still heads the list of countries supplying pig-iron

Although sugar is sown over about 2½ million acres in India, the output does not satisfy Indian needs, so that large quantities of cane and smaller quantities of beet sugar are regularly imported. The cane sugar comes mainly from Java, but as a rule some is also supplied by Mauritius. In 1925–26 some 733,000 tons of sugar (cane and beet) were imported, which happened to be almost precisely the same as the pre-war quinquennial average.[1] In 1926–27 imports rose to 826,000, of which 611,700 were cane sugar from Java, 49,200 beet sugar from Germany and other Continental countries, and 15,500 cane sugar from the United States. The imports from Mauritius fell to only 100 tons in that year, as the grant of Imperial preference on sugar has diverted that crop to the United Kingdom.

India's imports of mineral oil also supplement indigenous (*i.e.* Burmese) supplies.[2] In 1925–26 no less than 200,000,000 gallons, and in 1926–27 183,000,000 were imported, as compared with only 80,000,000 in 1900–01. The great increase has been in the import of fuel oil, and (to a lesser extent) of lubricating oil. The United States supplied no less than 87 per cent. of the 64,050,000 gallons of kerosene, and Persia 74 per cent. of the 90,582,000 gallons of fuel oil imported in 1926–27.

The trade in hardware is also important and increasing. The additional supply is mainly obtained from Germany (and to a less extent from the United States), so that whereas in 1913–14 the United Kingdom supplied 57 per cent., and Germany 18 per cent. of the total, in 1926–27 the United

and iron and steel goods to India, although she now supplies a smaller proportion of the whole than she did before the War, as is shown by the following figures :

Source of supply of India's imported pig-iron and iron and steel goods.

	1913–14.	1925—26.	1926–27.
United Kingdom .	59·8 per cent.	55·3 per cent.	48·1 per cent.
Germany . . .	19·6 "	7·8 "	9·3 "
Belgium . . .	17·0 "	25·9 "	30·4 "
	96·4 "	89·0 "	87·8 "

(Cf. *Annual Review of the Trade of India* 1926–27, p. 30). India's imports of pig-iron are now almost negligible, amounting in 1926–27 to only 1,627 tons, as compared with the production in India of 957,000 tons.

[1] The great increase in sugar imports came at the beginning of the 20th century. In 1900–01 only 263,000 tons were imported.

[2] Cf. Chap. VII. s. 2.

Kingdom supplied only 36 per cent., and Germany, 31 per cent.

In addition to imports on private account, India has a considerable net import on Government account. This amounted in all to Rs.8,33 lakhs in 1925–26 (Rs.8,00 lakhs in 1926–27), as compared with an average of Rs.5,71 lakhs before the war.

We have already seen that normally India has a large net import of bullion and specie.[1] During the War, supplies were severely restricted, so that since the conclusion of the War India's demand has been particularly great. Net imports of bullion and specie rose to a record figure of Rs.94 crores, in 1924–25, since when the leeway seems to have been made up, and imports have fallen to a more normal figure; *i.e.* Rs.51 crores in 1925–26 and Rs.39 crores in 1926–27 (as compared with Rs.36 crores in 1913–14). One explanation that has been offered of the abnormally heavy imports of specie between 1922–23 and 1924–25 is that the price of cotton-goods at this time was so high that consumers were temporarily prevented from purchasing anything like normal quantities. Instead they bought specie, in the hope that the price of cotton goods would eventually fall. In any case it is clear that the decline in imports of bullion and specie has corresponded with an increase in imports of cotton goods.

India's total "visible" imports in 1925–26, including merchandise on private account, net import of Government stores, and net import of specie, thus amounted in all to some Rs.2,86 crores. Deducting this from India's exports (Rs.3,74 crores), we find that India had a surplus of exports of Rs.88 crores, for which no "visible" return was received, but which is accounted for by India's political and commercial relations with the West, particularly with the United Kingdom, as already explained.[2]

India's principal exports fall into more easily defined classes than her imports. No less than 85 per cent. of the total are included in the following six classes: [3]

[1] Cf. Fig. 15, p. 63.
[2] Cf. Chap. II, p. 41, above.
[3] These figures are for 1925–26. The figures in brackets are for 1926–27 cf. Table III).

(i) Raw cotton and cotton goods	Rs.104·6 crores		(Rs.69·3 crores)		
(ii) Jute, raw and manufactured	Rs.96·8	,,	(Rs.79·9	,,	)
(iii) Grain, pulse and flour	Rs.48·0	,,	(Rs.39·2	,,	)
(iv) Oilseeds	Rs.29·6	,,	(Rs.19·0	,,	)
(v) Tea	Rs.27·1	,,	(Rs.29·0	,,	)
(vi) Hides and skins, raw and manufactured .	Rs.14·3	,,	(Rs.14·6	,,	)

In addition considerable quantities of lac,[1] raw and manufactured wool, ores (especially manganese), metals and manufactured metal goods,[2] and mineral and vegetable oil are exported.[3]

Foodstuffs and raw materials still preponderate amongst Indian exports, but there has recently been a marked tendency towards a relative, as well as an absolute, increase in the export of manufactured articles. In 1926–27, 28·3 per cent. of the exports were manufactures, as compared with 23·1 per cent. in 1913–14. The most important manufactured goods exported are jute gunnies and hessians, cotton piece-goods, tanned hides and skins, vegetable oil and paraffin wax.

The marked increase in large-scale industries, and in the number of persons employed therein is often overlooked by Indian publicists, who declaim about the "ruralisation" of India as if the changes in that direction that did take place during the nineteenth century had continued unabated up till the present day. It is true that during the nineteenth century many indigenous Indian industries declined or even (in a few cases, such as the hand-spinning of cotton) practically

[1] Lac is obtained in the forests from the resinous exudations of certain insects. It is mainly exported in the form of shellac, and is utilised as a varnish, in the manufacture of shells, gramophone goods, and for insulation in the electrical industry (cf. C. W. E. Cotton, *Handbook of Commercial Information for India*, p. 248 *et seq.*). In 1925–26, 540,000 cwts. were exported.

[2] Considerable quantities of pig-iron are now exported (cf. Appendix B).

[3] Opium used to be one of India's most valuable exports, but the trade has declined rapidly since an agreement was made in 1907 between the Indian and Chinese Governments designed to bring to an end the former large export to China. Since April 1926, public sales of opium in India have been discontinued, and export is only permissible with an import certificate from the Government of the importing countries which have ratified the International Opium Convention of 1912. Eventually all export except for medicinal purposes is to cease. (Cf. *Annual Review of the Trade of India*, 1926–27, p. 97).

ceased, whilst the predominant nature of Indian exports changed from manufactures and specialities (at the beginning of the century) to foodstuffs and raw materials (near the end of the century). Since the middle of the nineteenth century, however, new industries—in particular the Cotton and Jute Mill Industries—have been established, and have since enormously extended their output and export, so that since 1900 there has been a striking change over in the whole economic trend. Not only have large-scale industries rapidly increased, but there has been a revolution in the economic policy of the Government, which now accepts the principle that assistance and protection should be given to both existing and potential large-scale Indian industries.[1]

Cotton, raw and manufactured, has, since the beginning of the twentieth century, usually headed the list of India's exports, as it does of her imports, but whereas the imports are mainly manufactures, the exports are chiefly of raw cotton.[2] Jute (raw and manufactured) now competes with cotton for the first place amongst exports, and in one or two years (particularly during the war) has actually surpassed it in value.[3]

The quantity of raw cotton exported has increased more than 50 per cent. since before the war, 745,000 tons being exported in 1925–26 as compared with a pre-war (quinquennial) average of 430,000. Exports of piece-goods have also increased since before the war, but of yarn have declined. In 1926–27 there was a slump in the export of raw cotton, which fell to 569,000 tons, as the Indian crop was much below normal, whilst that of America was exceptionally large, so that a poor Indian crop coincided with low prices.[4]

The production of jute is concentrated in Bengal which, in consequence of its peculiarly favourable climate and soil, has almost a world monopoly of the crop. Jute is the cheapest known fibre that can be used for bagging and baling agricultural produce,[5] and is in great and increasing demand all

[1] Cf. s 5, below.

[2] In 1925–26, raw cotton accounted for over 90 per cent. by value of the total exports of "Cotton and cotton goods."

[3] Jute headed the list in 1926–27.

[4] For a more detailed analysis of the trade in cotton and cotton-goods, cf. s. 4, below.

[5] The chief articles made from jute are gunny bags (for rice, wheat and oil-seeds etc.), cloth called "hessians" (used for baling cotton, etc.), coarse

the world over.[1] Hence the cultivators and manufacturers have been in the happy position—apart from short period fluctuations due mainly to great seasonal discrepancies in both the area sown, and the demand from particular countries [2]—of obtaining increasing prices for an increasing output.[3] The actual manufacture of jute in Bengal, on a large-scale, did not begin until the second half of the nineteenth century,[4] and has greatly expanded since the beginning of this century and even since pre-war days, as is shown in the following table :

	Number of Jute Mills.	Spindles.	Looms.	Persons employed.	Paid-up capital.
1900–01 . .	36	317,348	15,340	111,272	Rs.4,09 lakhs[5]
1913–14 . .	64	744,289	36,050	216,288	Rs.7,65 ,,
1925–26 . .	90	1,063,700	50,505	331,326	Rs.17,40 ,,

The jute mill industry is almost entirely under European management, and is on the whole excellently organised.[6] As in most other large-scale Indian industries, management is not conducted directly by the jute companies, but is handed over to well-known firms which agree to become " managing agents " for the mills.[7] Although the management is in European hands, more than half the capital in the industry is now owned by Indians.

carpets and rugs, sandbags and cordage. During the War jute was also used for making tents, tarpaulins, wagon-covers, ground sheets, water-buckets, etc.

[1] The export of raw jute first rose to considerable proportions during the Crimean War, when it was substituted for flax formerly obtained from Russia. At first it was manufactured mainly in Dundee, but the Dundee jute industry has now been greatly surpassed by that of Calcutta.

[2] The profits made by Bengal Jute Mills have been extremely high. Cf. " Capital," where quotations over a period of years are reported.

[3] For instance, the area sown with jute in 1922 was 1·8 m. acres, but (with high prices) rose to 2·8 m. acres in 1923. A fall in prices naturally followed. Again, whereas in 1922–23, Chile only imported 6½ million jute bags, in 1923–24 it imported 44 millions.

[4] The first jute spinning-machine was set up in Bengal in 1855, and the first power loom in 1859.

[5] So far as is known. The records at this time were incomplete.

[6] In nearly all the mills both spinning and weaving are carried on. The machinery used is good and up-to-date. The weakest point is the recruitment and treatment of the labour force, which is unfortunately left to a great extent to native agents called " Sardars." These men recruit new employees from a considerable distance (the Bengali is too prosperous to accept employment in a jute mill), and often obtain a strong financial hold over them. Housing and social conditions are very bad amongst the employees of the jute mills. The European managers are dependent for labour upon the Sardars and have little direct control over the mill-hands.

[7] This system and its advantages and disadvantages are discussed in more detail below (cf. Chap. V, s. 1).

The value of manufactured jute before the war was approximately equivalent to that of the raw jute exported,[1] but now greatly exceeds it, in spite of the fact that the actual quantity of raw jute exported rose from a pre-war average of 464,000 tons to 642,000 in 1925–26, and 708,000 in 1926–27.

At the end of the nineteenth century, in a good year, "grain, pulse and flour" was India's leading item of export, but it now takes third place, even when the monsoon is above the normal. Naturally the quantity of foodstuffs exported fluctuates considerably from year to year, in correspondence with the harvest, but the tendency appears to be for a smaller proportion of the total crops to be exported, at least in the case of wheat.[2]

Rice (mainly from Burma) and wheat (from the North-West) are the chief food grains exported.[3] In a good year some 2 million tons of rice and (less often) 1 million tons of wheat may be exported. The quantity of rice exported in 1925–26 was 2·5 million tons, as compared with a pre-war average of 2·4 millions, but only 212,000 tons of wheat were exported in the same year as compared with a pre-war average of 1·3 millions. On the other hand, in 1924–25 the wheat export amounted to 1·1 millions. In 1926–27 2·0 million tons of rice and only 176,000 tons of wheat (excluding 59,000 tons of wheat flour) were exported. Little change is therefore apparent in the rice trade, whilst the position with regard to wheat is somewhat uncertain. Wheat is the natural food of the people in certain districts of the Punjab only, but owing to the profitable nature of the export trade after railways had been constructed and the Suez Canal opened, the area under wheat has increased enormously since 1870. The total

[1] Before the war the average value of raw jute exported was Rs.22 crores, as compared with Rs.20 crores in the case of manufactured jute. In 1925–26 the corresponding figures were Rs.37 and Rs.58 crores.

[2] The following figures illustrate this point:

Percentage of Exports to Total Production.

	Pre-war average.	War average.	Post-war average.	1924–25.	1925–26.	1926–27.
Rice	9	5	5	7	8	7
Wheat	14	9	3	13	3	2

Note that in 1924–25, the percentage exported approximated to the pre-war figure, but in all other years it has been much lower, especially for wheat (cf. *Annual Review of the Trade of India*, 1926–27, p. 203).

[3] The other foodstuffs exported include pulse, barley, jowra bajra, and maize.

crop of wheat in 1925–26 was estimated at 8·7 million tons. More extensive cultivation has been accompanied by more extensive consumption, and the probability is that in the future internal consumption will increase at least as fast as production and that export will not increase, even if it does not progressively decline.[1]

In India many publicists and industrials maintain that the export of foodstuffs should not be permitted, because a large proportion of the population is chronically underfed, and consequently the whole crop is needed within the country. To prohibit exports in a good year would, however, only make matters worse, as prices would fall and producers would attempt to retrieve their fortunes by sowing a smaller area with food-crops, in place of which they would grow cotton, oilseeds, or some other commercial crop which would yield a larger profit. On the other hand, the policy that has been followed of prohibiting exports in times of scarcity is advantageous, as even when internal prices rise, exports are at present not adequately checked, owing to the fact that producers are financially tied to dealers, and dealers to exporters.

The export of various types of oilseeds—linseed, cotton, castor, rape, sesamum, and copra, together with groundnuts [2] —became of great importance during the last quarter of the nineteenth century, but fluctuates considerably from year to year in correspondence with the relation between production and internal demand. Exports form a useful and profitable surplus which can be drawn upon by the internal market in a bad season. In 1925–26, no less than 1·2 million tons of oilseeds (in 1926–27, 838,000 tons) were exported, as compared with a pre-war average of 708,000 tons. Attempts have recently been made to express the oil in India, but by far the greater quantity is still exported in the raw state. The uses to which vegetable oil is put in the west are now legion, and it is felt that India does not yet make the best use of her oilseed resources. For instance, no use is made of a large proportion of the cotton seeds.[3] One of the difficulties preventing the

[1] The area under wheat and the total production has not declined since before the war, although exports have fallen.

[2] Groundnut is now the leading type. In 1925–26 no less than 455,000 tons were exported, as compared with a pre-war average of 211,800 tons.

[3] In America, on the contrary, the cotton seed is crushed, the oil used for edible purposes, and the cake as manure or cattle-food.

more extensive crushing of oilseeds in India is that there is at present no market for oil-cake in India, as the cultivators are too poor to utilise it either as a cattle-food or as manure. Moreover, the prevailing methods of refining vegetable oil are still very crude.

Tea is India's premier plantation product, and the tea trade will be discussed in some detail below in connection with the trade in other plantation products.[1] In 1925–26 some 325 million, and in 1926–27 349 million lbs. were exported, as compared with a pre-war average of 322 million lbs.

The export of raw hides and skins from India varies inversely with the rainfall, as in a dry year more cattle have to be killed. The export in 1925–26 and 1926–27 amounted to 51,000 tons, as compared with a pre-war average of 57,000 tons. Great efforts have recently been made to improve tanning and expand the leather industry, and the proportion of tanned and manufactured, as compared with raw, hides and skins exported has increased greatly since pre-war days. Whereas before the war the value of raw hides and skins exported was more than double that of "manufactured" hides and skins, the value of the latter is now rather greater than that of the former. Indian "kips"—*i.e.* partly tanned hides—are in great demand in the West for the uppers of boots and shoes. Unfortunately India's livestock are, on the whole, inferior, and there is great need for an improvement in the breeding and care of cattle and of sheep.[2]

It can undoubtedly be concluded that the export trade is in a flourishing condition, and that India is the producer of a large number of goods that are in great and increasing demand in the West. In one respect she is at a disadvantage in comparison with pre-war days. Whereas before the War the price of foodstuffs and raw materials was high in relation to the price of manufactures, to-day the situation is reversed. This means that at present Indian producers obtain relatively little for what they export, and have to pay relatively much for their purchases. The discrepancy between the price levels of these two great classes of commodities has, however, already

[1] Cf. Chap. VI, s. 3.

[2] One great difficulty is the religious veneration of the Hindus for the cow (and in many cases for all animal life). This prevents not only the consumption of meat by the upper classes, but also the improvement of the herds by careful selection and breeding.

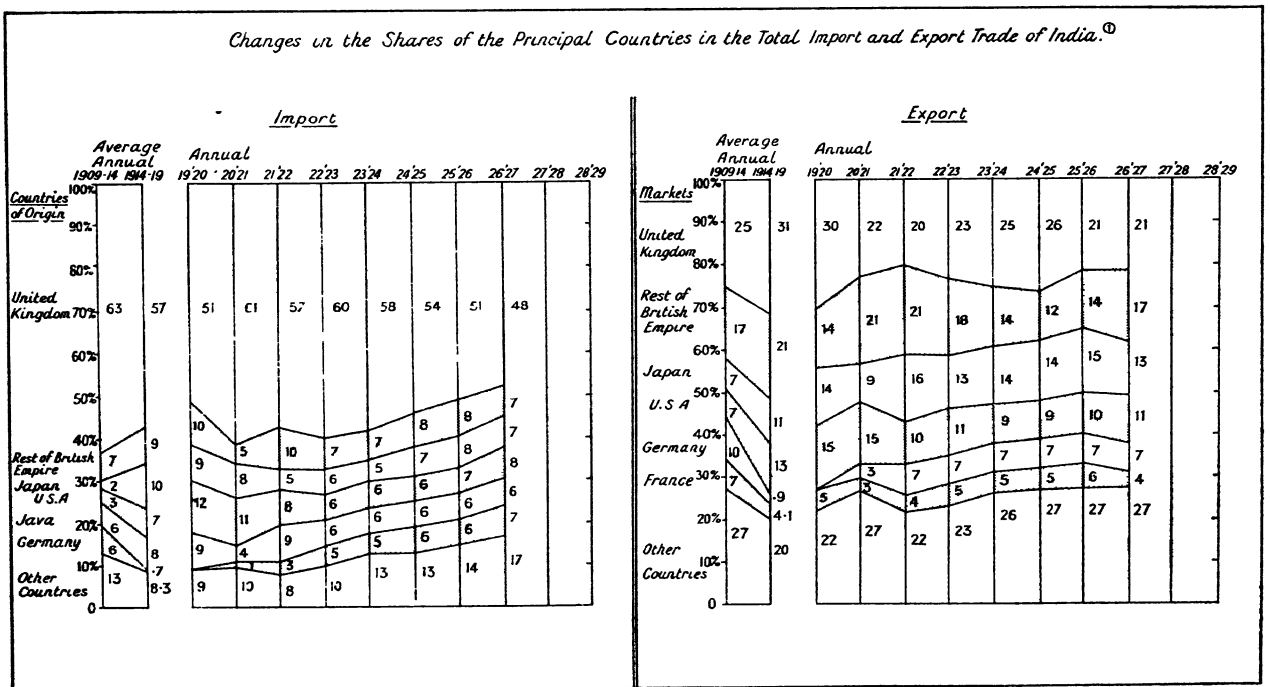


FIG. 16.—Changes in the Shares of the Principal Countries in India's Foreign Trade.

(1) Foreign countries in order of their importance in 1925–26. Specie is excluded, but re-exports are included.

begun to decrease, and it seems likely that it will eventually prove to have been merely a temporary result of war dislocations.

2. The Direction of Indian Trade.

The shares taken by particular countries in the foreign trade of India, and the changes in those shares since pre-war days can be studied in Fig. 16, p. 73. From this it appears that in 1925–26 India obtained 51 per cent. of her imports from the United Kingdom, 8 per cent. from the rest of the Empire, 8 per cent. from Japan, 7 per cent. from the United States, 6 per cent. from Java, 6 per cent. from Germany, and 14 per cent. from all other countries taken together. In 1926–27 the share of the United Kingdom had further declined to 48 per cent., that of the rest of the Empire was 7 per cent., that of Japan, 7 per cent., of the United States, 8 per cent., of Java, 6 per cent., and of Germany, 7 per cent.

The United Kingdom is, therefore, far and away the most important supplier of goods to India, although her share of the total import trade had fallen from 63 per cent. to 51 per cent. between 1913–14 and 1925–26. These figures indicate not only a relative decline, but also an actual decline in the quantity of goods sent to India by the United Kingdom.[1] Nevertheless India is still the largest market in the world for British goods.

India obtains from the United Kingdom the bulk of her imported cotton piece-goods, and a very large share of her plant, machinery, metal and miscellaneous manufactures, although the United Kingdom's share of the trade in most of these articles has notably declined since before the War.[2]

The shares taken by Japan and the United States in India's import trade have both markedly increased since 1913, although they have not remained at the very high level attained just after the conclusion of the War. Their gain in

[1] As the total volume of India's import trade calculated by estimating its value on the basis of pre-war prices is less than it was before the war, any given percentage of that trade represents a smaller quantity of goods to-day than before the war (cf. Fig. 15, p. 63).

[2] The actual quantities imported from the United Kingdom have declined in practically every case. The " weakness " of the Indian market for cotton piece-goods has been a major cause of the depression in Lancashire.

1925–26 had been mainly at the expense of the United Kingdom, the shares of all the other principal countries being in that year at almost exactly the same level as before the War.[1] In 1926–27 the principal changes were that the share of the United States rose above that of Japan, and that of Germany also notably increased. Both Japan and the United States supply India to a great extent with the type of manufactured goods previously purchased from the United Kingdom, and the increasing competition of Japan with both Lancashire and Indian cotton mills has been one of the most striking features of India's post-war trade.[2]

The United States supplies India with large quantities of mineral oil, motor-cars and machinery, for all of which the demand tends to expand rapidly and progressively.

At the beginning of this century Germany and Austria-Hungary were sending ever-increasing quantities of goods (mainly cheap miscellaneous manufactures, of a type that might well have been produced in India itself) to India, and although this trade was, of course, wiped out during the War, by 1925–26 Germany had regained her pre-war share of the Indian import trade, and in 1926–27 had even surpassed it. Owing to the political changes it is difficult to judge how far trade has revived with what was formerly Austria-Hungary. Italian goods have found a rapidly increasing market in India since the War.[3] Cheapness, good business organisation and pushful marketing and financial methods constitute Germany's great " pull " in the Indian market.

Java now, as before the War, sends mainly sugar to India, and maintains a steady 6 per cent. of the total import trade.

In 1925–26 India sent 21 per cent. of her total exports to the United Kingdom, 14 per cent. to other parts of the Empire, 15 per cent. to Japan, 10 per cent. to the United States, 7 per cent. to Germany, 6 per cent. to France, and 27 per cent. to all other foreign countries. In 1926–27 the figures were 21 per cent. to the United Kingdom, 17 per cent. to the rest of the Empire, 13 per cent. to Japan, 11 per cent. to the United States, 7 per cent. to Germany, and 4 per cent. to France.

[1] Cf. Fig. 16, p. 73.

[2] Cf. s. 5, below.

[3] Italy's share in India's total trade rose from 2·3 per cent. pre-war to 3·8 per cent. in 1925–26. France's share in the import trade was 1·5 per cent. pre-war and 1·4 per cent. in 1925–26.

Although the United Kingdom heads the list she is much less important as a market than as a supplier of imports, and her share in the total export trade has declined since before the War, when it amounted to 25 per cent. The share of other parts of the Empire also declined until 1926–27, in which year it regained the pre-war figure of 17 per cent. Germany has not yet regained her former position as a market, but the shares of Japan and the United States have increased as rapidly as in the import trade. The decline of Japan's share in 1926–27 will probably prove to be a purely temporary phenomenon, due to the fall in the export of raw cotton. The United States takes jute (raw and manufactured), raw hides and skins, lac, and oilseeds from India. Java does not appear separately in this list, as she consumes few Indian products except some gunny bags and rice. France, Italy, Belgium, and the Netherlands, on the other hand,[1] are much more important as markets than as suppliers of imports. France imports large quantities of oilseeds together with manufactured jute and raw cotton. The oilseeds are crushed at Marseilles, being extensively converted into pure olive oil!

The United Kingdom is India's best market for wheat and tea. She also takes considerable quantities of both oilseeds and vegetable oil, raw and manufactured jute, and dressed (as well as some raw) hides and skins.[2] She is India's best customer for manufactured goods.[3] On the other hand, she cannot use the short-stapled Indian cotton, and does not consume much rice. The basis of the exchange between India and the United Kingdom can in general be termed "specialisation," and even if India obtained complete self-government immediately it would undoubtedly be to her economic interest to continue this branch of trade with little alteration. Most of the manufactured goods imported from

[1] Italy and Belgium import raw cotton, raw jute, and oilseeds, and the Netherlands imports raw cotton and rice. Italy is the chief Continental market for Indian cotton, and took no less than 456,000 out of 1,232,000 bales sent to the Continent in 1925–26.

[2] In 1926–27 the United Kingdom imported no less than 93 per cent. of the total tanned hides and 81 per cent. of the tanned skins exported from India (cf. *Annual Review of the Trade of India*, 1926–27, p. 89).

[3] Other manufactured Indian goods exported to the United Kingdom include cotton handkerchiefs and shawls, wrought brassware, lacquerware, furniture and cabinetware, sports goods, pickles and condiments, myrobalan extract, casein, thymol, and teak keys for railways (cf. *Report of the Indian Trade Commissioner*, 1926, p. 28).

the United Kingdom cannot at present be produced at a profit in India.

Continental Europe in general, and Germany in particular, import mainly raw materials and rice from India. Germany's principal imports from India are raw jute, rice,[1] raw cotton, and raw hides and skins. In most cases there is a higher tariff on manufactures than on raw materials imported into Germany,[2] including manufactured hides and skins and products derived from oilseeds.

Japan is the best market for India's raw cotton, of which she took no less than 52 per cent. of the total exports in 1926–27.[3] The fact that India's exports to Japan are far greater than her imports from that country should not be overlooked when discussing the recent increase in imports of Japanese manufactures. It is probable that if a tariff were laid on Japanese products, Japan might retaliate, and Indian exports to Japan would suffer.

India's trade with China (and with Hongkong) has progressively declined since the beginning of the century, and is no longer of first-rate importance. Before the War, came the great decline in the export of opium to China that has already been mentioned. This line of trade has now practically come to an end. In addition, ever since the beginning of this century India's exports of yarn (and to a lesser extent of piece-goods) to China have progressively declined.[4]

Ceylon and the Straits Settlements continue to account for about the same proportion of India's total trade as before the War. Ceylon is a very important market for Indian produce (especially rice and piece-goods), but India does not need Ceylon's products, which are much the same as those of South India.[5] The Straits Settlements take considerable quantities of Indian rice and of cotton and jute manufactures, and send in return spices and tin.

Australia, whose trade with India, although still small, is increasing, sends provisions (largely canned goods),[6] horses

[1] Indian rice is largely converted into starch in Germany. In 1925–26 Germany took 343,000 tons of rice, and 810,000 bales of jute.

[2] Cf. Kelly, *Custom Tariffs of the World*, 1925.

[3] Compared with 59 per cent. in 1925–26, 50 per cent. in 1924–25, and 43 per cent. in 1923–24.

[4] Cf. s. 4, below.

[5] Cf. s. 6, below.

[6] Australia now sometimes sends wheat to India—a quite new feature of

(which stand the climate well) and coal. Her principal import from India is gunny bags.

Persia sends mineral oil—especially fuel oil—to India, and takes in return cotton manufactures and grain, whilst Iraq sends some fruit and vegetables in return for cotton goods and rice.

Two more interesting, if minor, lines of trade deserve particular mention, *i.e.* the trade with British East Africa [1] and with the Union of South Africa.

The chief feature of India's trade with British East Africa is the significant recent increase in India's imports of Uganda cotton, *via* Mombasa. This item increased in value from Rs.75 lakhs in 1920–21 to no less than Rs.3,37 lakhs in 1925–26. This latter figure represented 15,700 tons,[2] but a considerable part of it was re-exported. Apart from raw cotton the trade between the two countries is not large. The total imports from Kenya in 1925–26 were valued at Rs.4,06 lakhs, and exports at Rs.1,73 lakhs.

The value of India's total trade with the Union of South Africa is even less than that with British East Africa—imports in 1925–26 amounting to Rs.42 lakhs and exports to Rs.2,84 lakhs—but it is interesting on account of the excess, by value, of India's exports (mainly jute gunnies, and rice) to the Union, and of the Indian import of South African coal.[3] The discrepancy between India's exports to, and her imports from, the Union, is counterbalanced partly by the export of coal from the Cape at ballast, or at any rate at very low freight rates,[4] and partly by India's trade with Kenya and Mauritius. From both these latter countries India normally receives more than she sends, so that vessels leaving the Cape in ballast call in at Mombasa or St. Louis for cargoes. Portuguese East Africa [5] carries on the same type of trade with India as the Union of South Africa, and there is almost as great a surplus of exports from India to Beira as to the Cape. Here, again,

Indian trade. The first time wheat was imported from Australia was in 1921. There was a small import in 1924–25, and a larger import in 1925–26 and 1926–27 (in the latter year 40,000 tons).

[1] In this context "British East Africa" connotes Kenya Colony, Uganda, Zanzibar, and Pemba.

[2] In 1926–27 the figure was 12,700 tons.

[3] Cf Chap. II, p. 40, and Chap. VII, p. 200.

[4] Chap. VII, p. 200.

[5] In 1925–26 the value of India's exports to Portuguese East Africa was Rs.1,36 lakhs, and of her imports was Rs.33 lakhs only.

the only important import into India is coal.[1] India's willingness to buy coal constitutes one of the many commercial attractions of the Indian Ocean.

3. The Trade of the Principal Ports.

So far we have been considering India's trade as if it were carried on between India and other countries as single units. We must now try to get nearer to reality by discussing the trade of the principal ports. This is a comparatively simple task, owing to the fact that over 90 per cent. of the total foreign trade of India passes through five main ports: *i.e.* Calcutta (whose total trade in private merchandise, during the quinquennium ending 1925–26, amounted to Rs.208·2 crores, or 35·8 per cent. of the total for the whole of India), Bombay (Rs.190·0 crores, or 32·7 per cent.), Karachi (Rs.59·1 crores, or 10·2 per cent.), Rangoon (Rs.54·5 crores, or 9·4 per cent.), and Madras (Rs.30·2 crores, or 5·2 per cent.).[2]

This extreme concentration of India's foreign trade is due primarily to the fact that expensive artificial port and harbour works have been necessary to enable large vessels to trade safely at all times of the year,[3] and secondarily to the influence of the railways, which centre upon the one or two outstanding ports.

When merchandise alone is considered, Calcutta has the largest trade, but if specie is included Bombay heads the list. This fact is illustrated in Fig. 17, p. 80, which shows that in the year 1925–26 the total trade of Bombay, in merchandise and specie, amounted to no less than Rs.235·4 crores, whilst that of Calcutta amounted to Rs.228·8 crores. The inclusion of specie also increases the percentage of India's total trade that is performed by the five main ports.

Calcutta has an immense export trade, and an exceptionally

[1] In 1925–26 the coal imported from Beira was valued at Rs.28 lakhs.

[2] Cf. Fig. 14, pp. 58, 59, which shows the size and nature of the trade in merchandise of each of these ports on the same scale as that of the other principal ports of the Indian Ocean. Here, again (cf. p. 61, above), the trade of Pondicherry, Goa, and other "foreign" ports is excluded, owing to lack of statistics (cf. Appendix A).

[3] The monsoon on the west coast prevents trade, except with first-rate ports such as Bombay and Karachi, for several months each year, and on the east artificial works are necessary on account of the surf and in order to prevent the formation of sandbanks.

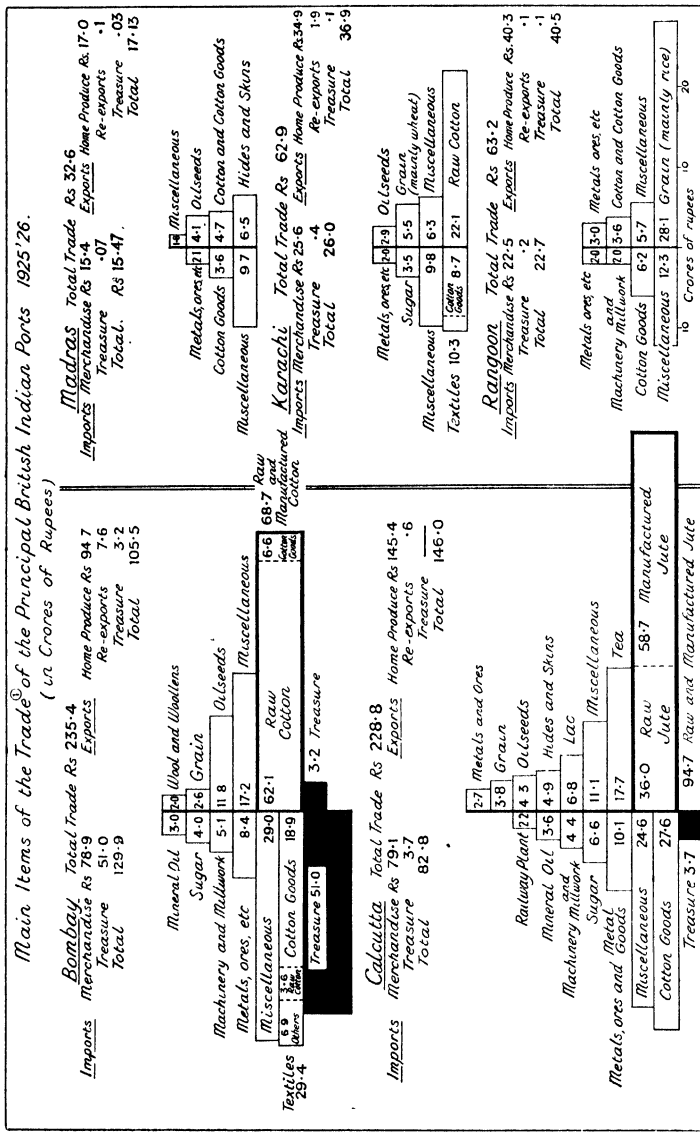


FIG. 17.—Principal Items of the Trade of British Indian Ports.
(1) Including treasure. Government stores excluded.

great surplus of exports over imports of merchandise.[1] It is

[1] This surplus amounted to no less than Rs.66·9 crores in 1925–26, and Rs. 63·2 crores if specie as well as merchandise is included. Bombay had a surplus of Rs.23·4 crores of exports over imports of merchandise in the same year, but including specie it had a surplus of imports of Rs.24·4 crores.

the great outlet for the agricultural produce of the great Ganges plains (which include some of the most fertile districts of the whole country), for part of the great tea area of Northern India,[1] and for the great Bengal jute industry.

Hence seven main classes of exports from Calcutta can be distinguished :

(i)	Jute, raw and manufactured [2]	Rs.94·7	crores,	in 1925–26.
(ii)	Tea	Rs.17·7	,,	,, ,,
(iii)	Lac	Rs.6·8	,,	,, ,,
(iv)	Hides and Skins . . .	Rs.4·9	,,	,, ,,
(v)	Oilseeds	Rs.4·3	,,	,, ,,
(vi)	Grain (mostly rice) . . .	Rs.3·8	,,	,, ,,
(vii)	Metals and ores	Rs.2·7	,,	,, ,,

In addition some raw cotton, opium, hemp, and a number of miscellaneous articles pass out through the port.

The imports of all the principal Indian ports are very similar, and consist mainly of the various manufactured goods which have already been mentioned as forming the bulk of India's imports. Cotton piece-goods, metal ores and manufactures, sugar, and mineral oil bulk particularly large in the import trade of Calcutta and Bombay.[3]

The difficulty of obtaining sufficient outward-bound vessels for Calcutta's large surplus of exports which will be mentioned again in connection with the Bengal coal industry,[4] besets Calcutta's trade as a whole, and is accentuated by the fact that Calcutta, unlike most of the other large Indian ports, is off the main trade routes of the Ocean. Tramp steamers are not attracted, as they have difficulty in obtaining cargoes of imports. Another disadvantage of the port is that it is situated no less than 80 miles from the open sea, up a difficult river with a shifting bed. The actual port facilities are, however, excellent and up-to-date.

Bombay disputes with Calcutta for the title of the premier

Rangoon had a surplus of exports of 17·9 crores, Karachi of Rs.11·2 crores, and Madras of Rs.1·7 crores in 1925–26. In some years (for instance, in 1924–25) Madras actually has a surplus of imports of merchandise.

[1] Some of the tea is exported from Chittagong.

[2] The manufactured jute was valued at Rs. 58·7 crores, and the raw jute at Rs. 36·0 crores.

[3] Cf. Fig. 17, p. 80.

[4] Cf. p. 199.

port of India, the justice of its claim depending, as we have seen, upon whether or no specie is included in the trade figures. It is the nearest port of call on the Suez route to the East, and is also convenient for vessels plying between South and East Africa and Suez. Its importance is almost entirely dependent on the railways, without which communication with the Deccan and with Central India would be practically impossible. Hence the trade of Bombay has expanded more rapidly than that of any other port since the beginning of the railway era.

From Bombay, the bulk of India's raw cotton, most of India's manganese, and large quantities of cotton piece-goods, are exported.[1] Bombay has been preferred to Karachi by many Punjab cotton exporters, in spite of the longer railway haul, because of its attractions as India's premier port on the Suez route, and as the centre of the Indian Cotton Mill Industry. It has also been preferred in the past, partly because during the War Government stores were given preference over private merchandise on the (State-managed) North-Western Railway, and partly because of Karachi's limited port facilities.[2]

Bombay is also the outlet for large quantities of oilseeds, wool and woollens, and foodstuffs (especially rice).

The War increased the relative importance of Bombay as it served as the base for military operations in Mesopotamia and East Africa.

The principal classes of Bombay's exports are therefore as follows:

(i) Cotton[3]	Rs.68·7	crores	in 1925–26.
(ii) Oilseeds	Rs.11·8	,,	,, ,,
(iii) Grain (mainly rice) . . .	Rs.2·6	,,	,, ,,
(iv) Wool and woollens . . .	Rs.2·0	,,	,, ,,

Karachi and Rangoon compete for the position of India's third greatest port. Taking the quinquennial average for the years ending 1925–26, Karachi led, with a total trade of

[1] About 70 per cent. of the production of the Indian cotton mill industry is carried on in the Bombay Presidency.

[2] Recently, however, the situation in this respect has altered. Note the large cotton exports from Karachi in 1925–26, as shown in Fig. 17 (cf. p. 80).

[3] Of this raw cotton amounted to Rs.62·1 crores, and cotton goods to Rs.6·6 crores.

Rs.59·1 crores, as compared with Rangoon's Rs.54·5 crores; but in the year 1925–26 Rangoon led with a total of Rs.62·9 crores, to Karachi's Rs.62·4 crores.[1]

Karachi is the great wheat exporter, as the production of wheat is confined to North West India, the Punjab being the principal wheat-producing Province. Furthermore, the dry climate of Karachi is peculiarly suitable for the storage of wheat before export. A large, and increasing, quantity of raw cotton is also exported, particularly from the irrigated areas (including the Canal Colonies) of the Punjab. The cotton trade has recently been stimulated by improvements in transport facilities and by port improvements and extensions.[2]

Karachi's main exports fall into three classes; *i.e.*

(i)	Raw cotton	Rs.22·1 crores in 1925–26.
(ii)	Grain, pulse and flour (mainly wheat)[3] . .	Rs.5·5 ,, ,, ,,
(iii)	Oilseeds	Rs.2·9 ,, ,, ,,

Rangoon is the great centre of the Burma rice-milling industry, and the main outlet for all Burmese products. Like Calcutta it is situated some distance (24 miles) up the river. Its main exports are:

(i)	Grain, pulse, and flour (mainly rice)	Rs.28·1 crores in 1925–26.
(ii)	Cotton and cotton goods .	Rs.3·6 ,, ,, ,,
(iii)	Ores and metals	Rs.3·0 ,, ,, ,,

In addition considerable quantities of timber and mineral oil are exported.[4]

Rice-milling is a highly-organised, large-scale industry, but unfortunately involves the defect that in removing the outer cuticle and polishing the grain, milling deprives the rice of its vitamin contents, and so lowers its nutritive value. This is

[1] Cf. Figs. 14 and 17, pp. 58, 80. Treasure is excluded.

[2] One problem is the difficulty of increasing the water-supply of the port, which has to be obtained from a great distance.

[3] In 1925–26 the value of the wheat exported from Karachi was Rs.3·6 crores, an exceptionally low figure, owing to the failure of the monsoon, which also reduced the exports of oilseeds below normal. In 1924–25 the value of the wheat exported amounted to no less than Rs.16·1 crores.

[4] Rangoon has, of course, also a very large trade with the Indian mainland, which is not included in these figures (cf. p. 85, below).

of little importance, perhaps, to European consumers, who obtain vitamins from other sources, but is an extremely serious matter from the point of view of Eastern consumers, whose diet is severely restricted.

Madras is the only one of India's five great ports that has not a large excess of exports over imports, and that has not recently experienced a rapid increase in trade. The explanation of both these facts is that Madras serves as the outlet for no areas of specialised production, but has a hinterland that is more or less self-sufficient as regards both foodstuffs and manufactures. Moreover, Madras, like Calcutta, is off the main Ocean routes. The principal exports are :

(i) Raw and manufactured hides and skins	Rs.6·5 crores	in 1925–26.
(ii) Cotton and cotton goods .	Rs.4·7 ,,	,, ,,
(iii) Oilseeds	Rs.4·1 ,,	,, ,,

Almost the whole of the remaining trade of India is divided amongst ten other ports.[1] Here again, in every case, there is a considerable surplus of exports.

Chittagong usually does the largest trade of these minor ports, as it serves as an outlet for some of the tea of Assam and for the tea and jute of certain northern districts of Bengal.[2] Tuticorin is the chief port trading with Ceylon, although part of this trade has recently been diverted to Dhanushkodi.[3] Bassein, Moulmein, and Akyab are the only Burmese ports, besides Rangoon, that are engaged in foreign trade, and the foreign, as opposed to coastal, trade of Akyab is so small that it cannot be considered a "second-class" port. Cochin has a rich hinterland, but has been prevented from expanding in the past mainly by the bar across the entrance to the port. Harbour works are at present under construction. Vizagapatam has only a small trade at present, but should expand rapidly when the railway line inland to Raipur (on the Bengal-Nagpur Railway) has been completed. Eventually Vizagapatam should become an important outlet for the produce, particularly the

[1] Cf. Fig. 14, p. 58. The five chief ports and these ten second-class ports accounted in 1925–26 for over 98 per cent. of the total trade of India. The five great ports alone accounted for over 93 per cent.

[2] In 1925–26 Tuticorin held first place.

[3] The mails are despatched from Dhanushkodi, apart from which the port is of very minor importance.

manganese, of the Central Provinces and of Central India as a whole.

In addition to her trade with foreign countries, India has a considerable coastal trade, carried on partly by small wooden native sailing vessels which ply between a large number of minor ports. This trade is separately registered, not being included in the figures of foreign trade, and usually amounts to about one-third of the value of the latter, but for the last few years only the figures for the trade between Burma and the mainland have been given in the *Annual Review of the Trade of India*. The value of this latter trade rose from an average of Rs.20·13 crores for the pre-war period, to Rs.44·99 crores in 1925–26. The principal articles concerned are Bengal coal, jute, gunnies and hessians, Bombay and Madras cotton piece-goods, and Bihar iron and steel goods (shipped from Calcutta), which are exchanged for Burmese rice, petroleum and timber.[1]

At this point a few words may be said about the trade of Aden. Although until 1927 this port was under the political and administrative jurisdiction of the Government of Bombay,[2] the Indian Sea Customs Acts did (and do) not apply to it, and from this point of view it is treated as a foreign port. Aden is important principally as a port of call on the Suez Route, and as an entrepôt for the adjacent Italian and French Colonies, Abyssinia, Arabia, the Sudan, the Persian Gulf, and Mombasa.[3] For the quinquennium ending 1925–26, its average total imports were valued at Rs.7·3 crores, and its exports at Rs.5·8 crores.[4]

In 1926–27 the value of India's imports from Aden amounted to Rs.0·52 crores, of which salt accounted for Rs.0·39 crores, whilst exports from India to Aden were valued at Rs.1·48 crores, and included cotton yarn and piece-goods, tobacco, wheat, rice and spices.

[1] Some Burmese rice is always sent to the mainland, but in a bad season large quantities are also diverted from foreign markets to the affected districts.

[2] From March, 1927, onwards the Imperial authorities took over military and political control of Aden, leaving to India the civil administration only (cf. *Times*, March 4, 1927).

[3] Cf. C. W. E. Cotton, *Handbook of Commercial Information for India*, p. 50.

[4] Cf. Fig. 14, p. 59.

4. The Trade in Raw and Manufactured Cotton.[1]

India's trade in raw and manufactured cotton, which has already been mentioned incidentally in several connections, is of such outstanding importance that it demands separate, more detailed analysis.

The main figures of cotton imports and exports are shown in the following table :

IMPORTS.

(In lakhs of rupees.)

	Pre-war average.[2]	1924-25.	1925-26.	1926-27
Raw cotton	*1,02*	*4,24*	*3,64*	*5,03*
Quantity (1,000 tons)	12	20	21	46
Cotton Yarn	*3,77*	*9,66*	*7,76*	*6,62*
Quantity (in million lbs.)	41	56	51	49
Cotton Piece-goods	*45,23*	*68,73*	*53,80*	*55.01*
Quantity (in million yds.)	2,616	1,791	1,540	1,766
Other Manufactures	*4,68*	*3,93*	*4,09*	*3.42*

EXPORTS.

(In lakhs of rupees.)

Raw Cotton	*33,27*	*91,96*	*94,99*	*58,60*
Quantity (1,000 tons)	391	594	745	569
Cotton Yarn	*9,13*	*3,70*	*2,93*	*3,08*
Quantity (in million lbs.)	129	36	31	41
Cotton Piece-goods	*2,37*	*6,84*	*6,72*	*7,67*
Quantity (in million yds.)	156	180	164	195

From this it appears that India is, on the one hand, an important source of raw cotton, and, on the other hand, is beginning to import appreciable quantities of raw cotton. She is one of the greatest markets in the world for cotton piece-goods and (to a lesser extent) for cotton yarn, whilst at the same time she exports considerable, and increasing, quantities of piece-goods, and smaller (and decreasing) quantities of yarn. Both imports and exports of raw cotton have increased considerably since before the war ; imports of yarn have altered but little, but exports have greatly decreased, and are now actually less than imports ; imports of cotton piece-goods have greatly declined, but remain very much greater than exports, although the latter have increased.

The explanation of these cross-currents of imports and exports is, of course, that long and short-stapled cotton respectively is used for the production of different types of yarns and

[1] Cf. Fig. 5.

[2] Quinquennial average.

of piece-goods, the former being used for yarns of higher counts [1] and finer quality piece-goods, and the latter for low count yarns and coarser piece-goods. As Indian cotton is, as a whole, short-stapled, Indian mills produce and export in the main lower count yarns and relatively coarse piece-goods. Finer quality piece-goods have, therefore, to be imported.[2] High count yarns are imported for the use of the hand weavers (since the extinction of hand-spinning), who cannot use the Indian mill-spun yarns for their finer products. Long-stapled Uganda cotton is imported for use in some of the Bombay mills, which are now beginning to produce better quality goods, as it can be landed there at a price that undercuts or competes with the few types of long-stapled Indian cotton (such as Cambodia, Punjab-American, Dharwar-American, and so on) all of which are grown at a considerable distance from Bombay City, and have therefore to be transported some distance by rail. On the other hand, certain long-stapled Indian cottons, such as Cambodia (grown in South Madras) can be exported by sea to the United Kingdom in competition with American cotton.

Japan, China, and certain Continental countries at present require considerable quantities of short-stapled cotton and low-count yarns for their mill industries, whilst many neighbouring areas, such as the Straits Settlements, Ceylon, Persia, Iraq, and British East Africa, consume the coarse Indian piece-goods, as well as the finer products of Lancashire.

India, Lancashire, and Japan each specialise in the manufacture of certain types of goods: India in the coarser mill-products, and in both extremely coarse (and cheap) and extremely fine hand-made goods; Lancashire in the finer mill-made goods; and Japan in hosiery and other miscellaneous cotton manufactures. In marginal cases, that is, in the medium counts of yarn, and in medium quality piece-goods, the products of the three countries compete. The tendency in

[1] By a "count" is indicated the number of hanks (of 840 yards in length) which weigh 1 lb. avoirdupois. For instance, "Count 20" means that 20 hanks weigh 1 lb. avoirdupois. Counts from 1 to 20 are considered to be "coarse," from 20 to 40 "medium," and above 40 "fine."

[2] Until the beginning of the nineteenth century very fine quality piece-goods were woven by hand from short-stapled Indian cotton, which was hand-spun into fine yarn. This indigenous industry, however, was then to a great extent ruined by the cheaper products of Lancashire, and hand-spinning has been practically extinguished.

the past has been for the Indian mill industry to extend its "monopoly" upwards to higher counts of yarn, and finer piece-goods, and for Lancashire to concentrate more and more on the still finer types. Japan, meanwhile, has tended to compete more and more in the medium quality products, at the expense sometimes of the Lancashire, sometimes (but to a lesser extent) of the Indian mill industry.

In order to obtain a clear idea of the trade in cotton and cotton-goods as a whole, it is therefore necessary to analyse separately the trade in raw cotton, yarn, and piece-goods respectively.

The acreage sown with cotton in India has increased considerably since pre-war days. In 1913–14 10·3 million acres were under cotton, whereas since the War there have usually been 14 or 15 million acres under the crop, and in 1924–25 and 1925–26 the acreage was 17·4 and 18·1 million acres respectively. The estimated total output in the latter two years was 6·9 and 6·5 million bales (of 400 lbs.) and the export 3·3 and 4·1 million bales respectively,[1] as compared with a pre-war (quinquennial average) total production of 4·7 million bales, and an export of 2·4 million bales. In 1926–27 the total output fell to 4·9 million bales, and the export to 3·1 millions.[2]

The estimated percentage of export to output has thus increased as well as the actual export. Whereas the pre-war quinquennial average percentage of export to production was 56 per cent., the quinquennial average from 1921–22 to 1925–26 was 66 per cent., and in 1925–26 it was no less than 69 per cent.[3] Export, no doubt, has been encouraged since 1920–21 by the depression in the Bombay cotton mill industry, but even when allowance is made for the effects of this depression, it is clear that India has a very large surplus of raw cotton to export.[4]

Japan is far and away the most important market for Indian raw cotton, taking, as we have already seen,[5] some

[1] Cf. *Statistical Abstract.*

[2] *Annual Review of the Trade of India,* 1926–27, p. 62.

[3] Sixty-four per cent. in 1926–27.

[4] Although there has been a depression in the cotton mill industry, the total consumption of raw cotton by the mill industry and by hand-weavers has increased since pre-war days.

[5] Cf. p. 77, above.

59 per cent. of the exports in 1925–26, and 52 per cent. in 1926–27. After Japan, come China, Italy, Belgium, the United Kingdom, Germany, and France, as markets for Indian cotton. The United Kingdom of recent years has tended to import increasing quantities, especially of " Cambodia," which is now extensively used at Oldham.[1]

The Japanese market is, therefore, of the greatest importance to India, but it is by no means a secure one, as Japan imports American, as well as Indian, cotton. As Japan's cotton mill industry develops, the tendency is for it to produce finer quality yarn and piece-goods, and therefore to demand more long-staple raw cotton.

Bombay is the great cotton exporter, but smaller quantities are also exported from Karachi, Tuticorin, Madras, Rangoon, and Calcutta.

To what has already been said about India's imports of raw cotton, in connection with India's trade with British East Africa, little need here be added. Nearly the whole of the raw cotton imported comes from Mombasa: *e.g.* in 1925–26 no less than 15,700 tons, as compared with 206 tons from the United Kingdom, and 103 tons from the United States. Over half is still re-exported to the United Kingdom, but an increasing amount is utilised in Bombay mills.

The import figures for 1926–27 were quite exceptional; 12,700 tons were imported from Mombasa, 5,000 from the United Kingdom, and no less than 25,039 from the United States![2] This, however, must be considered as a purely temporary phenomenon, due to the bad crop in India and the exceptionally large crop (and therefore low prices) in America.

We can now turn to the trade in yarn. Here we find that

[1] The value of Indian cotton exported to the principal foreign markets in 1925–26 is shown in the following table. As the best Indian cotton only is exported to the United Kingdom, its value is high in relation to bulk.

Markets.	*Value.*
Japan	Rs.47,47 lakhs.
China	Rs.12,12 ,,
Italy	Rs.10,25 ,,
Belgium	Rs. 5,61 ,,
United Kingdom	Rs. 5,42 ,,
Germany	Rs. 4,97 ,,
France	Rs. 4.25 ,,

(Cf. *Statistical Abstract.*)

[2] Cf. p. 127.

imports have slightly increased since before the War, but that this increase has not been out of proportion to the increased production of yarn by Indian mills, so that the relation between imports and production remains much as before. On the other hand, there has been a striking change in the source of the yarn imported. Whereas in 1913–14 Lancashire supplied 80 per cent. of the total and Japan only 2 per cent., in 1925–26 Lancashire supplied only 31 per cent., whilst Japan supplied no less than 65 per cent.[1] The bulk of this imported yarn is utilised by hand-loom weavers, and consists mainly of counts 31 to 40. This used to be Lancashire's "staple line," but in 1925–26 Japan supplied 20 million lbs. of yarn of this type, to Lancashire's 4 millions. So far Japan's gain has been mainly at the expense of Lancashire, but it is not to be expected that Japan's ambitions will not extend further in the future. Although the Indian mill industry has not suffered from increased yarn imports so far, it has suffered from the loss of a large part of its former yarn export. The former extensive market in China for India yarns has been practically extinguished, owing—apart from political disturbances—to the increased competition from Japan and from the Chinese mill industry itself. Exports of yarn to China fell from 170 million lbs. in 1913–14 to only 9·7 millions in 1925–26. This has hit millowners in Bombay city in particular, as they produced almost the whole of the yarn that went to China. Recently, moreover, there has been a marked increase in imports of yarn from China, which rose from 327,000 lbs. in 1925 to 11 million lbs. in 1927.[2]

It is, however, with regard to imports of piece-goods that the greatest change has taken place since before the War. In 1925–26 only 1,540 million yards were imported, as compared with a pre-war average of 2,616 millions. In this case Lancashire has suffered from increased competition from both the Indian and the Japanese industries.[3] Whereas, before the War, Indian mills produced only 29·6 per cent. of the total piece-goods available for consumption in India, in 1925 they produced 55·9 per cent. of the total. If hand-woven

[1] Cf. *Annual Review of the Trade of India*, 1925–26, p. 4.
[2] Cf. *Times*, Feb. 25, 1928, "Indian Cotton Imports."
[3] The production of piece-goods in Indian Mills increased from a pre-war average of 1,105 million yards, to 1,954 millions in 1925.

goods are included, in the latter year Indian mills and hand-weavers together produced no less than 65·8 per cent. of the total. Again, whereas in 1913–14 the United Kingdom provided 97·1 per cent. of the total imports of piece-goods, and no other country as much as 1 per cent., in 1925–26 she provided only 82·3 per cent., while Japan provided 13·9 per cent. Here, again, there is little strength in the demand for the protection of the Indian mill industry against Japanese products, apart from the natural anxiety felt about future developments, and from the feeling that it is an anachronism that Japanese cotton goods should be able to compete at all in the Indian market.

The situation as regards piece-goods in 1925–26 may be summed up by saying that, owing in the main to increased cotton prices, particularly in relation to the prices of foodstuffs and raw materials, the Indian demand for cotton piece-goods tends to be less than it was before the War, and that of this decreased total a much larger proportion is now supplied by the Indian mill industry,[1] whilst in the import trade Japan has made considerable progress at the expense of Lancashire.

The overseas as well as the internal markets for Indian piece-goods have increased since before the War, as is shown by the figures given above.[2] Here we find that the increased export has consisted of a decline in grey, but a rapid increase in coloured piece-goods exported, whilst the direction of these exports has also changed, less now going to the Far East, and more to Persia, Iraq, and British East Africa.

Finally, we may notice that since 1921–22 there has been a severe depression in the Indian, especially the Bombay, cotton mill industry, which has been attributed to a variety of causes, including Japanese competition, the fixing of the exchange value of the rupee at 1*s.* 6*d.*, over-capitalisation during the post-war boom, and faulty internal management.[3] This is no place in which to analyse the causes of the depression, but it is of importance to note that the agitation of mill owners for Government assistance has crystallised into a demand for the protection of the industry against competing products, particularly from Japan.

[1] The output of Indian mills has increased absolutely as well as relatively.

[2] Cf. p. 86, above.

[3] Cf. *Report of the Statutory Inquiry into the Indian Cotton Mill Industry*, 1927.

The Tariff Board which carried out an inquiry into the position of the industry, recommended, in 1927, (*a*) that a combined bleaching, dyeing, and printing factory should be established at Bombay, with Government assistance; (*b*) that a bounty of one anna per pound should be given on the production of yarn above 32*s*.; (*c*) that the import duty on cotton piece-goods should be raised from 11 to 15 per cent. for three years; and (*d*) that the import duties on cotton textile machinery and certain mill-stores should be remitted.

The Government rejected the proposals to give a bounty on yarn and to raise the duty on imported piece-goods, on the grounds that a well-established industry should not need protection of this type.[1] In view of the serious opposition engendered by this decision, the Government eventually partially gave way, and brought in a bill providing not only for the removal of the import duty on textile machinery and mill-stores, but for the imposition, for three years, of a duty of 1½ annas per lb. (or 5 per cent. *ad valorem*, whichever is the higher) on all imported yarn.[2] These measures became law in August 1927.

With regard to Japanese competition, it can shortly be said that little evidence exists of "unfair competition"—apart from the fact that Japanese factory laws are slightly less strict than the Indian laws—but that Japan reduces costs of production by employing a far larger number of women, and increases profits on the capital invested by working double-shifts. In addition it seems clear that on the whole her commercial organisation is better than that of India, and that, in particular, her methods of purchasing raw cotton, from both America and India, are extremely efficient.

5. India's Tariff System.

At the beginning of this century the Indian tariff system was designed for revenue purposes, and consisted of a "general" import duty of 5 per cent., higher specific duties on a number of excisable articles, such as liquor and tobacco,

[1] It accepted proposals (*a*) and (*d*).

[2] The specific duty works out at more than 5 per cent. *ad valorem* for all yarn priced at less than Rs.1-14 per lb. The bill also provided for the reduction of the duty on artificial silk yarn, in order to assist hand-weavers, who now use artificial silk to an increasing extent.

whilst certain articles that were either not produced in India, or were urgently needed (such as railway materials, machinery, and iron and steel goods) were admitted free.[1] During the War the need for additional revenue became so urgent that in 1916, 1917, 1921, and 1922, the general rate was progressively raised, the specific duties on luxuries and excisable articles were increased, a number of low export duties were imposed, and the number of articles exempted from duties was reduced. Hence by 1922, although the principle of "protection" had not yet been accepted, in practice the high "revenue" duties undoubtedly had, in many cases, a protective effect, and in addition the so-called "countervailing excise" had ceased to balance the import duty on cotton piece-goods, as it had been left at 3½ per cent., whilst the import duty had been raised to 11 per cent.

In 1922 there were six main schedules for import purposes. First there still remained a small class of urgently-needed goods that were admitted free of duty.[2] Secondly, a number of imports were taxed at special rates, including sugar (25 per cent.), fish, liquors, salt, tobacco, coal, mineral oil, cotton yarn (5 per cent.), and cotton-piece goods (11 per cent.). Thirdly, certain goods, including grain and pulse and certain types of machinery, were taxed at 2½ per cent. Fourthly, a 10 per cent. duty was levied on certain types of iron and steel goods, including rails, railway plant, and rolling stock. Fifthly, a general rate of 15 per cent. was levied on a large number of goods, and was intended to apply to everything except luxuries and urgently needed imports; and, finally, a 30 per cent. duty was levied on luxuries such as motor cars and other vehicles, confectionery, and on some types of cutlery, hardware, and metal goods. In addition, export duties were levied on raw and manufactured jute, raw hides and skins, rice, and tea. Thus whilst in the pre-war quinquennium customs duties brought in an average annual revenue of Rs.10 crores (or 14·7 per cent. of the total revenue of the Government) in 1921–22 they brought in no less than Rs.35½ crores (or 31·4 per cent. of the total).

[1] The duty on imported cotton piece-goods was 3½ per cent., and the notorious "countervailing excise" of 3½ per cent. was levied on Indian mill-woven cloth.

[2] This included salt needed for manufacturing purposes, certain raw materials, most metallic dyes, raw cotton, wool, manures, paper-making materials, certain manufactured goods, and bullion.

The acknowledged change in fiscal policy, however, came after 1922, as a result of the report of the Indian Fiscal Commission of that year, which recommended a policy of "discriminating protection."

By this phrase it is meant that duties may be levied to protect Indian industries that possess "natural advantages," cannot develop without initial protection, but which should eventually be able to hold their own in competition with the products of other countries, without Governmental aid. In order to decide which industries fulfil these conditions, and to make specific recommendations, a Tariff Board has been set up, with the duty of investigating the various claims put forward for protection.

The first industry whose claim for protection was investigated, was the steel industry. This resulted in the Steel Industry (Protection) Act, of 1924, which granted protective duties on various types of steel and of steel goods (averaging some 33⅓ per cent. *ad valorem*) together with bounties on the production of steel rails and fishplates. These duties almost immediately proved insufficient, largely because of the rise in the exchange value of the rupee, so that further bounties were granted at the end of 1924, and were renewed, at a reduced rate, in the autumn of 1925.

In the autumn of 1926 the Tariff Board reconsidered the whole question, in view of the expiry of the Steel Industry (Protection) Act in March, 1927. As a result of its report an Act was passed in March, 1927, replacing the Act of 1924. According to this Act a basic duty was placed on steel, varying according to the precise nature of the steel, and an additional duty was placed on steel of non-British origin. In practically all cases the "basic" duties are less than those imposed by the Act of 1924, but the additional duty in many cases brings up the total duty on Continental steel to a higher level than in 1924. The basic duties are to remain unaltered for seven years, but the additional duties are liable to alteration without reference to the legislature.

Applications for protection have been referred to the Tariff Board from a number of industries,[1] but in no other case than that of steel has an industry of first-class importance been

[1] Including the paper and paper pulp, printers' ink, cement, boots and shoes, and magnesium chloride industries.

concerned, and protective duties have not been granted. The only exception to this general statement is the application of the cotton mill industry for protection in 1926, which resulted, in August 1927, in the imposition of a protective duty on certain counts of yarn.[1]

On the other hand, the much resented "countervailing cotton excise" was suspended in 1925, and finally repealed in 1926. This makes the existing duty of 11 per cent. on cotton piece-goods more protective than previously to Indian products. In addition, in some cases, the import duties on certain articles that function as the raw materials of certain Indian industries have been reduced, in order to lower the cost of production in India.

In effect a system of relatively high "revenue" duties, with a protective influence in certain cases, has been adopted in India as a result of the War, in addition to which the principle of protection has been accepted, but has so far been put into practice only with regard to steel goods and certain types of cotton yarn.

6. The Trade of Ceylon.

The foreign trade of Ceylon consists essentially of the exchange of plantation and other tropical products that are in great demand in the West, for food (mainly Indian rice), cotton clothing, and coal and oil. Ceylon is, therefore, far more dependent than India on imports of necessities, whilst her exports are largely "specialities" of which she herself consumes but small quantities. Colombo is the great port-of-call and bunkering port on the route between Suez and Australia and the Far East, so that the total shipping entered and cleared in Ceylon is almost as great as that entered and cleared in all the ports of India. Almost 97 per cent. of the total shipping of Ceylon enters and clears at Colombo, so that for all practical purposes the trade of Colombo may be taken as synonymous with the trade of Ceylon.[2]

[1] Cf. p. 92, above. Since the above was written a demand from the mineral oil industry has been refused (cf. p. 97), and the Tariff Board has recommended protection for the match industry (cf. *Times*, Sept. 1, 1928).

[2] In 1925 the total net tonnage of vessels entering and clearing in Ceylon amounted to 19·2 million tons, whilst that of Colombo was 18·6 millions. The only other ports that engage in foreign trade are Galle and Trincomalee.

The tonnage of vessels calling at Colombo solely to obtain coal or liquid fuel for bunkering purposes is registered separately from that of vessels that actually carry on trade with Colombo, and bunker fuel is not included amongst Ceylon's imports and exports.[1] Ceylon has no coal or oil of her own, and has to import all that is needed for bunkering purposes, as well as for internal use. Hydro-electric power is, however, now being developed in West Ceylon.

The total value of Ceylon's imports of merchandise in 1925 amounted to Rs.35,09 lakhs, and of her exports to Rs.47,30 lakhs.[2] Even allowing for a net import of specie valued at Rs.94 lakhs, this leaves Ceylon with a surplus of exports of Rs.11,27 lakhs. This surplus, like that of British India, can be mainly accounted for by Ceylon's political and commercial connections with the United Kingdom.

In 1925 Ceylon's principal imports were as follows :— [3]

(i) Rice . . . . . Rs.9,66 lakhs.

This is imported mainly for the consumption of the Indian coolies who work in the tea and other plantations, and who refuse to eat Ceylon rice, which they allege is lacking in sustaining power. It is remarkable to what an extent Indian emigrants in all parts of the world cling to Indian rice as their main foodstuff.

(ii) Cotton and cotton goods . . Rs.2,83 lakhs.

Ceylon has no cotton mill industry, and, indeed, has practically no factories or large-scale industries (apart from the plantation industries). She obtains part of her imports of cotton goods from Lancashire, part from South India.

(iii) Mineral oil . . . . . Rs.2,26 lakhs.

This includes the liquid fuel supplied to steamers, and comes mainly from Borneo and Persia.[4]

[1] The tonnage of vessels entering only to bunker at Colombo amounts to about 1½ million tons per annum. (Entrances and clearances 3 million tons.) In 1925 the bunker coal and liquid fuel brought to Colombo and re-exported was valued at Rs.2,31 lakhs (cf. Table VII, p. 242).

[2] Owing to the much smaller totals involved in Ceylon than in Indian trade, the figures are here given in lakhs instead of in crores.

[3] Cf. Table VII.

[4] There is a discrepancy here between the figures given in the *Memorandum on the Balance of Payments and Foreign Trade Balances*, 1911 *to* 1925, from

(iv) Coal, for internal use . . . . Rs.1,76 lakhs.

This comes mainly from Natal (which supplied on private account 274,000 tons in 1925), British India (204,000 tons), and the United Kingdom (141,000 tons). In addition the Government imported 104,000 tons from British India and 36,000 from Natal.

(v) Rubber . . . . . Rs.1,53 lakhs.

Colombo is the great market for South Indian rubber, which is eventually re-exported.

(vi) Fertilisers . . . . . Rs.1,27 lakhs.
(vii) Refined sugar . . . . . Rs.1,26 ,,

This comes mainly from Australia and the United Kingdom.

(viii) Fish . . . . . Rs.80 lakhs.
(ix) Motor-cars and lorries . . . Rs.74 ,,

These come mainly from Canada, the United Kingdom, and the United States.

In the same year (1925) Ceylon's main exports were as follows :—

(i) Tea . . . . . Rs.19,96 lakhs.
(ii) Rubber (excluding re-exports) [1] . Rs.16,99 ,,
(iii) Coconut products . . . . . Rs. 7,79 ,,
(iv) Cinnamon and arecanuts . . . Rs. 72 ,,
(v) Plumbago [2] . . . . . Rs. 29 ,,
(vi) Cacao . . . . . Rs. 23 ,,
(vii) Citronella oil . . . . . Rs. 22 ,,

Tea is grown inland, in the highlands, rubber on the western slopes of the hills, cacao in one or two special areas in the highlands and on the west, and coconuts fringe the coast, especially on the west.[3]

The value of all the principal items of import and export, except of plumbago and cacao, has increased considerably

which Table VII is prepared, and those given by the Ceylon Blue Book for 1925. The latter gives the value of imports of petroleum products for internal use as only Rs.1,03 lakhs, which with the Rs.90 lakhs supplied to steamers gives a total of Rs.1,93 only.

[1] Including re-exports, the total value of rubber exported was Rs.18,50 lakhs.

[2] Or graphite.

[3] Cf. Fig. 6, p. 11.

since 1913.[1] In particular, exports of tea and rubber have increased out of all proportion to the increase in prices.

Ceylon obtains the bulk of her imports from British India and the United Kingdom.[2] From the British Empire as a whole she obtained 79·2 per cent. of the total in 1925, but this was a decline in comparison with 1913, when the figure was no less than 85·9 per cent. In 1926, the figure again fell, *i.e.* to 75·7 per cent. This decline can be attributed almost entirely to the decrease in imports from the United Kingdom, whose share in Ceylon's total import trade fell from 29·1 per cent. in 1913 to 22·2 per cent. in 1925, and 22·0 in 1926. The share of British India actually increased (from 46 to 48·4 per cent.) during the same period, but declined slightly, to 43·7 per cent., in 1926. As we have already seen, Ceylon obtains rice, cotton-goods, coal, and rubber from India, and cotton-goods, coal, sugar, motor vehicles, and miscellaneous manufactures from the United Kingdom. It will be noted that Ceylon is a good market for the staple products of several of the Dominions and Colonies, for instance, for Canadian motors, Natal coal, Australian sugar, and Borneo petroleum.

On the other hand, the Empire (apart from the United Kingdom) is not important as a market for Ceylon's main products. The United Kingdom is Ceylon's best market, taking no less than 39·5 per cent. (as compared with 45·5 per cent. in 1913) of the total in 1925, and 42·6 per cent. in 1926, followed by the United States, which took no less than 29·9 per cent. of the total in 1925, and 27·3 per cent. in 1926. British India does not require Ceylon's staple products, and took only 2·2 per cent. of her total exports in 1925, and 1·5 per cent. in 1926. Ceylon's tea goes to a very large number of countries, and is not, like Indian tea, almost entirely concentrated in the British market. Nevertheless the United Kingdom usually takes about two-thirds of the total (*e.g.* 141·6 million lbs. in 1926, out of a total export of 213·1 millions—a record figure). Australia and the United States are the next best markets, and considerable quantities also go to New Zealand, Canada, and Egypt. The rest is divided amongst a very large number of countries, scattered throughout the whole world. The various coconut products and spices are also distributed amongst a large number of countries, but British India is the main

[1] Cf. Table VII. [2] Cf. Fig. 18, p. 99.

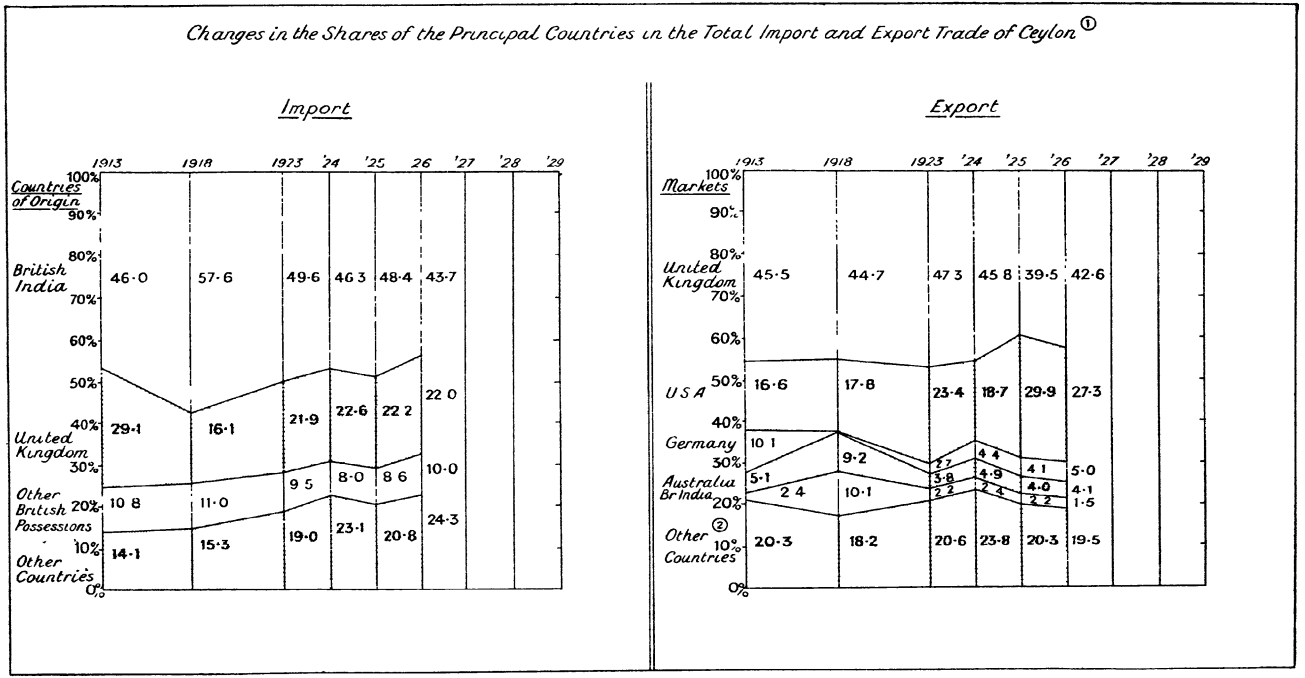


FIG. 18.—Changes in the Shares of the Principal Countries in the Trade of Ceylon.

(1) Cf. Colonial Reports. Including coin and bullion, but excluding re-exports.

(2) "Other countries" includes some British possessions in the case of exports, as the latter cannot be given separately owing to incomplete figures and changes in classification.

market for arecanuts, which are universally utilised as a masticatory in the form of "pan supari" in that country. The United States is the chief market for Ceylon rubber, taking 81·6 million lbs. out of 131·8 millions exported in 1926. The United Kingdom and the Philippine Isles are the main markets for cacao, and the United Kingdom for plumbago.

The tariff system of Ceylon is directed towards bringing in revenue, not at affording protection. Both *ad valorem* and specific duties, as a rule at quite low rates (averaging possibly some 5½ per cent.), are levied on a large number of articles, and under an Ordinance of 1922 all articles not included in these schedules pay a duty of 10 per cent. *ad valorem*. Specific export duties are levied on most of the staple products, such as tea, rubber, coconut products, and cacao.[1]

[1] In 1925 plumbago was exempted from the payment of any export duty for five years (*Handbook of Commercial and General Information for Ceylon*, 1927, p. 145.)

CHAPTER IV

THE TRADE OF MALAYA, THE EAST INDIES, PERSIA, IRAQ AND BRITISH EAST AFRICA

1. The Trade of British Malaya and of British Borneo.
2. The Trade of the Dutch East Indies.
3. The Trade of Persia and Iraq.
4. The Trade of British East Africa and of Mauritius.

1. The Trade of British Malaya and of British Borneo.

Although British Malaya is divided into three separate parts for political purposes,[1] geographically and economically it forms a single unit, and the trade statistics are now published for British Malaya as a whole.[2] For our purpose it will be convenient to consider British Malaya as a unit, in the first place, and then to distinguish the outstanding characteristics of the trade of each of the three political divisions.

In 1926 the value of the total imports of merchandise into British Malaya amounted to $1,003·8 millions,[3] and that of the exports to $1,262·5 millions. Allowing for a net import of bullion and coin of $35·4 millions, there was a surplus of exports of $223·3 millions.

The trade of British Malaya, like that of British India (and, in fact, of most commercial countries), experienced war dislocations, a post-war boom, a crisis and a depression, but

[1] Cf. Chap. I, p. 12. Note that the various units which comprise the Straits Settlements, Federated, and Non-Federated Malay States, respectively, are not all contiguous.

[2] Cf. Table IV, p. 239. Imports and exports are now published for the whole of British Malaya, excluding the mutual trade between the Straits Settlements, F.M.S., and the Non-Federated Malay States. The exports and imports attributed to each political division in these particular returns, do not, therefore, represent the products or consumption of foreign goods of each of those divisions, but merely the exports or imports of their ports, and are not reproduced in Table IV.

[3] The Straits dollar is stabilised at 2*s*. 4*d*. sterling.

owing to the situation of the country and to the fact that its trade comprises a large number of articles for which demand has recently rapidly increased, its recovery has been relatively quick, and certain lines of trade have expanded greatly in volume (as well as value) since before the War. The total trade in 1926 actually equalled in value that of the boom year of 1920, in spite of the decline in prices.

Owing to the attractions of Singapore as an entrepôt and as a market for the produce of the East Indies, the same commodities are found to a great extent amongst both the principal imports and the principal exports.

The principal imports for 1926 may be classified as follows [1] :

(i)	Food, drink, and tobacco, including in particular rice, tobacco, milk, dried fish, and sugar	$311·7 millions.
(ii)	Rubber (mainly para rubber) . . .	$178·0 ,,
(iii)	Petroleum products	$108·6 ,,
(iv)	Cotton yarn and manufactures . .	$66·0 ,,
(v)	Tin ore	$62·5 ,,
(vi)	Iron and steel goods	$28·8 ,,
(vii)	Oilseeds, nuts for oils, etc.	$28·5 ,,
(viii)	Vehicles	$25·8 ,,
(ix)	Chemicals, drugs, dyes, etc. . . .	$22·2 ,,
(x)	Machinery	19·6 ,,
(xi)	Coal (for internal use)	$9·5 ;,

Of these the rubber, petroleum products, tin ore, and oil-seeds, etc., mainly come to Singapore in order to be re-exported, in some cases after preparation or refining, sometimes after merely changing hands.[2] The foodstuffs, cotton goods, and tobacco are partly consumed in Malaya, partly redistributed to neighbouring areas ; whereas the iron and steel goods, chemicals, coal, and machinery are mainly retained for internal consumption.

The most striking feature of the import trade of recent years has been the great expansion of rubber imports, especially in the rubber " boom " year of 1925. The export figures reflect the same facts, which are discussed more fully below.[3]

[1] Cf. Table IV.
[2] Goods merely transhipped are not included in the returns.
[3] Cf. Chap. VI, s. 2.

There has also been a marked increase in imports of machinery and motor vehicles, especially of commercial vehicles. On the other hand, there appears to be a tendency for imports of piece-goods to decline, although imported yarn is increasing. This, it has been suggested,[1] may be due to the natives' growing habit of spending more on " cinemas and taxi-drives," and less on clothing. There is thus a tendency for the coarser native cloth, woven with imported yarn, to replace the finer quality imported piece-goods.

The main exports in the same year (1926) can be classified as follows :—

(i)	Rubber	$727·2 millions.
(ii)	Tin (refined)	$185·5 ,,
(iii)	Food, drink and tobacco, including rice, arecanuts, dried and salted fish, tobacco and canned pineapples . .	$147·7 ,,
(iv)	Petroleum products	$70·3 ,,
(v)	Oilseeds, nuts, etc.	$47·6 ,,
(vi)	Cotton yarn and manufacturers . .	$22·8 ,,

These include the main products of British Malaya, *i.e.* rubber, tin, coconut products (especially copra), arecanuts, and canned pineapple ; many re-exports of the produce of the East Indies ; and British Indian and Western products such as foodstuffs, cotton goods and tobacco, which are redistributed from Singapore.

The canning of pineapples, which is mainly in Chinese hands, is one of Malaya's chief industries, and the number of cases exported has increased threefold since 1907.[2] The United Kingdom obtains 80 per cent. of her canned pineapples from Malaya. In 1926 all the principal canneries (*i.e.* those of Singapore, Johore, and Klang) amalgamated to form the " Singapore United Pineapple Packing Company," so that large-scale organisation is much to the fore in this industry.

The most striking feature of the trade of Malaya is the extent to which it reflects the high degree of specialisation of production that prevails in the Federated and Non-Federated Malay States. British Malaya depends to an exceptional extent

[1] Cf. " Trade and Engineering Supplement " of the *Times*, May 21, 1927.
[2] Cf. " Trade and Engineering Supplement " of the *Times*, May 21, 1927. The number of cases increased from 400,000 in 1907 to 1,250,000 in 1926.

upon imported necessities, including a large proportion both of its foodstuffs and of its clothing. The Malays still carry on self-sufficing agriculture, but the large alien population depends for the bulk of its food on imports. Rice (from India) is imported for the Indian and Chinese coolies; sugar (from Java) for the whole population; sterilised and condensed milk for the Europeans and Chinese respectively; canned foodstuffs of all sorts for the Europeans; tea for the whole alien population; and livestock and meat for the Europeans (and others). As in Ceylon, there is no large indigenous textile industry,[1] and cotton clothing is mainly imported from Lancashire and British India. Practically the whole of the plant, machinery, utensils, packing materials, etc., needed by the Plantation and Mining Industries is imported, mainly from beyond Suez, as is also everything needed for transport and communications, whether by rail or road, and a large number of miscellaneous manufactures. In return for these necessaries, apart from re-exports, British Malaya exports the one or two staple products only; *i.e.* rubber, tin, and copra (and other coconut products). These are mainly produced in the Federated Malay States, although minor quantities of the same articles also originate in the Non-Federated States.[2]

It is interesting to compare with these total figures those for the Straits Settlements alone.[3] The latter are very similar to those for Malaya as a whole, except that they include all exports to and imports from the Federated and Non-Federated States,[4] and exclude the relatively small number of goods exported from, and imported by, ports situated in the Federated and Non-Federated States. Such a comparison shows clearly how large a proportion of the total trade of Malaya passes through the Straits Settlements, and gives a better idea of the volume of the exports of produce of the F.M.S. than do the trade returns for the latter that include only the trade of F.M.S. ports.[5] In fact, as we shall see later when examining the port statistics, the combined trade of Singapore and

[1] We have already noted that imported yarn is woven by hand into coarse cloth in Malaya.

[2] Cf. Fig. 8, p. 15.

[3] Cf. Table V, A, p. 240.

[4] *I.e.* including land frontier as well as overseas trade.

[5] The volume of the exports of F.M.S. produce is roughly indicated by subtracting the imports of rubber, tin, etc. into the Straits Settlements from the exports.

Penang approximates to the trade of the whole of British Malaya.

A third set of figures may also be considered with advantage, *i.e.* those giving the *overseas* trade of the Straits Settlements.[1] These exclude all land frontier trade, but include re-exports of the produce of other parts of British Malaya, and imports of goods ultimately forwarded to the rest of the

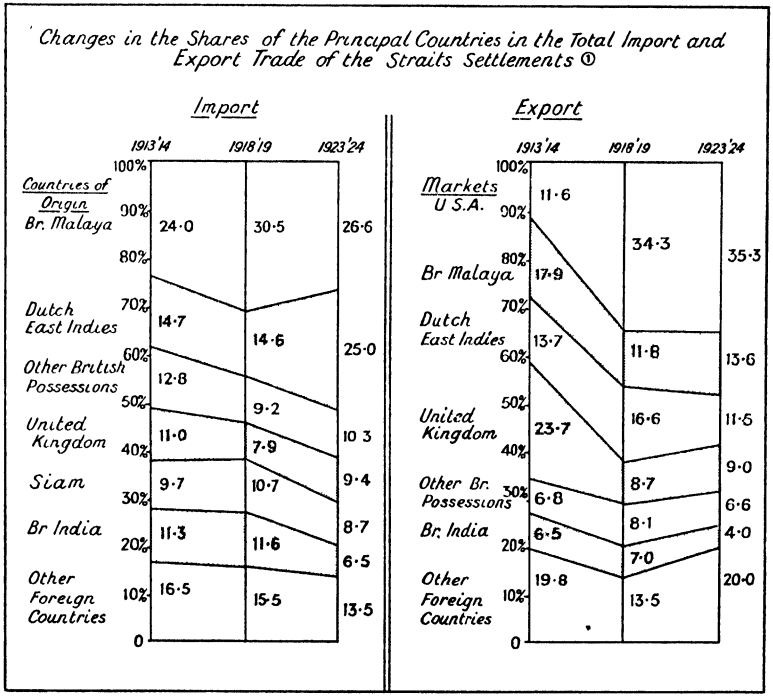


FIG. 19.—Changes in the Shares of the Principal Countries in the Trade of the Straits Settlements.

(1) Including coin and bullion, but excluding inter-settlement trade. Unfortunately 1923–24 is the last year for which complete figures are available. For later years the percentages of the trade with British India, the rest of Malaya and the Dutch East Indies are not given (cf. Colonial reports). The more recent figures that are available are quoted in the text. Cf. Chap. IV, p. 106.

Peninsula. These again show what a large proportion of the total trade of Malaya passes through the ports of the Straits Settlements.

An estimate of the quantity of the principal exports of the

[1] Cf. Table V, B, p. 240.

F.M.S. is given in the Annual Colonial Reports. In 1925 of the 316,000 tons of para rubber exported from British Malaya (including re-exports of Dutch rubber) about 205,000 originated in British Malaya as a whole,[1] and 107,000 in the F.M.S. In 1926 exports of para rubber from the F.M.S. amounted to about 161,000 tons. In 1925 out of 79,000 tons of tin exported from British Malaya (including re-exports), 45,900 originated in the F.M.S. and the same quantity was also exported in 1926.[2]

The distribution of the trade of the Straits Settlements may therefore be taken as representing that of British Malaya as a whole, as well as illustrating the relative value of the trade of the Straits with the F.M.S. and Non-Federated States on the one hand, with that of the East Indies on the other hand.[3]

In 1923–24[4] the Straits Settlements received 26·6 per cent. of her total imports from the rest of British Malaya, and 25·0 per cent. from the Dutch East Indies. That is, she now acts as an entrepôt for almost as many goods from the Dutch East Indies as from the F.M.S. and Non-Federated States. Before the War, on the other hand, she received 24 per cent. of her total imports from the rest of British Malaya, and only 14·7 per cent. from the Dutch East Indies. From other British Possessions, in 1923–24, the Straits Settlements received 16·8 per cent. of her total imports (including 6·5 per cent. from British India) and 9·4 per cent. from the United Kingdom. These shares have declined since 1913–14, in which year she obtained no less than 24·1 per cent. from other British Possessions (including 11·3 per cent. from British India), and 11·0 per cent. from the United Kingdom. In 1926 the share of the United Kingdom had declined still further, *i.e.* to only 8·6 per cent.[5] It is difficult to relate these shares of the total import trade to actual quantities of goods, as no calculation has been made allowing for price changes, but it appears from shipping figures that in all probability by 1923–24 the size of

[1] Cf. Chap. VI, p. 160.

[2] These figures are taken from the Colonial Report for the F.M.S. for 1926. Separate figures are not given for copra.

[3] Cf. Fig. 19, p. 105.

[4] Unfortunately this is the most recent year for which complete figures on this basis are forthcoming.

[5] Cf. Colonial Report 1926–27, which gives the value of the trade of the Straits Settlements with a number of countries, but not with the Dutch East Indies or British India, etc.

the total trade of the Straits Settlements had about regained its pre-war level, so that changes in the shares of different countries in the total trade at that date may be taken as also indicating roughly changes in absolute trade. It therefore appears that the quantities of imported goods from the United Kingdom, British India, and the rest of the Empire had by 1923–24 slightly declined since 1913–14, whereas the quantities of imports from the Dutch East Indies had greatly increased. Imports from the rest of British Malaya remained much at the same level. This latter fact accords with the present position of the rubber and tin industries, in which increased production has recently been checked owing to the post-depression tendency towards over-production.[1]

Turning to the export trade we find that the Straits Settlements finds its principal market in the United States, which in 1923–24 took no less than 35·3 per cent. of the total, as compared with only 11·6 per cent. in 1913–14. The second best market was the rest of British Malaya, which accounted for 13·6 per cent. of the total (as compared with 17·9 per cent. in 1913–14). Then came the Dutch East Indies (taking 11·5 per cent. in 1923–24 as compared with 13·7 per cent. in 1913–14), the United Kingdom (9 per cent. compared with no less than 23·7 per cent. in 1913–14), and other British Possessions (including British India), which took 10·6 per cent. as compared with 13·3 per cent. in 1913–14. The most important change, therefore, is the replacement of the United Kingdom by the United States as the principal market for the exports of the Straits Settlements. In 1926–27 the share of the United States remained at about the same level as in 1923–24 (*i.e.* 35·0 per cent.), whereas that of the United Kingdom had declined to only 8·1 per cent.[2]

In British Malaya, as in India, the bulk of the foreign trade is concentrated on the one or two principal ports.[3]

In 1925 about 68·3 per cent. of the total overseas trade of British Malaya passed through Singapore, 17·4 per cent. through Penang, and 2·8 per cent. through Malacca ;[4] thus

[1] Cf. Chaps. VI and VII.

[2] Cf. Colonial Report 1926–27.

[3] Cf. Fig. 14, pp. 58, 59, which illustrates the size and nature of the trade of the ports of the Indian Ocean.

[4] The bulk of the remainder passed through Port Swettenham and through the ports of islands such as Labuan, which are politically and statistically

in all 88·5 per cent. of the trade of the Peninsula passed through these three ports.

Singapore owes its enormous entrepôt trade partly to its magnificent position on the Straits of Malacca, partly to its attractions as a market for native-grown produce of the East Indies,[1] and partly because it possesses excellent up-

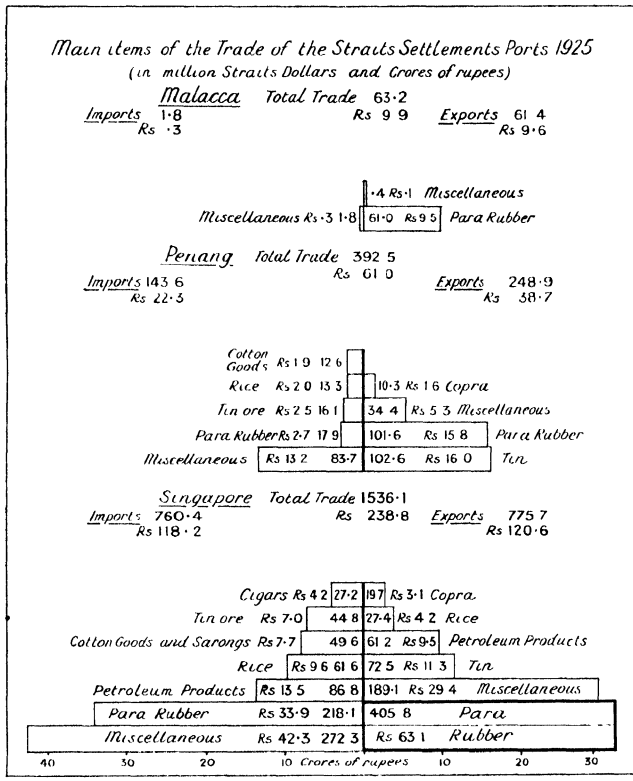


FIG. 20.—Principal Items in the Trade of the Straits Settlements Ports.

to-date tin refineries. It is the great distributing centre for Western and Indian produce to Malaya and the Eastern Archipelago, the great market for petroleum products, native rubber, copra, and other miscellaneous produce, and the great tin refining and marketing centre. Singapore is, for

included with the Straits Settlements. Separate figures are not available for Port Swettenham.

[2] Cf. Chap. I. p. 21, where it is pointed out that the Dutch have concentrated their attention upon the great European staples of the East Indies.

instance, the great market for much of the produce of Eastern Sumatra, whilst Billiton and Singkep send practically the whole of their tin-ore to be smelted at Singapore. As the main items of the trade of Singapore, and the direction of its trade correspond very closely with those of the Straits Settlements as a whole, it is unnecessary to consider them separately.[1]

Singapore, with its distinctly international type of trade, attracts vessels of every nationality, and more than fifty different lines of sea-going steamers call regularly. British vessels do not predominate to anything like the same extent as they do at Colombo and at British Indian ports.

The trade of Penang and Malacca [2] consists mainly of the imports of goods to be consumed in the Peninsula and of the export of F.M.S. products. Penang has also some entrepôt trade, which is, however, negligible in comparison with that of Singapore. Some years ago much money was expended by the Government on constructing a new harbour at Prai on the mainland opposite Penang, but the mouth of the harbour silts up so quickly that it was found to be far too costly to keep it dredged, and the whole project has proved an expensive mistake.[3]

In addition to strictly "foreign" trade, Singapore, Penang, and Malacca have a large coastal trade, not only with ports of the F.M.S. and of the Non-Federated States, but also with each other. The following table illustrates the size of this coastal trade in comparison with foreign trade.

PERCENTAGE OF THE TOTAL TRADE (FOREIGN AND COASTAL) OF EACH PORT CARRIED ON WITH

	(*a*) Malay and the British East Indies.	(*b*) Intersettlement Ports.	Total of (*a*) and (*b*).
Singapore [4] . . .	42·8 per cent.	3·2 per cent.	46·0 per cent.
Penang	39·5 ,,	5·2 ,,	44·7 ,,
Malacca	36·3 ,,	37·7 ,,	74·0 ,,

Port Swettenham is the only port of the F.M.S. that carries on any overseas foreign trade,[5] but Port Weld, Teluk Anson, and Port Dickson all have considerable coastal trade.

[1] Cf. Fig. 20, p. 108 and Table V.
[2] Cf. Fig. 20, p. 108.
[3] Cf. Report on Prai River Railway Wharves. Cmd. 2703 (1926).
[4] The actual value of Singapore's trade is as follows: with the Dutch East Indies, $480·0 millions; with Malay States, $288·0 millions; with British Borneo, $46·1 millions; and Intersettlement trade, $61·1 millions.
[5] This trade is similar in character to that of Malacca.

The Non-Federated States have as yet only a comparatively small foreign trade, and have no important ports. They have, however, great potentialities of development in the future, when communications have been improved, along similar lines to the F.M.S.[1]

The resources of British Borneo, like those of the Non-Federated Malay States, have only just begun to be developed. Large-scale production of rubber, timber and coconuts has, however, begun.[2] Owing mainly to its position *en route* for the Far East, British Borneo has several important ports-of-call, including Sandakan, Brunei, and Kuching.[3]

Of these Sandakan, with its fine harbour, is far the most important, as it is also on the route between Australia and the Far East. Moreover, abundant supplies of good steam coal are available for shipping, being obtained from a colliery at Similpopan, in the south-east of British North Borneo. Cutch (a tanning extract prepared from the bark of certain mangrove trees) is manufactured at Sandakan, and there is also a prosperous fishing industry. The timber resources of British Borneo are particularly valuable.

British Malaya is a "free trade area," and the rapid development of Singapore may be attributed largely to its attractions as a "free port." Export duties are, however, levied for revenue purposes on the principal exports, including tin and rubber.[4]

2. The Trade of the Dutch East Indies.

In 1925 the total imports of the Dutch East Indies amounted to 824·1 million guilders,[5] and the exports to 1,793·0 million guilders.[6] Both lines of trade show a large increase in comparison with 1913, although no revaluation on the basis of pre-war prices has been worked out, so that it is difficult to judge how far the increase should be attributed to price

[1] Cf. Chap. I, pp. 14, 15.
[2] Cf. Fig. 9. p. 20, and Fig. 25, p. 163.
[3] Cf. *Commercial Travelers' Guide to the Far East*, p. 204.
[4] An additional, "protective," duty is also levied on tin-ore exported from the F.M.S. unless the export is conducted under guarantee that the ore is to be smelted in the Straits Settlements, Australia, or the United Kingdom (cf. Kelly, *Customs Tariffs of the World*, 1925, p. 250).
[5] The parity value of the guilder (also called florin, or gulden), is 1*s.* 8*d.*
[6] Cf. Table VI, p. 241.

changes. There is no doubt that the quantity as well as value has increased.[1] Total imports and exports on the basis of value, have tended to increase steadily since the world-wide commercial crisis of the early nineteen-twenties, although they have not quite overtaken those of the post-war boom years, swollen as these latter were by excessively high prices. On the whole, the trade figures reveal prosperity and expansion. Allowing for a net import of specie valued at 13 million guilders, there was, in 1925, a surplus of exports on private account of no less than 955·9 million guilders, which is relatively even greater than that of British India.[2] Java and Madura accounted for 64·6 per cent. of the total imports of merchandise on private account in 1925, and for 47·2 per cent. of the exports, as compared with 68·7 per cent. and 51·6 per cent. in 1913.

Java is the great producer of sugar and other plantation products, and also produces petroleum. The East Coast Residency of Sumatra is also an important plantation area, especially for rubber, and Sumatra is the principal source of petroleum in the Dutch East Indies. Dutch Borneo produces petroleum and tobacco, whilst many of the smaller islands, particularly the Moluccas, produce valuable spices. Banka, Billiton,and Singkep are renowned as the "Tin Isles."[3]

In 1925 there were eight main classes of imports into the Dutch East Indies[4]:

(i) Cotton goods	207·7	million guilders.
(ii) Rice	74·8	,, ,,
(iii) Provisions	63·2	,, ,,

[1] In dealing with plantation and mineral products in Chaps. VI and VII, actual quantities will be considered, and it will appear that there has been a large increase in the quantity of the staple exports. The Index number of wholesale prices (including import and export articles), shows an increase of 66 per cent. for 1925 and 59 per cent. for 1926, as compared with 1913 (cf. *Statistical Abstract for the Netherlands East Indies*). The value of imports of private merchandise had increased just on 89 per cent. in 1925, and of exports by no less than 192 per cent.

[2] The importance of the Eastern Indian colonies to Holland is fully recognised. Dr. Zimmerman, formerly High Commissioner of the League of Nations in Austria, recently wrote that "the keeping of the East Indies is for Holland a matter of life and death," as she could not maintain her position in Europe "without assurance of the revenues obtained from the Eastern Colony and from Dutch enterprises there" (cf. *Times*, Nov. 23, 1927).

[3] It is unnecessary to include a fuller description of the produce and exports of the various Dutch islands at this point, as, being either plantation or mineral produce, they are dealt with fully in Chaps. VI and VII.

[4] Cf. Table VI.

(iv)	Iron and steel and manufactures thereof	50·9	million guilders.
(v)	Machinery and tools	46·1	,, ,,
(vi)	Cigars, cigarettes, and tobacco	40·7	,, ,,
(vii)	Motors, tyres, and parts	25·3	,, ,,
(viii)	Fertilisers	18·0	,, ,,

These are evidently the same type of goods which are imported for consumption in British Malaya. The rice, as in Malaya, is imported for the immigrant Indian and Chinese coolies, and fertilisers bulk large chiefly on account of the Javan sugar industry. The expansion of imports of motors, tyres and parts is very marked, especially since the conclusion of the War. In 1913 they were valued at only 7·4 million guilders. During the post-war boom they rose to a peak in 1920, then declined, but have again risen rapidly and steadily.[1]

Nine main classes of exports could be distinguished in the same year (1925)[2]:

(i)	Rubber	582·2	million guilders.
(ii)	Sugar (from Java)	367·2	,, ,,
(iii)	Petroleum products (including kerosene)	173·0	,, ,,
(iv)	Tobacco	110·4	,, ,,
(v)	Copra	102·3	,, ,,
(vi)	Tin and tin ore	77·8	,, ,,
(vii)	Tea	74·3	,, ,,
viii)	Coffee	68·2	,, ,,
(ix)	Spices	30·9	,, ,,

These are all either plantation or mineral products, but are more varied in their nature than those of British Malaya.[3]

The most outstanding feature of these figures is the rise of rubber to first place, surpassing in 1925, for the first time, exports of sugar. Since 1913 the value of rubber exported has increased more than twenty-four times: *i.e.* from 23·8 million guilders to 582·2 millions. The most rapid rise has been since the introduction of the restriction scheme in

[1] In 1920 imports of motors, tyres, and parts were valued at no less than 46·7 million guilders. In 1923, the figure was 12·9 millions, which rose to 25·3 in 1925.

[2] Cf. Table VI.

[3] Cf. p. 103.

November 1922, as will be explained below.[1] It is true that in 1925 the value of the sugar exported was less than in preceding years, but even had it remained at the 1924 level it would have been far surpassed by rubber. It should be noted that the decline in the value of the sugar exported was due to the fall in price, and that the quantity exported actually rose from 1·8 million to 2·0 million metric tons. The striking fact remains that in 1925 rubber accounted for almost one-third of the total value of all exports from the Netherlands East Indies. Apart from rubber, the total value of all exports was less in 1925 than in 1924.

In 1925 Holland supplied 18·3 per cent. of the total imports, Singapore 15·3 per cent., the United Kingdom 15·2 per cent., Japan 11 per cent., Germany 7·2 per cent., and the United States 6·5 per cent.[2] The chief changes since 1913 are the great decline in Holland's share (which was 33·2 per cent. in 1913),[3] and the considerable increases in the shares of Japan, the United States, and of Germany. As the total trade of the Dutch East Indies has increased in bulk since 1913, these changes indicate a great expansion of trade with the three latter countries. More trade than in 1913 now appears to be carried on directly, rather than *via* Holland, with countries such as Germany, whilst there has undoubtedly been a large addition of new trade with countries such as Japan and the United States. Holland remains the principal supplier of miscellaneous manufactures, including machinery, railway materials, alcoholic drinks, and cigars and cigarettes.

Singapore is the best immediate market for the produce of the Dutch East Indies, and accounted for no less than 26·7 per cent. of the total export trade in 1925, as compared with 17·6 per cent. in 1924, and 17·9 per cent. in 1913. Here, again, rubber may be a partial explanation. Holland took 15·5 per cent. of the total exports in 1925, the United States 14·1 per cent., British India 8 per cent., the United Kingdom 6·8 per cent., China and Hong Kong 5·6 per cent., and Japan 5·3 per cent. The outstanding changes since 1913 have been the great decline in the share of Holland (which was 28·2 per

[1] Cf. Chap. VI, s. 2.
[2] Cf. Fig. 21, p. 114.
[3] The share of the United Kingdom also declined, but only slightly. Cf. Fig. 21, p. 114.

Changes in the Shares of the Principal Countries in the Total Import and Export Trade of the Dutch East Indies.[1]

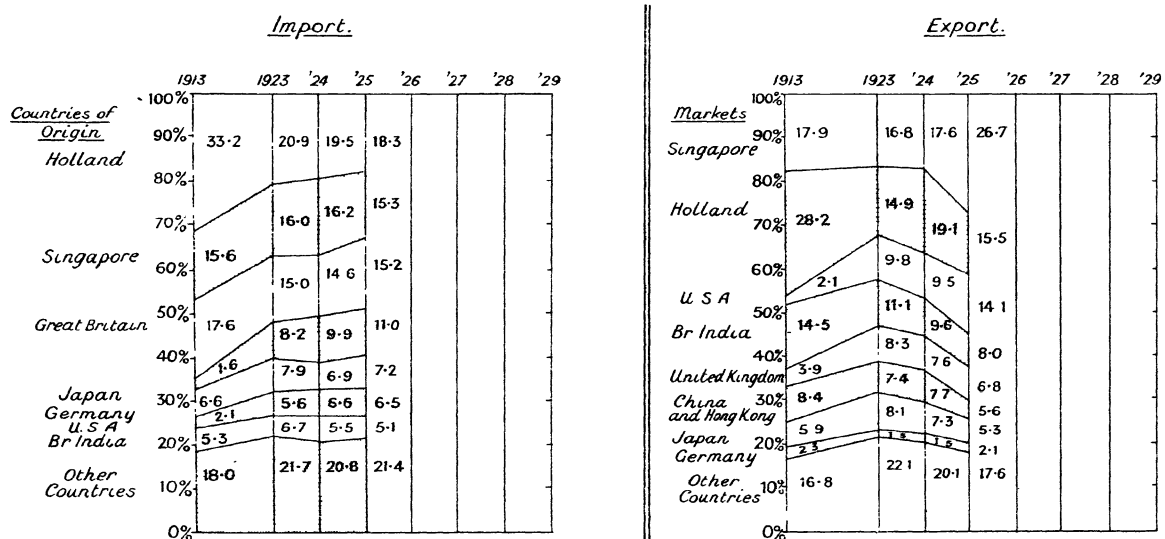


FIG. 21.—Changes in the Shares of the Principal Countries in the Trade of the Dutch East Indies.

(1) Excluding Government stores and coin and bullion.

cent. in 1913), a decline in the share of British India, a moderate increase in the share of the United Kingdom, and an enormous increase in that of the United States.

These figures once again illustrate the predominance of Singapore as an entrepôt, and the increasing importance of the United States as a market for plantation produce.

Holland is far and away the most important market for copra, and comes second to the United Kingdom as a market for tea, and second to France for coffee, but is far down on the list for sugar, which goes mainly to British India, Japan, and Hong-Kong, and for rubber, the bulk of which goes to Singapore, the rest going chiefly to the United States and the United Kingdom.

The principal Javanese ports are Soerabaja, Tandjong Priok (the port of Batavia), and Semarang, all of which are situated on the Northern coast.[1] These three ports not only serve the rich hinterland, but also act to some extent as collecting centres for the produce of the Outer Provinces. The Java Sea is the connecting link between all the East Indian islands, and in it the trade routes between the West and the Far East cross and recross. Were not North Java over-shadowed by Singapore, it would stand out as a very great entrepôt for the trade between the East and the West.

Soerabaja and Semarang export large quantities of sugar, tobacco, and rubber, and Tandjong Priok exports tin, rubber, tea, pepper, and coffee.

The most important ports of the Outer Provinces engaged in foreign trade are Belawan Deli (a considerable exporter of rubber), Palembang (situated some way from the coast, but on a navigable river), and Padang, in Sumatra [1]; Macassar [2] in the Celebes; and Banjermasin and Pontianak in South-West Dutch Borneo. Balikpapan and Tarakan (on the East of Dutch Borneo) are also important oil-bunkering ports.

In addition to foreign trade, the islands have a large "coastal" (*i.e.* inter-island) trade. It is difficult to estimate the total exchange of merchandise between all the various islands and ports, but the following table illustrates the main

[1] Cf. Fig. 9, p. 20, and Fig. 14, pp. 58, 59.

[2] Macassar has a splendid natural harbour and is an important port of call, but has no productive hinterland.

lines of trade between Java and Madura, on the one hand, and the Outer Provinces on the other hand (in 1926)[1]:

Merchandise sent from Java to the Outer Provinces. (In million guilders.)		Merchandise imported into Java from the Outer Provinces. (In million guilders.)	
Textiles (all kinds)	25·4	Tin	39·8
Cigars, cigarettes and tobacco	17·6	Coffee	9·8
Sugar	11·1	Pepper	8·4
Provisions (including rice and milk)	10·3	Kerosene	7·8
Motor cars and parts	7·1	Other petroleum products	6·1
Iron and steel goods	5·6	Gold	5·3
Petroleum products	4·9	Coal	4·4
Haberdashery	4·9	Gambier	4·2
All other goods	44·2	Fish	4·1
		Copra	2·0
		All other goods	37·3
Total	131·1	Total	129·2

It is obvious that Java supplies the Outer Provinces with large quantities of manufactured goods and provisions (many of which are re-exports), and with sugar, whilst the Outer Provinces send in return their mineral and plantation products, many of which are eventually re-exported. Sumatran products account for no less than 94·4 million guilders out of the total of 129·2 millions.

In the coasting trade of the islands Dutch shipping has almost a monopoly.[2] In 1926 almost 80 per cent. of the (net) shipping tonnage was Dutch,[3] 11 per cent. was British, 2 per cent. was Japanese, and 2 per cent. German. In the foreign trade, however, British vessels are not far behind those of Holland,[4] the figures being as follows: 45 per cent. under the Dutch flag; 35 per cent. under the British flag; 6 per cent. under the German flag; 4 per cent. under the Japanese flag; and 2 per cent. under the American flag. The total net tonnage of entrances and clearances in the foreign trade was 52 million net metric tons, and in the coasting trade 251·2 millions.[5] Thus the total net tonnage of vessels calling from other ports in the Netherlands East Indies was

[1] The figures include specie, and Government as well as private trade.

[2] Interport trade is prohibited to the vessels of any country that, like the United States, reserves its own coastal trade. The figures include shipping of all types, and the repeated voyages of the vessels.

[3] Including vessels owned in Holland and in the Netherlands East Indies.

[4] Largely because of the large trade with Singapore.

[5] Including repeated voyages by the same vessels.

very much greater than those from foreign ports, although the actual trade transacted by them was much less.

The tariff system of the Dutch East Indies is designed mainly to raise revenue. Import duties are low, seldom rising above 12 per cent., except for luxuries, but brought in a net revenue of 76·7 million guilders in 1926. Considerable revenue (amounting in 1926 to 14·9 million, for export duties) is also raised either from export duties or special taxes on staple products.

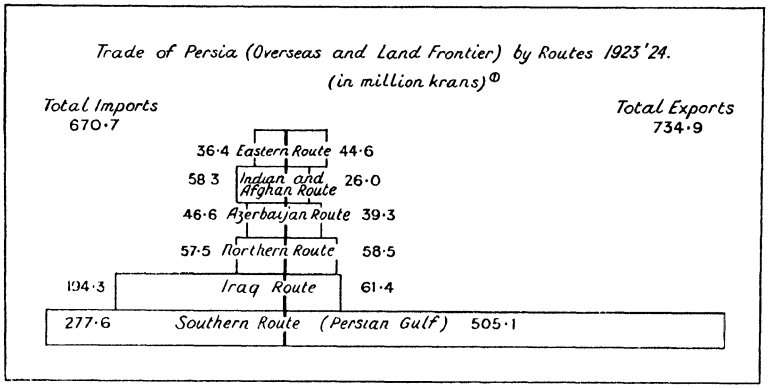


FIG. 22.—Trade of Persia (Overseas and Land Frontier), 1923–24

(1) For statistical purposes the rate of exchange was 45 krans to the pound sterling.

3. The Trade of Persia and Iraq.

The registered foreign trade of Persia includes much land frontier, as well as overseas trade. About 74 per cent. of the total goes by the Iraq and Persian Gulf routes, and thus enters into the trade of the Indian Ocean.[1]

The total imports entering Persia by the Iraq and Persian Gulf routes were valued in 1923–24 at 471·9 million krans, or some £10·4 millions.[2] Exports by the same routes amounted to 566·5 million krans, or £12·6 millions. The total trade

[1] Cf. Fig. 22, p. 117. The "Iraq Route" indicates the route between Basra and Kasr-i-shirin (just over the Persian boundary), *via* the Iraq railway (cf. Fig. 10, p. 28). 1923–24 is the last year for which these figures are available. The total trade shown in Fig. 22 is less than that given in Table VIII, presumably owing to deficiencies in recording.

[2] The gold exchange value of the kran is not fixed. In 1923–24 the rate of 45 krans per pound sterling was adopted for official purposes (cf. Table VIII, note (1)).

(1,038·4 million krans, £23·0 millions, or Rs. 34 crores) was thus about equivalent to that of British East Africa, and not much more than half that of Ceylon, in the same year.

It is impossible to estimate accurately what proportions of the principal items of trade traverse the Iraq and Persian Gulf routes. It is therefore necessary to consider the main imports and exports of Persia as a whole, and then to consider the direction of trade.

The principal imports in 1926–27 were as follows : [1]

(i)	Cotton yarns and piece-goods . .	245·6 million krans.
(ii)	Sugar	124·0 ,, ,,
(iii)	Tea	69·7 ,, ,,
(iv)	Mineral oil	31·4 ,, ,,
(v)	Woollen and mixed (woollen and cotton) goods	27·7 ,, ,,
(vi)	Machinery and tools	24·0 ,, ,,

Almost 60 per cent. of the total imports were manufactured goods, chiefly clothing, and 36·1 per cent. were food and drink, chiefly sugar and tea, making 96·0 per cent. in all. The type of goods imported has changed but little since pre-war days, and in spite of the increase in values it is doubtful whether there has been any increase in volume. Imports of machinery and tools have increased rapidly during the last few years, and mixed tissues of cotton and artificial silk have also become considerable.[2] In some years imports of cereals and rice are important.[3]

Exports, if the shipments of the Anglo-Persian Oil Company are included, usually considerably exceed imports. For instance, in 1926–27 total exports were valued at 1,104·0 million krans (£22·7 millions), whilst total imports were valued at 786·8 million krans (£16·2 millions), giving a surplus of exports of 317·2 million krans (£6·5 millions).

The principal items of export in 1926–27 were as follows :

(i)	Mineral oil	654·4 million krans.
(ii)	Carpets	122·6 ,, ,,

[1] Cf Table VIII, p. 243.

[2] Imports of mixed cotton and artificial silk were valued at 12·7 million krans in 1926–27.

[3] These were valued at 43·5 million krans in 1925–26, but fell to 11·6 millions in 1926–27.

(iii)	Opium	96·1	million krans.
(iv)	Raw cotton	56·5	,, ,,
(v)	Fruit (fresh and dried)	32·0	,, ,,
(vi)	Wool	23·4	,, ,,
(vii)	Rice	20·5	,, ,,
(viii)	Cotton piece-goods	3·5	,, ,,

Of the exports 86·6 per cent. were raw materials (or mainly raw materials) and foodstuffs, whilst mineral oil (and its derivatives) accounted for 59·2 per cent. of the total. The export trade has been revolutionised, since 1914, owing to the great expansion of the oil industry, and to the general activities of the Anglo-Persian Oil Co., which now expends over three million pounds per annum in the country, and contributed over one and a quarter millions to the Persian treasury by way of royalties alone in 1926–27.[1] Practically the whole of the oil exported, except for some consumed in British India and the Straits Settlements, passes through the Suez Canal.[2]

The direction of Persia's trade has changed fundamentally since 1913–14.[3] In that year Russia accounted for almost 60 per cent. of the total and the British Empire for only 21 per cent., whereas in 1923–24 the position had been almost reversed, the British Empire accounting for 57 per cent. and Russia for only 18 per cent. of the total. In 1926–27 the share of the British Empire had fallen to 49·7 per cent., whilst that of Russia remained at just over 18 per cent.

Nevertheless Russian trade with Persia has revived considerably during the last few years (at least as compared with the nadir reached during the War), although the revival was severely checked during 1926–27 by a Russian embargo on all imports from Persia, except cotton. This embargo arose out of the transport crisis of 1925 which resulted from the grain shortage in Persia in that year. Bad harvests in both 1924 and 1925 led to a threat of famine in Northern Persia, and all means of transport were requisitioned by the Government, which also purchased large quantities of grain from Russia and India. The Russian Government objected to the methods adopted by the Persian Government, and imposed

[1] Cf. *D.O.T. Report on Persia*, 1925 *to* 1927 (1928), p. 15.
[2] Cf. Chap. VII, s. 2.
[3] Cf. Fig. 23, p. 120.

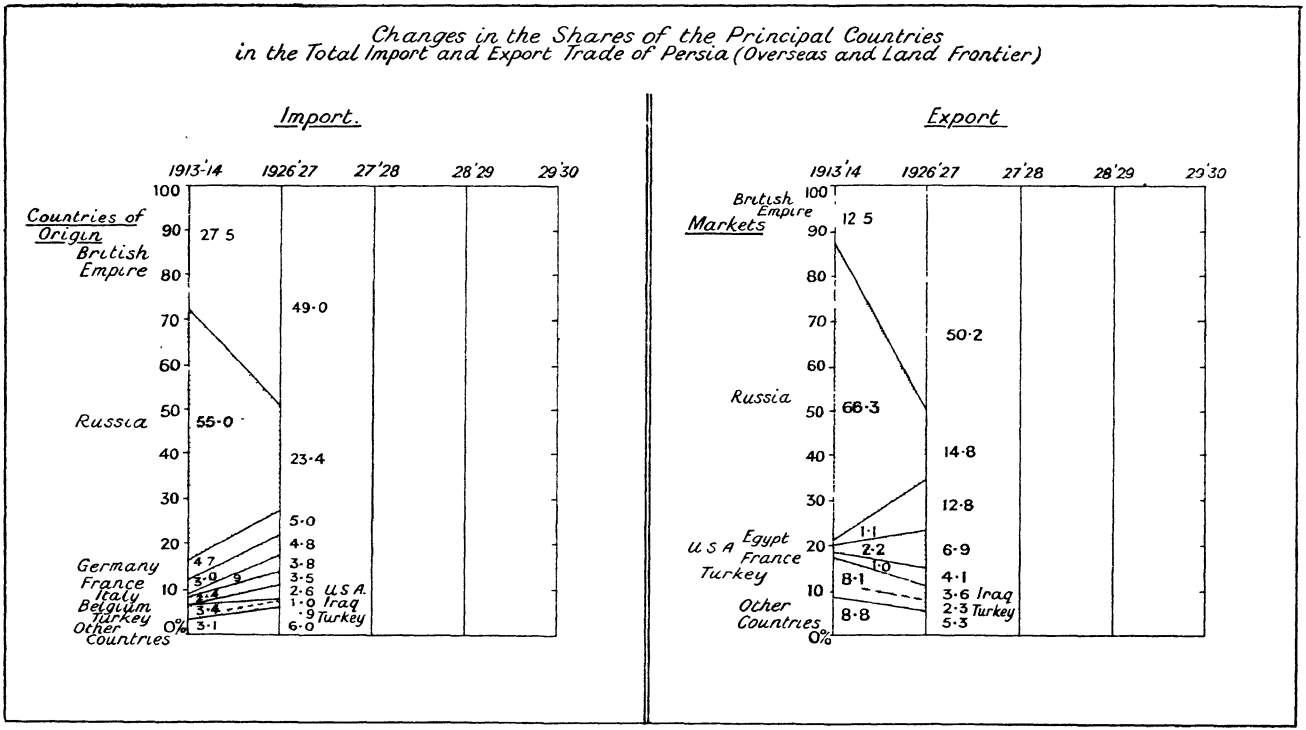


FIG. 23.—Changes in the Shares of the Principal Countries in the Trade of Persia.

the embargo mentioned above. The embargo was never very strictly applied, and soon gave way to a system of export licences issued by the Soviet Embassy in Persia, which continued until a Russo-Persian Trade Agreement was signed at the end of 1927.[1]

Persian trade with Egypt and with the United States has increased very rapidly since 1913–14, and the trade with France has also risen, although to a lesser extent. Trade with Germany now shows a rapid upward tendency, but has not yet attained its pre-war level.

It appears that British traders are beginning to lose their post-war position of supremacy in Persia, mainly in consequence of increased competition from the Continent. In the Persian, as in most Eastern markets, price, not quality, is the determining factor, on account of the poverty of the majority of the consumers, and in this respect British goods tend to be at a disadvantage. In addition, the prevailing tendency in Persia to demand long credits acts against the British trader.

It is impossible to estimate precisely the direction of Persian trade, as many goods that are merely transhipped at Indian ports are entered as either coming from or destined for India. The bulk of these transhipped goods, however, represent trade between Persia and some part of the British Empire, particularly the United Kingdom.[2] The bulk of Persia's imports of cotton yarn and piece-goods and of tea, and considerable quantities of sugar, coal and miscellaneous metal goods, come from the British Empire. In return Persia supplies mineral oil, carpets, fruit, lambskins and raw cotton.

Russia normally supplies considerable quantities of sugar, some petroleum, and lambskins, cotton piece-goods and raw silk. In return she takes opium, raw cotton, dried and fresh fruit, rice and tea.

The United States sends motors [3] and certain types of mineral oil, and receives carpets, benzine, furs and skins, opium, and dried fruit.

[1] Cf. *D.O.T. Report on Persia*, 1925–1927 (1928), p. 17, and *Times*, Sept. 11, 1928. The total trade of Persia (expressed in gold) declined in 1926–27 as compared with 1925–26, and the only bright spot in a year of depression was the increase in the exports of the Anglo-Persian Oil Company.

[2] Persia offers a progressive market for British woollens, knitted goods, artificial silks, clothing, machinery, rubber goods, and foodstuffs and preserves (Cf. *D.O.T. Report on Persia*, 1925–27, p. 19).

[3] The United States entirely dominates the motor trade with Persia.

Germany supplies Persia with sugar, haberdashery, synthetic dyes, beer and spirits, and paper goods, in return for mainly lambskins and furs.

Two facts must be borne in mind in explanation of certain rather puzzling features of both the direction and nature of Persian trade. These are that Persia is still at a very primitive stage of general economic development, and that in consequence, her products are still on the whole crude and of inferior quality; and that, in particular, Persia's transport facilities are extremely backward.

These facts explain why it is that although Persia's mineral oil deposits are now being fully exploited in the south, they have as yet been hardly touched in the north, where there has not yet been an expert mineral survey; and how it is that the lubricating oil and grease of the United States can be sold in Persia in competition with, or even in preference to, the indigenous products. Again, whilst North Persia is rich in rice, which it exports over the land frontier, the South imports rice from overseas at a price that is actually higher than that obtained for the exported Persian rice! To export the northern rice over the bad roads to the south would be still more expensive.

Merchandise is conveyed over the very rough Persian roads by caravan, "fourgon," [1] or motor-lorry, and so severe is the treatment *en route* that many consignments arrive badly damaged, and almost bereft of covering.[2] The time occupied in transit is also excessive. From Bushire to Tehran takes a caravan seven to eight weeks, a "fourgon" twenty-five to forty days, and a motor lorry four to six days. In spite of the recent increase in motor traffic,[3] the greatest economic need of the country is still improved communications, though it is doubtful to what extent railways [4] on the one hand, or improved roads on the other, would best meet the case.[5]

The tariff system (which includes a general duty averaging

[1] A country cart.
[2] Cf. *D.O.T. Report*, 1923-24.
[3] Cf. Chap. I, p. 26.
[4] We have already seen (Chap. I, p. 27), that there are at present only two short stretches of railway lines, *i.e.* the direct line from Tabriz to the Caucasian railway, and the line from Duzdap across the Indian frontier. Cf. Fig. 10, p. 28.
[5] One great difficulty with regard to railway construction is the absence of local supplies of wood suitable for sleepers.

10 to 15 per cent., and higher duties on luxuries), together with the surtax on sugar and tea, and the compounded road duty on all imports,[1] also undoubtedly tend to restrict trade unduly.

The principal Persian ports on the Gulf are Mohammerah (with a total trade, in which exports greatly predominate, of 249·7 million krans in 1923–24), Abadan (212·9 millions), Bushire (176·3 millions), Bandar Abbas (62 millions), Ahwaz (45·6 millions), Kishnu (18·0 millions), Singah (13·8 millions), and Charban (4·0 millions).[2]

The Persian Gulf is now served by a number of steamship lines, some of which ply direct from Suez, and others *via* Indian ports. The British Indian Steam Navigation Company, for instance, runs services between Bombay and Karachi, on the one hand, and a large number of Gulf ports, on the other hand. At Bombay these services connect with the P. & O. There is a direct monthly service between London and Basra, and between Bremen and Basra. The Mogul Line and the Persian Gulf Steam Navigation Company also run cargo vessels between India and the Gulf.

The trade of Iraq has made rapid strides since the War, and, in particular, the country has provided an increasingly good market for British and British-Indian products. As a large proportion of Persia's imports and exports take the Iraq route, care must be taken to distinguish between the gross trade of Iraq and the trade in the products of, and in goods retained within, the country. The following figures illustrate this point [3] :—

	Imports into Iraq.		Exports from Iraq.	
	Net.[4]	Gross.	Net.[4]	Gross.
1924.	Rs.9,11 lakhs.	Rs.19,12 lakhs.	Rs.4,19 lakhs.	Rs.14,20 lakhs.
1925.[5]	Rs.9,37 ,,	Rs.17,27 ,,	Rs.5,11 ,,	Rs.12,09 ,,

The large excess of imports over exports of merchandise is accounted for by the British Government's imports for the use of the British military and civil forces in Iraq, and by the considerable expenditure of pilgrims, tourists, missions, and benevolent societies in Iraq.

[1] Cf. Chap. I, pp. 25, 26.
[2] Cf. Fig. 14, pp. 58, 59.
[3] Cf. *Report on Iraq to the League of Nations*, 1925.
[4] *I.e.* excluding goods from, or destined for, Persia.
[5] The figures for 1925 are approximations only.

The principal articles imported for domestic consumption in 1925 were [1]:

(i)	Textiles, chiefly cotton goods . .	Rs.3,14 lakhs.
(ii)	Grain, pulse, and flour	Rs.1,41 „
(iii)	Sugar	Rs.1,33 „
(iv)	Oils	Rs. 73 „
(v)	Tea	Rs. 52 „
(vi)	Wood and timber	Rs. 34 „
(vii)	Liquors and wines	Rs. 21 „

The principal articles of domestic export in 1925 were :

(i)	Dates	Rs.2,05 lakhs.
(ii)	Wool	Rs. 80 „
(iii)	Hides and skins	Rs. 39 „
(iv)	Textiles	Rs. 37 „
(v)	Intestines.	Rs. 31 „
(vi)	Metals and ores	Rs. 12 „
(vii)	Grain, pulse, and flour	Rs. 11 „
(viii)	Sugar	Rs. 10 ,

Persia is the main market for the piece-goods, cereals, and other foodstuffs of Iraq, and only one product, *i.e.* the date, is of importance in the trade of the Indian Ocean.

The bulk of the overseas trade of Iraq passes through Basra, but separate port trade statistics are not available.

The tariff system of Iraq is designed mainly for revenue purposes, and goods in transit obtain a drawback of seven-eighths of the duties.[2]

4. The Trade of British East Africa and of Mauritius.

The total foreign trade of the various territories of British East Africa is shown in the following table :— [3]

[1] *Report to the League of Nations on the Administration of Iraq in* 1926 (1927). Cf. Table IX, p. 244.

[2] Cf. *Report to the League of Nations on the Administration of Iraq in* 1926 (1927).

[3] *D.O.T. Report on the Trade and Commerce of East Africa,* 1926 *and* 1927, p. 5. These and all other trade figures quoted include trade between the various territories.

IMPORTS.

(In pounds sterling.)

	Private merchandise.		Government imports.	
	1925.	1926.	1925.	1926.
Kenya and Uganda	8,628,035	7,680,577	3,717,344	1,390,749
Tanganyika . .	2,785,431	3,039,208	420,980	558,716
Zanzibar . . .	1,998,420	1,749,416	64,847	88,329
Nyasaland . .	593,628	23,566	878,255	25,162
North Rhodesia .	1,303,062	1,699,874	14,845	25,808

EXPORTS.

(In pounds sterling.)

	Domestic exports.		Re-exports.	
	1925.	1926.	1925.	1926.
Kenya and Uganda	7,821,844	6,010,386	1,754,309	1,834,295
Tanganyika . .	2,901,315	3,025,978	261,681	235,597
Zanzibar . . .	2,283,329[1]	1,332,904	—[1]	451,216
Nyasaland . .	543,488	646,574	58,356	65,758
North Rhodesia .	383,695	433,890	49,302	56,492

From the point of view of the trade of the Indian Ocean we are chiefly concerned with the trade that passes through the Ocean ports of British East Africa, and will therefore confine ourselves to a short review of the main features of the trade of Kenya and Uganda, Tanganyika, and Zanzibar.[2]

The figures given in Table X [3] indicate that, mainly owing to inadequate transport facilities, the trade of these areas is still extremely limited, and may be said to be of potential, rather than of actual, importance. Commercial development, on a modern scale, began only during the first decade of the century (*i.e.* after the construction of the Uganda and Tanganyika railways [4]), and was (naturally) much disturbed during the War. Distinct progress has been effected during the last three or four years, and the falling off in 1926, as compared with 1925, must be attributed to temporary, seasonal factors, not to any permanent tendency towards decline.

An analysis of the trade of Kenya, Uganda, and Tanganyika reveals those features that are usually found in agricultural

[1] Re-exports are not given separately for 1925.

[2] The small overseas trade of Nyasaland and North Rhodesia is mainly conducted through Beira and the ports of South Africa.

[3] P. 245.

[4] Cf. Chap. I, p. 35.

countries at a primitive stage of economic organisation, but in process of development owing to the introduction of mechanical transport and more scientific agricultural methods.

Thus imports consist mainly of manufactures, the principal item being cotton piece-goods, and include considerable and increasing quantities of mineral oil, iron and steel manufactures, machinery and building materials (the last especially into Tanganyika). The large number of goods imported on Government account indicate that great attention is being paid to public works of various descriptions. In Tanganyika "foodstuffs" forms an important class of imports, and rice is still imported in large quantities into Kenya and Uganda (both from India and from Tanganyika) but the local manufacture of sugar in the latter territories is progressing satisfactorily, and imports are decreasing.

In 1925 the principal exports of Kenya and Uganda were as follows : [1]

(i) Raw cotton	£4,694,339
(ii) Coffee	£963,920
(iii) Sisal hemp	£517,608
(iv) Maize	£416,964
(v) Hides and skins	£358,953
(vi) Carbonate of soda	£213,680
(vii) Simsim	£69,371
(viii) Copra	£35,915

It thus appears that, with the exception of carbonate of soda, which is dredged from natural deposits at Lake Magada and of which the value has increased by leaps and bounds since 1913,[2] all the chief exports of Kenya and Uganda are agricultural produce.

Raw cotton, which originates almost entirely in Uganda, where it is mainly grown on small native holdings,[3] heads the list and accounts for about 60 per cent. of the total exports of domestic produce of both territories taken together. The quantity exported has increased more than sevenfold since

[1] Figures are quoted for 1925, at this point, as complete figures for 1926 are not yet available. Cf. Table X (*a*).

[2] Cf. Table X (*a*). The decline in 1926 was due to temporary factors, including a disastrous fire at the works.

[3] Cf. Chap. I, p. 37. In 1925 Kenya produced only 3,836 centals out of a total of 785,849. (*Colonial Report on Kenya*, 1925, p. 14).

1913; *i.e.* from 26,821 to 196,462 bales (of 400 lbs.) in 1925. Tanganyika normally exports about 25,000 bales, Nyasaland some 5,000, and North Rhodesia only about 500.[1]

The following estimate of the ultimate destination of the raw cotton exported from British East Africa as a whole, after allowance has been made for transhipments and re-exports at various centres, particularly Bombay, is of interest [2]:

	1924.	1925.	1926.
Total (bales)	139,140	221,674	208,484
To Great Britain . .	62,465	136,290	92,505
To Japan	43,403	32,279	30,566
To India	30,000	41,162	74,550

The decline in the total exports of cotton in 1926 as compared with 1925 may be attributed to adverse weather conditions in Uganda, and it does not appear—as was at one time feared—that lower cotton prices have affected the area planted.[3] From the above table it appears that both Great Britain and India tend to consume increasing quantities of Uganda cotton. Japan tends to draw more and more on the American crop.[4]

With the extension of railways in Uganda [5] a much larger area suitable for cotton-growing should be brought within the range of profitable marketing. In time this should help to augment Imperial supplies of raw cotton, but it will be many years before Uganda provides more than a small fraction of Lancashire's total consumption.

The British Cotton Growing Association has done excellent work in Uganda, and it is encouraging to note that in 1923 a Uganda Cotton Association was formed with the object of consolidating and improving marketing methods, particularly the marking of bales and the standardisation of contracts. It has been suggested that this Association should affiliate to the Liverpool Cotton Association.[6]

[1] It is reported that cotton is unlikely to become an important crop in Nyasaland. In North Rhodesia it is mainly produced by Europeans, but is still grown only to a very limited extent. Cf. *D.O.T. Report on the Trade of British East Africa for* 1926–27.

[2] Cf. *D.O.T. Report on the Trade of East Africa for* 1926–27, p. 27.

[3] "Planting returns for the 1926–27 season were on the whole at the level of the preceding year" (*D.O.T. Report on the Trade of British East Africa for* 1926–27, p. 25).

[4] Cf. Chap. IV, p. 89.

[5] Cf. Chap. I, p. 37.

[6] Cf. *Colonial Report on Kenya*, 1925, p. 26.

The other principal items of export from Kenya and Uganda with which considerable progress has been made since 1913 are coffee, sisal hemp, and maize, all of which are mainly, though not entirely, grown by white settlers.[1] Exports of coffee increased from 17,000 to 177,000 cwts. between 1914 and 1925; sisal hemp from 11,416 to 13,623 tons between 1913 and 1925; and maize from 226,000 to 1,219,000 cwts. during the latter period. On the other hand, exports of simsim and copra—both native crops—have not appreciably increased.[2] Although forced labour, for the benefit of white settlers, is no longer permitted in British East Africa,[3] there is no doubt that the demand for native labour on the estates of white settlers makes it difficult, at least in Kenya, for native production to increase. The undoubted scarcity of labour in Kenya has affected native more than European production, as on European farms organisation has been improved so as to reduce the need for labour. Throughout British East Africa the so-called "dual policy" is now in force, namely, that which "gives the native the option to work either as a producer in his Reserve or as an employee on estates."[4] It is difficult to judge how far this policy and the prevailing system of taxation involve pressure on the native to become a labourer on European estates.

In Tanganyika the scarcity of labour is not such a formidable problem as in Kenya, probably partly because less land has been alienated to European settlers,[5] and the export of most native crops has increased considerably since 1913.[6] The principal exports are sisal hemp, coffee, cotton, groundnuts, and copra. It is satisfactory to note not only that trade has increased satisfactorily under the mandated rule of Britain in Tanganyika, but that the Amani Research and Experimental

[1] Cf. Chap. I, p. 37.

[2] Comparable figures with regard to the quantities of hides and skins exported are not available, but there has been a considerable increase in values. Cf. Table X (*a*).

[3] The Government still has the right to use forced labour for essential public works and services.

[4] *D.O.T. Report on the Trade of British East Africa*, 1926–27, p. 38.

[5] The total area of land alienated to white settlers in Kenya at the end of 1925, was 5,745,607 acres, of which 5,229,432 were leasehold, and 516,175 freehold. For existing rules with regard to the alienation of land in Tanganyika, see the *Report to the League of Nations* 1926–27, p. 50.

[6] Cf. Table X (*b*).

Institute, which carried out such first-class work under German rule, is (at last) to be re-opened.[1]

Zanzibar exports mainly cloves and copra, the former being by far the more valuable. In 1926, 55,946 cwts. of cloves, 39,550 cwts. of clove-stems, and 15,679 tons of copra were exported. It appears, however, that Zanzibar's erstwhile monopoly of the world market in cloves is now threatened, owing to the synthetic production of clove oil substitutes, and that the Zanzibar industry will have to be reorganised if it is to hold its own.[2]

The great bulk of the trade of Kenya and Uganda passes through Mombasa (with its port, Kilindini), which handled 640,000 shipping tons of cargo in 1925. Mbaraki [3] is the only other Ocean port concerned with foreign trade, and handled 92,777 shipping tons in the same year. Seven regular lines of steamers from Europe serve Mombasa, whilst Norwegian and Japanese lines call occasionally. Regular coastal services are maintained by two lines.

The trade of Tanganyika is less concentrated. Dar-es-Salaam deals with over 70 per cent. of the total, Tanga with some 20 per cent., and Lindi and minor ports with the remainder. Harbour improvements have recently been made at all three of the principal ports of British East Africa: Mombasa, Dar-es-Salaam, and Zanzibar.[4]

Low import duties are in force in all these territories, and in 1925 a "Customs Management Ordinance" came into force whereby a Customs Union was formed between Kenya, Uganda, Tanganyika and Zanzibar.[5] Preference cannot be given to British goods or merchants in these areas, on account of international treaty rights. It is therefore all the more necessary for British merchants to study commercial conditions closely.

It is difficult to make generalisations as to changes in the direction of the trade of British East Africa, partly owing to statistical difficulties and complications, partly owing to the abnormal state of the East African market during 1925 and

[1] Cf. *Report to the League of Nations on Tanganyika*, 1926–27, p. 45.
[2] Cf. *D.O.T. Report on the Trade of British East Africa*, 1926–27, p. 30.
[3] Like Kilindini, is on the island of Mombasa.
[4] Cf. *D.O.T. Report on the Trade of British East Africa*, 1926–27, p. 41.
[5] Previously only an informal agreement had existed between Tanganyika and the other territories.

1926, but certain facts may be noted with regard to the direction of the trade of Kenya and Uganda, and Tanganyika.

In 1926 Great Britain supplied 45 per cent., India 12 per cent., the United States 12 per cent., Holland 12 per cent., Japan 5 per cent., and Germany 4 per cent. of the imports of Kenya and Uganda. Corresponding figures for Tanganyika are: Great Britain 40 per cent., India 15 per cent., Germany 9 per cent., Holland 9 per cent., and Japan 7 per cent. Great Britain also preponderated with regard to Nyasaland and North Rhodesia, but came second to India in the import trade of Zanzibar.[1]

It is clear that Great Britain has greatly increased her share of this trade since 1913, which in the case of Kenya and Uganda was only 27·2 per cent. in the latter year. During the last few years, however, increased competition from Continental sources has been experienced, largely owing to the offer of extended credit facilities by Continental merchants. The British coal stoppage of 1926 naturally aggravated the situation. There are indications, however, that the grant of credit facilities on easy terms resulted in over-stocking and sales at unremunerative prices, and there is little reason to expect any permanent decline in the sales of British goods on this account. On the other hand, there appears to be a permanent tendency towards increased sales of motor-cars and agricultural machinery from the United States, and of agricultural machinery from Canada, which has been assisted by the recent institution of a direct shipping line from the United States to the East Coast of Africa *via* the Suez Canal.[2]

Turning to the export trade, we find that in 1925 Great Britain took 56 per cent. of the domestic exports of Kenya and Uganda, as compared with 36·2 per cent. in 1913; and India took 24 per cent. as compared with only 4·1 per cent. in 1913.

This is only what might be expected in view of the increased export of Uganda cotton, which goes in the first place mainly to Bombay.[3] Belgium stands third as a market for the products of Kenya and Uganda, followed by Germany, Japan, Italy, Holland, and the United States.

[1] Cf. *D.O.T. Report on the Trade of British East Africa*, 1926–27, p. 44.
[2] Cf. *D.O.T. Report on the Trade of British East Africa*, 1926–27, p. 35.
[3] No allowance is made in these figures for the re-export of cotton from Bombay.

The ultimate destination of the products of Tanganyika cannot be easily traced, as large quantities find an outlet *via* Kenya,[1] but it is clear that closer trade relations with Great Britain have resulted from the transfer of this territory from German to British control.

Zanzibar in 1926 conducted 21·8 per cent. of its total trade with India, 16·9 per cent. with Tanganyika, 14·0 per cent. with the United Kingdom, 11·5 per cent. with France, and 7·6 per cent. with the United States.[2]

Thus in the trade of all these territories (except Zanzibar) Great Britain holds the predominant position, India coming a good second, whilst the relative importance of Imperial trade has definitely and considerably increased since before the War.

Finally, a few words must be said about the trade of Mauritius.

The total trade of this island was valued at Rs.10,65·7 lakhs in 1925. Imports of merchandise amounted to Rs.6,16·8 lakhs, and of bullion and specie to Rs.2·4 lakhs.[3] Food, drink, and tobacco accounted for Rs.2,87·3 lakhs of the imports, including rice to the value of Rs.1,36·4 lakhs, whilst manufactures (including gunny bags, machinery, and millwork, sulphate of ammonia, and motor spirits) accounted for Rs.2,79·6 lakhs.

Exports amounted to Rs.4,24·4 lakhs in the same year, and re-exports to Rs.22·1 lakhs. The only important export is sugar, which amounted in 1925 to no less than 192,304 (metric) tons, valued at Rs.4,12·5 lakhs. The United Kingdom is by far the most important market for this sugar, taking 135,988 tons in 1925, and Mauritius is the largest supplier of sugar to the United Kingdom within the Empire. Before the War British India was of almost equal importance as a market, taking an annual average of 128,800 long tons in the pre-war quinquennium, but has now sunk to insignificance, especially since the United Kingdom increased the preference on sugar produced within the Empire in 1925. Hence, whereas in 1925–26 India took 19,100 (long) tons, in 1926–27 she took only 100 tons.[4]

In 1925 total exports from Mauritius to the United Kingdom

[1] Cf. *D.O.T. Report on the Trade of British East Africa*, 1926–27, pp. 51 *et seq.*

[2] Cf. Colonial Report, 1926.

[3] This represents a net import of bullion and specie, as none was exported.

[4] Cf. *Annual Review of the Trade of India*, 1926–27, p. 22. Complete trade statistics for Mauritius for 1926 have not yet been issued.

amounted to Rs.4,44·7 lakhs, and to British India to Rs.1,23·4 lakhs. Imports from the United Kingdom amounted to Rs.1,67·3 lakhs and from British India to Rs.2,22·2 lakhs. The bulk of the trade of Mauritius is thus conducted with these two countries, the United Kingdom being the chief market for the produce (*i.e.* sugar) of Mauritius, and British India the chief supplier of imports (including rice).

The tariff system of the island is devised mainly for revenue purposes, and includes both specific and *ad valorem* duties, the latter averaging from 10 to 20 per cent. The bulk of the trade passes through St. Louis.

CHAPTER V

COMMERCIAL ORGANISATION AND THE PROBLEMS OF PLANTATION PRODUCTION

1. The Organisation of Trade and of Large-scale Industrial Production.
2. The Characteristics and Commercial Effects of Plantation Production.
3. The Labour Problem on the Plantations.

1. The Organisation of Trade and of Large-scale Industrial Production.

When the era marked by the conduct of foreign trade by monopolistic joint stock companies came to an end,[1] European traders in the various areas of the Indian Ocean for a time carried on their business as individuals, in partnership, or by means of private companies. At this time the limited liability joint stock company had not yet become the prevailing form of organisation in the West—where, indeed, it was still to a great extent actually prohibited—and thus was not at first even contemplated by the European entrepreneurs and planters who, during the first half of the nineteenth century, began to develop the resources of countries such as India, Ceylon, and the East Indies.

The difficulty of obtaining both the capital and the continuity of policy and management for businesses situated in lands far from the permanent homes of the traders and business men concerned, however, favoured joint as opposed to individual ownership and management, and led not only to the comparatively early adoption of the joint stock principle in

[1] *I.e.* in the seventeenth, eighteenth, and (in the case of India) early nineteenth centuries. The trading monopoly of the East India Company was removed finally in 1813. In 1833 the Company ceased to trade as a corporation in India.

countries, such as India,[1] that were opened-up by Europeans at this time, but also to the development of a particular form of business organisation, termed the "Managing Agent System," that is still characteristic of, and peculiar to, India, Malaya, the East Indies and China.

British Malaya was not developed commercially until after the joint stock system had become the usual form of organisation in the West, so that it was adopted there almost from the first. In the Dutch East Indies there was a period during which the Government undertook direct production and trade to a considerable extent, and also strictly controlled the private enterprise of individual European capitalists. The joint stock principle came in with the governmental decontrol of enterprise.

At the present day joint stock organisation prevails amongst European-controlled trading and industrial concerns, including the plantation industries, in all the main commercial areas of the Ocean.

In India it has also been adopted, especially since the beginning of this century,[2] by Indian capitalists, who have also favoured the "managing agent" system.

This latter system is a very important feature of commercial organisation in the East. Its central feature is that the actual management of the affairs of the companies concerned is entrusted not to persons directly employed by the companies, but to large firms already at work in the country of production (or where trade is to be carried on). The companies concerned are, as a rule, incorporated in Europe, where they also usually raise their capital,[3] and obtain the necessary

[1] It is interesting to note that European banks on the joint stock principle, with limited liability, were actually promoted in Bengal at a time (at the end of the eighteenth century) when this type of organisation was prohibited in England (cf. H. Sinha, *European Banking in India*, p. 4).

[2] The number of joint stock companies registered as at work in India (apart from the companies at work in India but registered in England or some other foreign country) has almost quadrupled since the beginning of this century. The paid-up capital of these concerns has increased sevenfold. There are now no less than thirteen groups of industries each of which includes more than 50 separate joint stock companies, and in all in 1925–26 there were 5,311 joint stock companies at work, with a total paid-up capital of Rs.2,77 crores

[3] Occasionally the companies are incorporated in the country where production or trade is to be carried on. Sometimes a large part of the capital of companies incorporated in the West is either subscribed or bought by the inhabitants of the country of production. For instance, although the bulk

concessions and carry out the necessary legal formalities before commencing work. They then make an agreement with some "agency" firm that is well known and respected in the locality where the business is to be pursued, whereby that firm undertakes to carry on the new line of trade or to manage the works or plantation.

The firms [1] which undertake the "managing agency" on behalf of these companies, usually carry on extensive trading functions, of a very varied nature, on their own account. They do not specialise in one particular line of trade, but do "general export and import trade." Similarly, they usually undertake the managing agency on behalf of a number of different types of industry. Thus, they may be managers of rubber, tea and coffee plantations, tin and other mines, and of textile and other factories.

The functions and duties of the managing agents of plantation industries may be described rather more fully by way of example. They control the finances of the firms for which they act as agents; select the individual managers or planters in charge of the estates; market the produce; and control the process and organisation of production by means of visiting agents or inspectors. Through the latter an extraordinarily efficient type of organisation and the most up to date and scientific methods of cultivation of the crops and of their preparation for the market have been extended throughout the principal plantation industries. Careful records have to be kept both of physical and meteorological conditions (such as of the rainfall) and of output, etc.; the accounts have to be kept in a special manner; and technical and scientific advice is given to, and enforced upon, the planters with regard to methods of cultivation and of preparation for the market. In addition, the managing agent firms often actually advance money to the companies that they manage, and supply them with machinery, implements, raw materials, and packing materials. The inspectors may be either experienced ex-planters or specially trained scientific experts.

In India the origin of this system is difficult to trace, but there is evidence of the germs of the system amongst European

of the jute mill industry is controlled and managed by Europeans, more than half of the capital is owned by Indians.

[1] These great firms are themselves almost always incorporated in the West.

firms in Bengal at the end of the eighteenth century. It spread with the rise of India's great export trade in bulky commodities, the establishment of the plantation industries, the foundation of the jute and cotton mill industries, and with the extension of joint stock organisation in general during the nineteenth century.[1] In British Malaya and in the Indian plantation industries it arose either when the pioneer planters, who had managed their own estates, wished to retire, and wanted to obtain efficient management and to retain some financial interest in the concern, or on the death of a planter, when (as likely as not) a joint stock company was formed to carry on the business. Nowadays the managing agent system is usually adopted in the first instance. In the Dutch East Indies the system arose with joint stock organisation towards the end of the nineteenth century when the government gradually handed over production, or the supervision of production, to private enterprise.

The system helps to solve the problem of providing continuity of policy and of management, and of securing efficient, experienced and financially reliable management by proxy for commercial businesses carried on in foreign countries by traders and entrepreneurs who do not settle permanently in the country of production. The great octopus firms prefer to undertake an agency rather than directly to promote a new enterprise, because it saves them trouble and financial risk.[2] The managing agent risks no loss of capital, receives a fee for management whatever the fortune of the concern, and stands a chance of obtaining a good commission if the concern prospers.

In British Malaya and the Dutch East Indies the system appears to be appropriate and to work well on the whole. In India it has met with much criticism, especially in the cotton mill and other non-plantation industries. The managing agent firms are accused of undue conservatism and lack of enterprise; of neglecting the interests of some (at least) of the firms that they manage [3]; and even of fraud. It is argued

[1] In India the managing agent system prevails in most large-scale industries (*e.g.* in the cotton, jute, silk, coal-mining and iron and steel, industries).

[2] We have already noted above that the newly-formed company raises the money and undertakes the necessary legal and other preliminaries.

[3] It is obvious that there must sometimes be a clash of interests between the various enterprises managed by the same agents.

that in practice the system gives autocratic control to the managing agents, who relieve the directors of responsibility,[1] and that it reduces the power of the shareholders to a minimum.[2]

It is clear that opportunities for fraudulent transactions must often occur, as the managing agents are in a position to carry out very varied transactions on behalf of the enterprises they manage, for instance in supplying them with machinery and raw materials.[3] Accusations of fraud and of mismanagement are particularly rife in the Indian cotton mill industry which, be it noted, is mainly in Indian hands. Probably the system works better in Malaya and the East Indies than in India because in the former countries there are fewer lines of trade and types of production, and hence fewer opportunities for a clash of interests, and because there is little or no rivalry between foreign and native traders and entrepreneurs, and hence less jealousy. Moreover, in India the system has led in the case of Indian firms to an excessive concentration of power in the hands of a few individuals or families. A " managing agency " is handed on as a hereditary possession from father to son, without regard to the qualifications of the latter. The directorates of many large concerns are closely interlocked, and the managing agency firms provide a considerable number of the directors. In other words, the system has had much to do with the development in India of a special and no less acute form of the problem of " trustification " so familiar in the West.

The economic effects of this form of organisation depend partly upon the details of the contract between the company and its managing agent. In the first place an annual fee for office and management expenses is universally paid, but is

[1] It has been said that the directors are often surprisingly and culpably ignorant of the position and problems of the enterprises that they are supposed to control.

[2] It should not be forgotten that a large number of these shareholders are Indians.

[3] In India it used to be possible for a firm of managing agents to transact a deal on behalf of an " undisclosed principal." If the deal yielded a profit, the managing agent pocketed it. If not, the loss could be booked to one of the companies " managed." This was prohibited in 1914 by an amendment of the Companies Act, which made it necessary to register a deal at once in the name of the principal. Apparently, however, the law is not always enforced, as the Tariff Board Report on the Indian Textile Inquiry repeats complaints on this score (p. 88).

usually so small as to be a negligible factor. In addition the managing agent receives a commission, either on output, sales, or capital—or on profits. If the commission is paid on a quantitative basis the managing agents are interested in turnover rather than in efficient, profitable management, and there is a danger of over-production. This used to be the normal system throughout the East, and still prevails throughout these areas in the plantation industries. In most other industries a commission on profits prevails. The latter system secures an identity of interests between the company and its agents, and tends to lighten the burden of costs of production during a depression.

The large-scale trading, industrial, and planting concerns in all the main areas under consideration are united in various types of voluntary associations that are capable of taking joint action for the furtherance of common aims.

In India, for example, there are (*a*) general associations, such as the Indian Tea Association (and other planters' associations) and the East Indian Cotton Association; (*b*) local associations, including chambers of commerce and local associations of persons engaged in particular lines of trade or industry; (*c*) associations of retail traders in the principal cities; and (*d*) stock exchanges.[1]

Some of these bodies, in particular the chambers of commerce, are freely consulted by the Government, and are even represented on important public bodies, such as the Council of State, the provincial legislative councils, port and improvement trusts, and municipal corporations. Similar chambers of commerce and other associations are found in Malaya and the East Indies, where (in particular) the planting and mining interests have strong associations or federations.

In the Dutch East Indies local trading associations representing wholesale interests are established at all the principal centres, such as Batavia, Semarang, Soerabaja, Bandoeng, Macassar, Medan, Padang, Palembang and Menado. There are also a number of importers, brokers, and shopkeepers' associations, and official chambers of commerce and industry which act as links between the Government and private traders.[2]

[1] In Calcutta, Bombay, and Madras.

[2] Cf. *Handbook of the Netherlands East Indies*, 1924, Chap. XI.

The overseas trade of all these countries is conducted almost entirely by foreign traders, financed by foreign exchange banks, which have established branches in many centres. Banking facilities in general are excellent in Malaya and the Dutch East Indies, and in the large commercial centres of India, but "up-country" in India they are still entirely inadequate for a first-class commercial country, and the relations between native moneylenders and bankers and joint stock banks are loose and unorganised.

In India the excess of exports over imports of merchandise is so great that special measures are necessary in order to enable importers of Indian goods to remit payments to India. Those who cannot procure trade bills entitling them to rupees in India in exchange for sterling, can purchase "Councils Bills" or "Telegraphic Transfers" [1] from the Secretary of State in London. By thus paying sterling in London, they obtain the right to rupees in India. The Secretary of State is in a position to give rupees in India in return for sterling in London, because—on account of the political and commercial connections between India and England—the Government of India has regularly to make a number of payments in sterling in England, whereas the whole of its income is obtained in rupees in India.

In the Dutch East Indies, as in India and British Malaya, the headquarters of most of the large trading and industrial firms are in Europe. These firms are not by any means exclusively Dutch, although the latter predominate on the whole. British, German, French, Japanese, and American firms all also carry on considerable trade in these islands. Most of the exporters, as in India, deal in a large number of commodities, but a few specialise; for instance, in sugar [2] or tea. The importers, on the other hand, usually specialise to some extent—for instance, in textiles or hardware. In the nineteenth century a large proportion of the exports were sent on consignment to Amsterdam, where they were sold at auction, but nowadays many goods are marketed locally.[3]

Very little internal trade is conducted by European firms, which concentrate upon and practically monopolise the foreign

[1] Telegraphic Transfers give the *immediate* right to rupees in India.
[2] The sugar companies are incorporated in Java, not in Holland.
[3] Cf. *Handbook of the Netherlands East Indies*, 1924.

trade. In India the local and coasting trade is in the hands of a large number of special trading castes whose members usually also act as moneylenders. What happens is that the village grain merchants and moneylenders advance money to the cultivators, whose crops they eventually buy, after making deductions on account of interest due on the advances. They sell the crops to middlemen in the larger towns, who in their turn forward them to the big ports from which they are exported by the great European firms.

In Malaya and the Dutch East Indies, this internal trade is carried on not by indigenous traders, but by the Chinese, who have for many centuries settled and traded in these areas.[1]

The Chinese traders have a network of buyers spread throughout the interior of these countries, who buy the crops produced or collected by the natives.[2] They may buy direct from the individual native collector or cultivator, or the natives may be sufficiently organised to bring together all the produce of one village and sell it collectively to a Chinese trader. After the collection and first sale of the village produce, the whole of the rest of the transport and marketing is invariably carried out by the Chinese. The Chinese village trader sends the produce to a larger centre, such as Kuala Lumpur, Belawan Deli (Sumatra) or Soerabaja (Java), from whence it is sent to one of the biggest ports, usually Singapore, at which it is sold to the actual exporters. The Chinese traders barter with the natives for their produce, and thus distribute all over the country the imported goods destined for native consumption, such as cotton cloth, rice, and domestic utensils.[3] Often, like the Indian traders, they also make advances to the natives.

The Chinese traders do not work individually, on their own account, but are said to be in " Kongsie " (or " Congçie ") with each other and with the Chinese exporters at the minor ports. The " Kongsie " is a peculiar form of business organisation or partnership according to which all transactions are conducted on a joint basis, that is, each member of the " Kongsie " is entitled to an agreed-upon share of the profits on each trans-

[1] Arab traders are also to be found, who specialise in the coasting trade, but are not so ubiquitous as the Chinese.

[2] Sometimes the natives merely collect wild produce, sometimes they actually cultivate the crops.

[3] Imported goods are brought by European importers to the large towns, where they are sold retail and to the Chinese traders.

action. This share varies: a trader may be entitled to a one-fifth share on one type of transaction, and one-third on another, and to perhaps one-fourth on a third.

Dutch traders have not interested themselves either in internal trade, or in the export of native produce, so that Singapore has become the great market for the native collected (or cultivated), and Chinese transported, produce of the Dutch East Indies, as well as for the produce of British Malaya and North Borneo.

What with the managing agent system and the close commercial organisation of the Chinese, much the same tendencies towards the co-ordination of control and concentration of industrial and commercial power in a few hands are at work in the Indian Ocean as in the West. The same problems emerge, although in a slightly different form.

The foregoing description of commercial organisation applies to the plantations, as well as to other types of production, but the former have played such a predominant part in the development of the trade of Malaya and of the East Indies that they demand special treatment. To this subject the following section will be devoted.

2. The Characteristics and Commercial Effects of Plantation Production.

The term "Plantation Industry" is used to denote any large-scale, highly-organised industry producing and preparing for the market (usually mainly for export), with the aid of native[1] labour, some raw material or foodstuff that is in great demand in industrialised countries. As a rule plantation industries are financed and managed by Europeans, who employ indigenous, or imported, coolie labour, but sometimes indigenous capital and management are also to be found. When similar products as are grown in plantations, such as sugar or tobacco, are cultivated on small holdings by peasant cultivators, they are not considered to fall under the heading of "plantation" products. Thus rubber produced on a large scale, under European management, is called "plantation"

[1] "Native" here is used in the sense of "non-European." The coolies are engaged partly in agricultural, partly in manufacturing or "preparatory" processes, and often the same individuals perform at different seasons sometimes agricultural, and sometimes industrial, work.

rubber, whilst if it is produced on a small scale, by native cultivators, it is called " native " rubber.

Plantation production is appropriate and profitable in most tropical and sub-tropical countries where there are a certain number of white traders or settlers, but where there is no large class of white manual labourers, as it gives scope for the use of capital and the introduction of modern, scientific methods of production, and yet enables advantages to be taken of a supply of " cheap labour."[1] In the Indian Ocean the plantation system prevails, as far as export crops are concerned, in Ceylon, Malaya, and the East Indies, and is to be found to a more limited extent in India and East Africa.

One of the first points to be noticed with regard to the plantation industries is that most of them have been developed on a large scale comparatively recently—*i.e.* either during the nineteenth century or even since the beginning of this century—usually either in hilly or forest districts with previously undeveloped resources, or in sparsely populated areas such as the Outer Provinces of the Dutch East Indies. The Javan plantations are the chief exception to this statement, and also some of the plantations occupying the lower-lying districts of South India and Ceylon. Thus as a rule the plantation industries have not replaced or even restricted the cultivation of indigenous crops, but have provided an additional occupation and source of wealth.[2]

Most of these new cultures have expanded, at certain well-defined periods, with astonishing rapidity, and this expansion has usually been intimately connected with the discovery of new uses, and therefore with the rise of a new demand, for such products in the West. These new uses have been a direct result of industrialisation in the West, which has, for instance, given rise to the demand for rubber from the motor industry, and the demand for vegetable oil for the manufacture of butter substitutes and for the lubrication of machinery.

In most cases the development of the plantation industries has been the result of conscious efforts, aided by scientific

[1] Coolie labour is extremely cheap in comparison with white manual labour (whether on the spot or in the West), but the wages paid, where labour is really voluntary, are now usually higher than can be obtained by the coolies in alternative occupations.

[2] In British East Africa plantation crops have not exactly replaced indigenous crops, but the planters have undoubtedly to some extent replaced indigenous tribes, some of which were pastoral.

methods of cultivation and preparation, which have resulted in an immense improvement in the technique of production and therefore in the quality as well as quantity of the product. The vast increase in production has been accompanied by a startling increase in competition and fall in prices, which, at times, have seriously threatened profits. As a rule these difficulties have been overcome by the discovery of still further uses for the products concerned, which have enabled the aggregate profits on increased turnover to compensate for the fall in profit per unit. At times, however—as we shall see when considering the rubber industry in particular—the price obtainable per unit has fallen to actually less than the cost of production.[1]

The pressure of competition and the danger of over-production have continuously stimulated planters and traders to discover improved and cheaper methods of production and of marketing, so that the plantation industries may certainly be reckoned among the most progressive and scientific in the world. Large profits can still be reaped, but not by planters and traders who do not move with, or even in advance of, the times.

The expansion of these plantation industries has reacted fundamentally on the colonising powers—especially on Great Britain and Holland—and to a lesser extent on all the Western industrial countries, in two main ways.

In the first place they have offered, and still offer, immense new fields for the investment of capital, and for the activity and enterprise of commercial men. Capital is needed not only for the actual plantations, which require elaborate buildings, machinery and tools of all descriptions, but also for the improvement of transport and communications. On the whole, such investments have, in the past, brought in extremely handsome profits.

In the second place they have opened up huge new areas as greedy markets for the manufactures of the West. Machines, tools, motors, motor fuel, drying, sorting, grading and packing apparatus, and chemicals for various preparatory processes, are in great and ever-increasing demand, as well as foodstuffs and clothing for the coolies and their supervisors.

Whether as exporters or importers, shippers, bankers,

[1] Cf. Appendix C, "Overproduction."

engineers, planters or as agents of European firms that look to the Indian Ocean as a market for their goods, there is undoubtedly still a great opening for enterprising Europeans in the areas of plantation production, but if they are to fulfil their functions adequately it is necessary for them to understand how to adapt themselves to conditions in the East. The technical and scientific aspect of production bulks large in the plantations, and it is also necessary to understand the peculiarities of commercial organisation and of the labour problem in these areas. Any discussion of the technical aspect of these plantation industries would obviously here be out of place, although incidental illustrations of its importance will occur in connection with the more detailed descriptions that are to be given of the sugar, rubber, and tea industries. The labour problem on the plantations, however, demands more than passing reference, and will be dealt with in the following section.

3. The Labour Problem on the Plantations.[1]

Except in Java, the bulk of the wage-labour in Malaya and the East Indies is performed by immigrant coolies. On the tea plantations of Assam, although *foreign* coolies are not employed, it is necessary to procure labour from a great distance, as the plantations are located in hilly, sparsely populated districts. In effect these coolies may be classed as "immigrants," although technically they have only moved from one district to another within their own country. The labour employed on the plantations of Ceylon—at least in the hills—consists almost entirely of South Indians.[2] Hence the labour problem has great similarities in all these areas, and the dependence upon immigrant coolies has naturally affected fundamentally the general relations between employers and

[1] This section deals primarily with plantation labour, but incidental reference is also made to other types of wage labour in Malaya and the East Indies.

[2] The Singalese cannot be persuaded to work on plantations at a distance from their own homes. This is hardly to be wondered at considering the disgraceful conditions that have prevailed in the past on many plantations. Even at the present day the infant mortality rate on plantations in Ceylon exceeds that of great urban centres such as Colombo, a truly shocking state of affairs. For instance, in 1925 the infant mortality rate was 172 for Ceylon as a whole, 235 in urban centres, 240 in Colombo, and 256 on estates. Hence, on the tea plantations (which are in the hills) South Indian coolies are employed, whilst on the rubber plantations, Singalese coolies prevail.

employed, as well as the actual form of contract and methods of payment.

The problem in the past in Assam, Ceylon, British Malaya and the Outer Provinces of the Dutch East Indies, has been how to attract a supply of suitable labour, and how to retain that labour long enough on the same plantation, to repay the planters for the cost of recruiting and transporting the coolies.

During the nineteenth century the attempt was made to supplement voluntary immigrants by indentured labourers, who were introduced at the initial expense of the employers, and were bound by a long-term contract, enforceable at criminal law, not to leave their employers for a certain term of years nor before they had repaid any advances made to them and the expenses of bringing them to the plantations (or mines, as the case might be).

The power given by this system to the employers over the persons and earnings of the indentured coolies led to grave abuses. The coolies were entirely at the mercy of their masters, and in practice their status was equivalent to slavery.

When the position of the coolies became realised by the various Colonial Governments involved, a sense of responsibility for their well-being developed, and legislation has gradually been introduced—first in one area, then in another—for the protection of the coolies against bad forms of recruitment, suffering in transit, oppression and harsh treatment on arrival, and in order to improve their general status. Eventually the indentured system and the penal sanction of labour contracts have been abolished everywhere except in the Outer Provinces of the Dutch East Indies, where, however, it is permitted only on certain conditions and under regulation and inspection.

The history of the indentured system and of its abolition has followed a slightly different course in each of the colonies concerned, so that a brief account must be given of the facts for each area separately.

In Assam the indentured system began in the 'thirties; when the tea industry was first established, and it was not long before it became necessary for the Government to institute control over both the recruitment of labour and the conditions under which the coolies worked on plantations. Protective legislation began in 1863, and has been strengthened from

time to time since then. By 1915 recruitment could be effected only by agents of the official "Labour Board," which also inspected the plantations, enforcing a whole code of regulations drawn up to protect the coolies. These rules not only limited the term of the contract,[1] fixed wages and hours, and prevented the re-engagement of coolies whose indentures had expired (except as free labourers), but also laid down minute instructions as to sanitation, housing, and free medical attendance. Finally in 1920 an Act was passed, which came into force in 1926, abolishing the penal sanction of contracts. Breach of contract is now punishable at civil law only.

In Ceylon a different system was evolved. Emigration from South India to the Ceylon plantations remained until recently on an entirely voluntary basis, uncontrolled by the Government, and recruitment was carried out by agents of the planters, known as "kanganis." Conditions on the plantations were extraordinarily bad, the death-rate was terribly high, and, as the contracts were enforceable at criminal law, the coolies had no chance of escape from harsh masters. The Ceylon Government intervened before the Indian Government. In 1904 the "Ceylon Labour Commission" was established to inspect the plantations and to lay down and enforce rules for the welfare of the coolies on the plantations. The recruitment of the coolies still remained unregulated, and no formal indentures had to be signed before a magistrate before embarking, as had to be done in all other cases. The coolies were nearly all in debt to the "kanganis" and could not leave the plantations to which they were allotted until they had discharged this debt. Eventually, when at last governmental and public opinion had been aroused on the subject of the treatment of Indian coolies abroad (especially in Africa), a law was passed (*i.e.* in 1921) prohibiting the emigration of unskilled Indian labour except to areas and under conditions sanctioned by the Indian Legislature. This brought the emigration of coolies to Ceylon under the same control as their emigration to other colonies or foreign countries.[2] The effect of this Act will be discussed below for all the areas concerned collectively.

[1] Usually to four years.

[2] Before 1921 strict regulations with regard to the recruitment in India and treatment of the coolies during transit and on arrival were in force for all countries except Ceylon, where alone private, uncontrolled, recruitment was still permitted.

In British Malaya the need for immigrants was due not to the actual scarcity of population but to the refusal of the Malays to work on plantations or in tin mines. They were quite content under British rule to produce subsistence crops and to collect and barter forest produce.

Chinese, Indian (especially Tamil) and Javanese coolies filled the gap, some coming as voluntary, and others as indentured, labourers. Owing, probably, mainly to the scarcity of labour in the Outer Provinces of the Dutch East Indies, from 1887 onwards the recruitment of Javanese coolies under contract for service [1] in foreign countries was prohibited except with express permission under certain conditions, by the "Netherlands Indian Labourers' Protection Enactment." Permission was still sometimes granted for emigration to British Malaya, Siam and other neighbouring countries. The bulk of the immigrants to British Malaya were, however, Chinese and South Indians.

Chinese capitalists and traders had long been settled in Malaya, and during the nineteenth century, especially during certain years of severe famine in South-East China, more and more coolies began to emigrate, some voluntarily, some under contracts controlled by Chinese agents of Chinese firms in Malaya and the East Indies.

These Chinese coolies worked in the tin mines, helped to construct public works (especially roads and railways), worked at the docks, and sometimes on the plantations. The "credit-ticket" system grew up, whereby the Kheh Thaus (*i.e.* Chinese agents) at Swatow, Amoy, Hong Kong, Macao, etc., recruited labour, arranged and paid for the passages, and made advances to the coolies who were transported to Malaya. On their arrival their services were sold by the brokers to employers needing labour, at a price which included payments to cover the expenses of recruitment and transport. The contracts made on behalf of the coolies by the brokers with the employers gave the latter power to keep back part of the wages of the coolies until they had repaid the cost of recruitment and transport.[2]

Terrible abuses soon arose. The conditions of transport

[1] Except as domestic servants and public performers.

[2] Including the repayment of advances and the profit made by the Kheh Thaus.

and the death-rate on board were appalling. On arrival the coolies were " detained " (*i.e.* imprisoned under guard of the " Samsengs " or members of the Chinese secret societies, who ill-treated them mercilessly) until they were sold to the employers, whilst under the terms of their contract they became practically slaves, and any attempt to escape or end the contract was punishable at criminal law.[1]

For a time the system was unregulated. The Europeans did not realise the true state of affairs, and the coolies themselves were too ignorant and powerless to seek redress. Between 1877 and 1914 various, not entirely successful, attempts were made to improve the system, but in 1914 its worst features were entirely abolished. The penal sanction was removed, the financial liabilities of coolies who received assisted passages were limited, and close inspection and supervision was introduced. The recruitment and giving of advances to Chinese immigrants still continues, but the conditions of work and wages must now not fall below a certain standard, and the breaking of a labour contract can only be punished by civil law penalties.

Tamil (and other Indian) coolies also entered British Malaya, both voluntarily and under the indenture system during the nineteenth century. The contracts under the latter system were usually for a term of either two or three years, the expenses of recruitment, passages, etc., were (as in the case of the Chinese) deducted from the wages of the coolies, and the contracts were enforceable at criminal law. Regulations were gradually introduced controlling recruitment in India and the conditions of employment, until in 1910, largely as a result of the agitation emanating from Kenya and South Africa, long-term indentures were prohibited.[2] Labour Ordinances in British Malaya modified and strengthened the existing rules with regard to rates of pay, hours of work, and welfare [3] of the coolies who still entered under short term contracts. These contracts were enforceable at criminal law until 1914.

Eventually in 1921, as we have already noticed with

[1] Cf. P. C. Campbell, *Chinese Coolie Emigration*, 1923.
[2] The last three-year indentures therefore ended in 1913.
[3] The welfare provisions included rules with regard to housing, water-supply, sanitation and free medical aid.

reference to Ceylon, the " Indian Emigration Act " was passed prohibiting the emigration of unskilled labour from India except (*a*) to " notified " areas; and (*b*) under very strict regulations, which include the prohibition of the penal sanction of contracts. The permission of the Indian Legislature has to be obtained before any area is notified under this Act.

Negotiations were soon entered into between the Government of India and the Governments of Ceylon and Malaya, and emigration to those areas was sanctioned, and also (more recently) to British Guiana. The penal sanction is expressly prohibited; repatriation is obligatory if desired; contracts are limited to one month; recruitment is to be by licensed persons only; no deductions are to be made from wages in Ceylon on account of the expenses involved by recruitment, and only limited deductions may be made in Malaya. The Government of India (as well as the Colonial Governments) inspects all estates employing such labour.[1]

On the whole, wages and the conditions of work of immigrant coolies in Malaya are now good, in comparison at least with the prospects of the coolies at home. The coolies remit considerable sums to their families, and have made good use of the Post Office Savings Banks. In Ceylon conditions have also improved, and if not yet satisfactory, it can at least be said that attention has been called to the condition of labour on the plantations, and that many reforms are either in progress or mooted.

Chinese, South Indian, and Javanese coolies entered the Outer Provinces of the Dutch East Indies under a similar indentured system during the nineteenth century, but in much smaller numbers.[2]

Up till 1872 the planters could punish their coolies at their discretion, but in that year the Government assumed jurisdiction over all immigrant coolies, and laid down provisions for their welfare and protection along similar lines to those already described with reference to British Malaya.

At this time the maximum punishment for breach of contract was eight to twelve days' labour on public works. As

[1] For the detailed regulations see the *Bombay Labour Gazette*, Feb. 1923.

[2] In Java there is, of course, a superabundance of labour. Breach of contract is there not punishable at criminal law.

this did not suffice to prevent frequent desertion, the planters found it did not pay to recruit labour, and combined to demand for an increased punishment for breach of contract. A Coolie Ordinance was passed in the East Coast Residency of Sumatra in 1886, subsequently copied in the other Residencies, that increased the penalty for intentional breach of contract to three months' labour on public works, restricted the term of contract to three years, insisted on repatriation on the expiration of the contract, if desired, permitted the re-engagement of coolies for another eighteen months, and insisted upon the provision of adequate and free lodging and medical treatment.[1] The most recent regulations are contained in the Coolie Ordinance for the East Coast of Sumatra, of November 14, 1924. This provides that re-engagement contracts are not to be for more than thirteen, and in some cases eighteen, months after the expiry of the original contract, the maximum period for which is three years.[2]

Since 1921 the immigration of Indian coolies has necessarily stopped, but Chinese and Javanese are still engaged partly on contract and partly under the "Free Labour Ordinance" of 1911, which lays down rules for the treatment of coolies and does not include the penal sanction.

In 1920 there were still 238,336 contract, and 44,063 free, coolies employed in the East Coast Residency of Sumatra alone.[3] In 1922, 281,000 contract coolies were employed in the Outer Provinces as a whole.[4]

There has been an agitation here, as elsewhere, for the abolition of the penal sanction for contracts, and a permanent Commission has recently been appointed to study the question and issue periodical reports. At present the Government has adopted the attitude that it is necessary to assure employers that their coolies will not cease work and quit service on "insufficient grounds," in order to make it worth while to import them. The outworn argument is used that it is "absolutely incorrect and out-of-place" to allude to such indentured service as "slavery," on the grounds that the

[1] Cf. Fowler, *Handbook for British Malaya and the Netherlands East Indies*, pp. 30 *et seq.*

[2] Cf. Legislative Series, 1924, Dutch East Indies, I, of the International Labour Office, Geneva.

[3] Cf. Fowler, *op. cit.*

[4] Cf. *D.O.T. Report on the Netherlands East Indies*, 1926.

contract has been voluntarily entered into, and lasts only for a definite numbers of years.[1] Actually, however, the freedom or lack of freedom of the coolies depends on the nature, not on the origin, of the contract, and " temporary slavery " under Government regulation and supervision would not be an inappropriate term to apply to the status of indentured labourers in Malaya and other colonies in the past, or in the Outer Provinces of the Netherlands East Indies to-day.

The history of the indentured system and of its abolition in British territory has been traced at some length, as it has had permanent effects on the relations between employers and employed and on the conditions of employment in the areas concerned.

It is interesting to note that in Iraq, under the " Forcible Assistance Law " of 1923, labour may be commandeered by the Government for works of public utility, such as the prevention of floods, fire, and the spread of locusts.

It is undoubtedly difficult to ensure a sufficient and stable supply of plantation and other labour in these areas, but it is clear that the attempt to enforce labour contracts, on the side of the coolies, at criminal law invariably leads to intolerable oppression and abuses.

Under existing keenly competitive conditions, a stable and contented labour supply is a *sine quâ non* of success, and the indentured system has left a legacy of paternalism which must be retained in order to secure contentment and to prevent the coolies wandering from plantation to plantation. The best way of retaining labour and of increasing its efficiency has been found, by experience, to be not so much by raising wages, as by adopting all possible welfare measures, and by taking a personal interest in the well-being of the labourers employed. Purely commercial relations do not, and cannot, exist between the coolies and their employers.

[1] *Asiatic Review*, Oct. 1927, " The Labour Problem in the Dutch East Indies," by Dr. Fock (late Governor-General of the Dutch East Indies).

CHAPTER VI

THE TRADE IN PLANTATION PRODUCTS

1. The Javanese Sugar Industry and Trade.
2. The Rubber Industry and Trade.
3. The Tea Industry and Trade.
4. The other Plantation Industries, and the Trade in their Products.

1. The Javanese Sugar Industry and Trade.

Sugar is, or was until 1925,[1] the most valuable item of export from the Dutch East Indies, and it is produced almost entirely in Java, where in 1925 there were no less than 480,000 acres under the crop, and an export of 1·9 million metric tons.[2] The main areas of production are Central and Eastern Java,[3] where the climate is particularly favourable, as the dry season is more marked than in the west, and there is either plenty of rain during the growing season, or the possibility of irrigation.

The bulk of the crop is grown on irrigated rice land. The industry is now a miracle of scientific cultivation and organisation, in striking contrast to what it was during the nineteenth century, and to the Indian Sugar industry even to-day.[4] The main markets in 1925 were British India (754,806 tons), Japan (408,675 tons), and Hong Kong (184,578 tons), followed by China, Egypt, and Singapore. No refined sugar is manu-

[1] Cf. Chap. IV, p. 112.

[2] Cf. *Statistical Abstract for the Netherlands East Indies*, 1926. According to the *International Year Book of Agricultural Statistics*, 1926–27, pp. 144, 302, in 1925–26 there were 192,000 hectares under sugar-cane in Java (of which 176,000 were plantations), producing 187·9 million quintals, and an export of 20·6 million quintals. This is roughly equivalent to an acreage of 480,000 ; a total production of 18·7 million (long) tons, and an export of 2·0 million (long) tons (cf. Table II, B).

[3] Cf. Fig. 24, p. 153.

[4] The estimated average yields per acre in British India and Java respectively were 1·07 tons and 4·12 tons. (Indian Sugar Committee, 1921.)

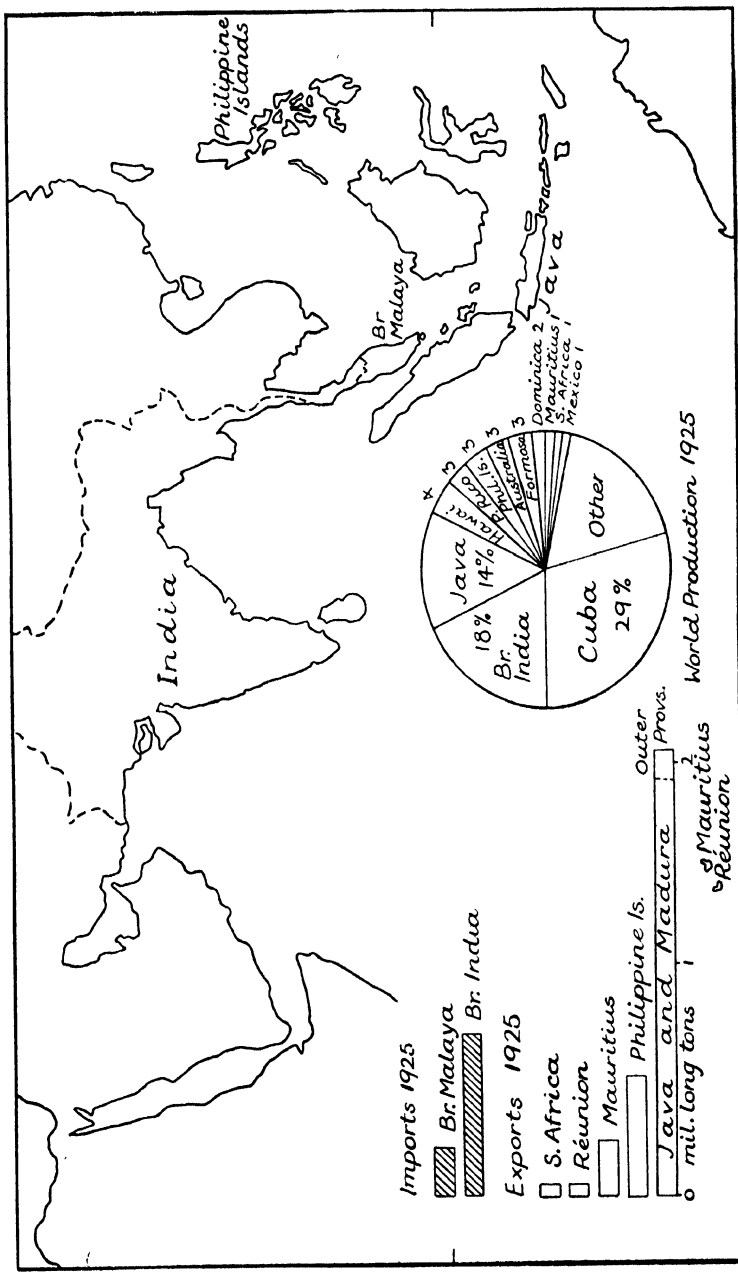


FIG. 24.—The Indian Ocean: Cane Sugar.

factured, but the white mill sugar is of such excellent quality that it is almost as pure and colourless as refined sugar.[1]

During the nineteenth century the Government controlled the production of sugar, as of other staple crops, by means of forced labour, given by the natives in return for the right to cultivate plots of land for themselves. Production per *bouw* [2] was extremely unsatisfactory, and the Government in 1878 decided to hand over production gradually to private individuals. Direct Government production was entirely abolished by 1891. Under private enterprise, over which, however, the Government still retained considerable control, great progress was made, and both output and export increased by leaps and bounds.[3] Sugar became the basis of an enormous increase in prosperity in Java, and whereas at the beginning of the century beet sugar was replacing cane sugar in the principal markets of the world, by about 1906 the tide turned, and cane sugar once again predominated. From this time onwards Javanese sugar began to replace beet sugar not only in the Indian and other Eastern markets, but also in some of the markets of the West.

This progress must be attributed to the introduction of improved scientific methods of cultivation and of milling, due to the research and experimental work of the planters and millowners of Java. Experimental stations were established in Pasoeroen (South Java), Semarang, and in other centres, where improved types of cane were produced with a high yield and immune from the most prevalent diseases, such as the so-called "sereh" diseases.[4] At the same time expensive and complicated, but very efficient, machinery was adopted in the sugar factories. The sugar-companies owning the factories are located in Java, but have adopted the managing-

[1] Cf. *Handbook of the Netherlands East Indies*, 1924, p. 258.

[2] The unit of land measurement, equivalent to 1·7 acres.

[3] The planters were stimulated to improve methods of production and organisation by the grave crisis in the industry at the end of the nineteenth century, due to the outbreak of the Sereh diseases, and the competition of beet sugar (cf. Maxwell, F., *Economic Aspects of Cane-Sugar Production*, pp. 131 and 147).

[4] The average production per acre was raised from 3·4 tons to almost 4 tons between 1900 and 1919 (cf. Fowler, *Netherlands East Indies and British Malaya*, p. 73). In 1924 the major part of the work carried on at the other research stations (except at Cheribon, where research is still pursued) was transferred to Pasoeroen (cf. Maxwell, F., *Economic Aspects of Cane-Sugar Production*, p. 131). Research is financed by a levy on the planters, about £100,000 per annum being thus raised.

agent system in the same way as companies incorporated in Holland. They control not only the preparation and sale of the sugar, but also much of the actual cultivation. In 1916 the "Javasche Suiker Vereeniging" was formed by the various sugar interests. This Association now represents almost 100 per cent. of the European-owned sugar factories, and some 65 per cent. of the area under sugar. It controls, from Holland, the sale of the products of all the associated firms, and in practice fixes prices for the whole sugar crop. The industry is financed mainly by two Dutch banks which have branches in Java.[1]

The area under sugar in Java has been limited partly by the physical factors that have already been noted,[2] and partly by Government restrictions imposed in the interests of self-sufficing agriculture. As the sugar is grown mainly on rice-land leased by the natives to planters, if the area under the crop were greatly extended it would encroach upon the land necessary for the production of the foodstuffs of the immense population of Java. To prevent this, Government regulations provide that sugar may only be planted on the same land once in three years,[3] and that it may not be extended to new land without special permission. Such permission is only granted if the Government is satisfied that a sufficient acreage for subsistence crops would still be left in the locality, and that the supply of water is adequate and certain. In some cases the natives themselves object to leasing more land to planters, and cannot be forced to do so even if there is no objection on economic grounds.

In the Outer Provinces the climate and physical conditions are suitable for the cultivation of sugar in parts of South

[1] Cf. Fowler, *op. cit.* For a full account of the organisation of the Javan Sugar Industry, cf. Maxwell, F., *Economic Aspects of Cane-Sugar Production*, Chap. XI.

[2] Cf. p. 152, above.

[3] The sugar-cane is a perennial, and, after the canes have been cut off, fresh shoots emerge and produce a second crop. First-year canes are called "plant canes," and subsequent ones "ratoons." In virgin soils, such as Cuba, ratooning is carried on for long periods, as ratoons mature sooner and require less labour, although they tend to exhaust the soil. In India and Java ratooning is never practised, and hence the sugar-crop takes over a year to mature, so that the regulation quoted in the text means that land is under sugar-cane for about eighteen months (including the period necessary for preparing the soil and setting the canes), and then under rice (or some other crop) for another eighteen months (cf. *Report on Tropical Agricultural Research in the Empire*, 1927, p. 36).

Borneo, South Sumatra, and the Celebes. Much preliminary work would, however, be necessary before holdings of a suitable size, a labour supply, and machinery [1] could be obtained. Labour, of course, would have to be imported.

The only other area in the Indian Ocean exporting considerable quantities of sugar is Mauritius, from which island 224,000 (long) tons were exported in 1923, and 200,000 in 1926.[2] Here the sugar is grown, mainly by Indians, on small holdings, and the yield per acre is low in comparison with that of Java, the latest figures being about 5·5 tons per acre in Java and 2 tons per acre in Mauritius. In the latter area three ratoon crops are normally permitted.[3]

The price of sugar is subject to exceptionally great fluctuations in the world-markets owing to the fact that the "short period demand" for sugar is very inelastic.[4] For instance, New York sugar prices in 1920 rose to three times their level in 1919, but fell again in 1921 to only one-fifth of the 1920 level.[5] The Java sugar industry is affected by these price-movements, but to a lesser extent than the beet and cane sugar industries of the West, because of the exceptionally strong position of producers in Java. Cuba, in particular, has recently suffered severely from over-production, and in 1926 adopted a scheme of voluntary restriction of output. The recent recovery of the output of European beet sugar to its pre-war proportions stimulated Cuba to call a conference of sugar producers in Paris in November 1927, at which a general agreement was reached to support the Cuban policy. The Dutch East Indies undertook to adhere to the scheme, although Dutch producers have paid good dividends even in years of exceptionally low prices.[6] Many of the Javanese Sugar Companies have reserves double or treble the amount of their capital, and can make a good profit at a price below the cost of production in Cuba.[7]

[1] Machinery is used to clear the land and for actual cultivation in Java, as well as in the factories.

[2] Cf. *International Year Book of Agricultural Statistics*. Cf. Fig. 24, p. 153.

[3] Cf. Maxwell, F., *Economic Aspects of Cane-Sugar Production*, p. 57.

[4] Cf. Memorandum No. 22, March, 1927, *Stocks of Staple Commodities*, issued by the London and Cambridge Economic Service.

[5] *Ibid.*

[6] Cf. *Annual Financial and Commercial Review of the "Times,"* Feb. 7, 1928, p. xxxiv. Details of the scheme are not forthcoming.

[7] Cf. *Times*, Nov. 21, 1927.

We have already seen that Mauritius is the largest Imperial exporter of sugar to Great Britain,[1] sending her no less than 135,988 metric tons, out of a total export of 192,304, in 1925. In Great Britain the world-control by foreign countries of sugar supplies is looked upon with grave suspicion, and Imperial sugar development has recently received serious consideration. It is reported that in Mauritius a "go-ahead policy" has been adopted, and the recent increase in the preference given to imports of Imperial sugar by Great Britain has already diverted the bulk of the Mauritius crop from British India to Great Britain.

2. The Rubber Industry and Trade.

The new uses to which rubber has been put during the last half century are legion,[2] but the increased demand from the motor and other transport industries alone suffice to account for the complete transformation of the rubber industry and trade since the beginning of this century. The United States, as by far the greatest motor-using country in the world,[3] absorbs at present the bulk of the world's rubber, and is followed—at some distance—by the United Kingdom, but the possibilities of increasing demand from the latter and from countries like France, Germany, Canada, and Australia, apart altogether from the great Eastern countries such as India, China and Japan (where at present motor development is backward) are so immense, that the industry must be considered as still capable of tremendous expansion and prosperity, in spite of the recent depression commonly attributed to overproduction. Even if German synthetic rubber becomes a commercial fact, one cannot but conclude that para rubber still has a great future. Although the United States is the

[1] Cf. Chap. IV, p. 131. Cf. *Times*, Dec. 31, 1927, "Empire Sugar Resources."

[2] For an account of the various uses of rubber see the pamphlet on *Rubber Planting in Malaya*, issued by the Malay States Information Agency, and *The Rubber Position and Government Control*, by A. Phillipson, p. 15.

[3] The United States to-day owns approximately 22 million out of the 28 million motor vehicles of the world; the United Kingdom owns over 1 million, and France and Canada each some three-quarters of a million. Australia, Germany, and the Argentine are the next most important motor users, whilst the rest of the world owns a total of only 2 to 3 millions (cf. *The Investment Register*, Oct. 1927, p. 41).

greatest consumer of rubber, London remains the principal rubber market.[1]

The rubber industry and trade is of outstanding interest and importance, on the one hand, because of its startlingly rapid development, and on the other hand, because it illustrates extremely well not only the main characteristics of plantation production and organisation which have been described in the last chapter,[2] but also two commercial problems that are to-day of absolutely first-class importance; *i.e.* (*a*) the problem of over-production, and its prevention[3]; and (*b*) the problem of the scramble by industrialised countries for raw materials, and of the effects of this scramble on international relations.[4] Consideration of both these problems is involved in any analysis of the development and present condition of the rubber industry and trade.

The enormous expansion of the rubber industry is illustrated by the following figures. In 1900 the world production of rubber was estimated at only 53,000 tons,[5] as compared with an estimated annual average production of no less than 355,000 tons between 1919 and 1923, and an estimated production of 420,000, 520,000, 610,000, and 598,000 tons, respectively, in 1924, 1925, 1926, and 1927.[6]

The bulk of this increase has been due to the extension of the production of para rubber[7] on plantations in the Orient.

[1] Cf. *The Rubber Position and Government Control*, by A. Phillipson, p. 23.

[2] For instance, in it the managing agency system prevails with regard to plantation production, Chinese traders undertake the trade in native rubber, and imported labour is used on the plantations.

[3] Cf. Appendix C, "Over-production."

[4] Undoubtedly the political relations between the United States and the United Kingdom have been seriously affected by the policy of Governmental restriction of rubber exports from British colonies. The United States consumes some 70 per cent. of the world's output of rubber, produces practically no rubber, and controls in foreign countries less than 5 per cent. of the total output. This fully explains the attitude of the United States towards the British policy of restriction.

[5] Pamphlet on *Rubber Planting in Malaya*, issued by the Malay States Information Agency.

[6] Cf. Memorandum No 22, March 1927, *Stocks of Staple Commodities*, by J. M. Keynes and J. F. W. Rowe (1927). The figure for 1927 is taken from the *Annual Financial and Commercial Review of the "Times,"* Feb. 6, 1928, p. xxxv.

[7] Rubber is the name commonly applied to "caoutchouc," which is the chief constituent of the coagulated milky juice (or "latex") which is obtained from a number of different trees and shrubs. This latex is secreted from the cortical tissue that lies between the outer bark and the wood of these trees, or which is sometimes found in the leaves, roots or bulbs. The

In 1921, for instance, it was estimated that 92 per cent. of the world's rubber came from the Orient, 7 per cent. from Brazil, and 1 per cent. from all other sources, and there is no reason to suppose that these proportions have altered appreciably since that year, although there has been an important change in the relative importance of different areas within the Orient. Up till about 1922 the great increase in production was accounted for by the extension of the cultivation of para rubber,[1] introduced from Brazil into the East, on plantations under European supervision. Since then, as we shall see in a moment, there has been such a great relative, as well as absolute, increase in the output of "native rubber" that in 1924 Dutch "native" rubber accounted for some 20 per cent. of the total world production, as compared with only 11 per cent. on account of all native production in 1922.

The main areas of production in the East are British Malaya, the Dutch East Indies, Ceylon, and India, the two former being of preponderant importance. In 1922 the acreage tapped [2] in each of these areas respectively was approximately 500,000, 400,000, 220,000, and 62,000, and their exports went to the extent of 59 per cent. to the United States, 14 per cent. to the United Kingdom, 7 per cent. to Germany, and 5 per cent. to France.[3] A much larger acreage had been planted

secretion of rubber can be greatly stimulated by scientific, periodic tapping. Rubber trees have been likened to cows. The prevalent type of rubber tree growing wild in South and Central America is *Hevea brasiliensis*, or the so-called "para-rubber" tree, and it is this which is grown on the plantations of the Orient. It is not native in the East, but has been deliberately introduced (see below, p. 161). Various types of rubber-producing trees grow wild in the east, of which the best known is the *Ficus elastica*, which is found in India, Malaya and the East Indies. Other types are also found wild in these areas (cf. *Encyclopædia Britannica*, article "Rubber").

[1] In 1900, out of the total production of 53,000 tons only 4 tons were produced on plantations, the rest being obtained from wild rubber trees. In 1922 no less than 354,000 tons out of a total of 395,000 tons were plantation rubber (*i.e.* 89 per cent.). Practically the whole of the plantation product is para rubber. The production of rubber on plantations not only made the supply much more certain, but also reduced the cost of raw rubber, owing to the great increase in output per tree that was obtained. Two standard grades of rubber, known as "first crêpe rubber" and "ribbed smoked sheet," are recognised: these are of about equal price and quality, but are used for different purposes (cf. *The Rubber Position and Government Control*, by A. Phillipson, Chap. II).

[2] Rubber trees are not tapped until they are from five to seven years old, so that a much larger acreage is planted with rubber than is tapped. The extent to which rubber trees are tapped is regulated by their age.

[3] Cf. Cotton, *Handbook of Commercial Information*, p. 293. In 1921 the percentage of the total plantation rubber (*i.e.* excluding native rubber) produced in each main area of production was as follows:

with rubber, but was not ready for tapping. Since November 1922 the planting of new areas has been to a great extent automatically checked in those countries where restriction has been in force, but as the already-planted rubber trees mature the acreage tapped tends to increase.[1] Since then the area tapped and exports of the Dutch East Indies have expanded at the expense of British Malaya, but it is not possible to estimate the increased acreage tapped in the Dutch East Indies as the bulk of the new supply comes not from plantations, but from native producers. It is difficult to estimate even the exports from British Malaya, as the Straits Settlements exports include re-exports of rubber from the Dutch East Indies, and allowance has to be made for the fact that the bulk of the Dutch rubber marketed in Singapore is native rubber. As native rubber is largely "wet"—*i.e.* contains water and other impurities—a deduction from its weight has to be made before it is put on a basis comparable with plantation rubber.[2] A rough estimate may be made that in 1925 some 205,000 long tons were exported from British Malaya, as compared with 206,000 metric, or 202,000 long tons from the Dutch East Indies.[3] This compares with an estimated export of 213,000 (long) tons of para rubber from British Malaya[4] and of 104,825 (metric) tons from the Netherlands East Indies in 1922.[5] This great increase in relative exports

97·5 per cent. in the Orient; including 57·5 per cent. in Malaya, 12·5 per cent. in Ceylon, 2·0 per cent. in South India and Burma, 25·5 per cent. in the Dutch East Indies.

2·5 per cent. in all other countries.

(Cf. Stevenson Report, Cmd. 1678, 1922, p. 6.)

[1] Allowance was made for the maturing of planted areas in making the "standard assessment" in 1922 (cf. p. 167, below).

[2] "Wet" rubber must be reduced by about one-third its weight before it can be compared with plantation rubber.

[3] Two hundred and five thousand tons is the official figure for "approximate net exports" quoted in the pamphlet on *Rubber Planting in Malaya*, issued by the Malay States Information Agency. In the same year 49,565 tons were exported from Ceylon (including re-exports), making a total export from Malaya and Ceylon of 254,565 tons. This is a near approximation to the 258,000 tons given for these two countries in the *Annual Financial and Commercial Review of the "Times,"* Feb. 7, 1928.

The Dutch official figure of exports in 1925 is 242,108 metric tons. Allowing for the fact that 107,609 tons of this were native rubber, *i.e.* "wet" rubber, exports work out at about 206,000 metric tons, or about 202,000 long tons. This is a somewhat higher figure than that quoted in the *Annual Review* mentioned above, which is 192,000 long tons.

[4] Pamphlet on *Rubber Planting in Malaya*, issued by the Malay States Information Agency, 1924, p. 59.

[5] *Statistical Abstract for the Netherlands East Indies.*

from the Dutch colonies is bound to rouse serious apprehensions amongst British producers.

The expansion of rubber production in Malaya and the East Indies has been of such outstanding importance both to the areas of production and to the industrialised West, that it is worth while to pause to consider the history of the industry.

The whole expansion has been due to the deliberate introduction of para rubber from Brazil. Seeds of *Hevea brasiliensis* were brought over in the 'seventies from Brazil to Kew Gardens by Mr. (now Sir) Henry Wickham, at the invitation of Sir Joseph Hooker, who was at that time in charge at Kew. The seeds were germinated at Kew, and the seedlings were then sent out to the Government Botanical Gardens in Ceylon, Perak (F.M.S.), Singapore, and Buitenzorg (Java). From these seedlings the whole of the *Hevea* trees now growing in the East have sprung.[1]

By 1895 the experimental stage had passed, and planting on a commercial scale began. Para rubber needs an equitable climate and grows best on hill slopes from 200 to 1,000 feet above sea-level. The trees flourished in the East, growing at least as well as in Brazil. For many years para rubber was grown only on plantations, whilst the natives continued to collect wild rubber from the indigenous plants, the product being, however, distinctly inferior, so that it fetched a lower price. Recently the natives also have taken to cultivating para rubber, but their product is cruder than plantation rubber, as they utilise less scientific methods of cultivation, tapping, and preparation for the market.

In British Malaya rubber was introduced just at a time when strenuous efforts were being made to broaden the basis of the prosperity of the areas by discovering a new, profitable crop.[2] The initiative came from the Government, which had already begun to improve transport facilities, and which

[1] The whole of the present enormous para rubber industry and trade of the East has developed during the working lifetime of Sir Henry Wickham, who brought the original seeds from Brazil (cf. *Times*, Oct. 12, 1924, "Sir Henry Wickham and the Rubber Industry"). This is a striking illustration of the exciting possibilities of scientific commercial enterprise (cf. the pamphlet on *Rubber Planting in Malaya*, issued by the Malay States Information Bureau).

[2] It will be remembered that the efforts to grow coffee, tea, and cinchona had not been a success.

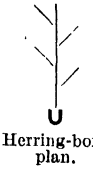
carried out the original rubber experiments. The actual planting and the organisation of the industry and trade was carried out by the managing agents that acted on behalf of the numerous rubber Companies that began to spring up.

A whole code of rules was drawn up for the establishment of plantations on scientific lines, and the development of each plantation was carefully supervised and controlled by the managing agents. It is no exaggeration to call the industry a "miracle of organisation." The plantations vary from some 5,000 to perhaps 20,000 acres in size; careful preliminary operations of clearing and drainage are performed; the trees are planted with geometric precision (some 100 to the acre) [1] in such a way as neither to cause over-crowding nor to waste space; and the actual care of the trees, tapping,[2] and preparation for the market are all conducted according to strict scientific rules. The arrangements in a modern rubber factory have been compared with those of a model dairy.[3] The latex, after collection, is coagulated by the addition of an acid, and is then washed, dried, purified, and packed. Chemicals are needed for coagulation, purification, etc.; gas and oil engines and machinery for cleaning and compressing the rubber are used; and large quantities of three-ply chests and of hessians are needed for packing the finished product.

In 1924, as a result of the allegations that in British territory less attention was paid to the scientific aspect of the industry than in Dutch territory, a "Rubber Research Institute" was established by the British Malayan Government, the

[1] The number of trees planted per acre is now much fewer than formerly. As the trees mature it is desirable to "thin" them out, until in the twelfth year the ideal number is perhaps no more than fifty. The practice with regard to weeding has also changed. Formerly the land was kept absolutely clean-weeded. Now it is considered preferable to use leguminous cover crops (cf. pamphlet on *Rubber Planting*).

[2] Most varieties of rubber trees, except *Hevea brasiliensis*, can only be tapped without exhaustion at intervals of several days. *Hevea brasiliensis* can be tapped daily if proper methods are followed and suitable implements used. The two most usual methods of tapping are, (*a*) by means of V-shaped incisions, with a collecting cup at the apex; (*b*) by the herringbone plan, each incision draining into a vertical channel, at the basis of which is the collecting cup (cf. *Encyclopædia Britannica*). Tapping on alternate days is advocated as a preventive of disease (particularly of "brown bast"), and has been largely adopted since the introduction of the Stevenson restriction scheme. Disinfecting sprays and fungicides are also in general use to prevent disease.



Herring-bone plan.

[3] Cf. *Encyclopædia Britannica*.

necessary revenue being obtained from an addition to the export duty on rubber.[1]

The principal rubber area of British Malaya that has so far been developed is the western slopes of the central mountainous spine, in Perak, Selangor, Negri-Sembilan, and the Straits Settlements. Plantations are increasing in Johore and Kedah and a few have been established in Pahang, Trengganu, and Kelantan. Successful plantations have also been established near Kuching, in Sarawak (North Borneo).[2] If

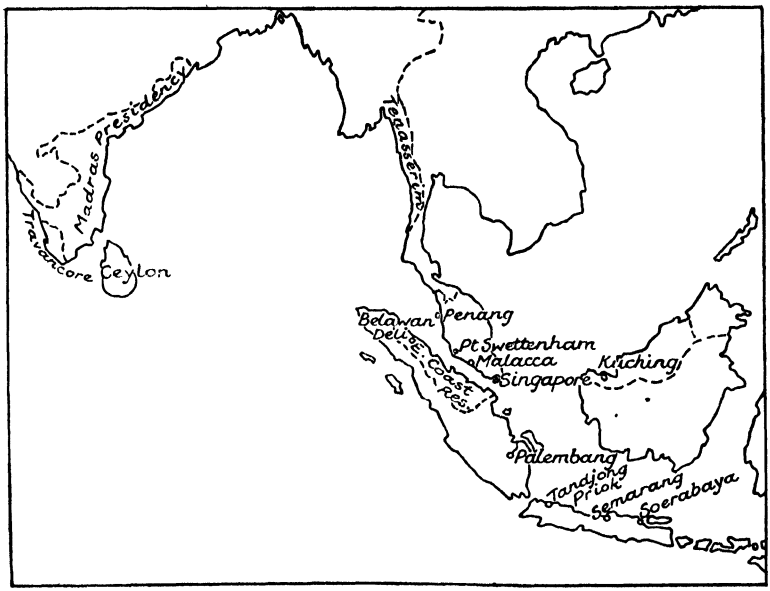


FIG. 25.—The Indian Ocean: Rubber.

communications are improved and if over-production does not undermine profits in the future, there is no reason why rubber plantations should not be extended in the Non-Federated States and in other parts of the British East Indies. Although large-scale plantations prevail in British Malaya, smallholders still produce over one-third of the total.[3]

[1] For a list of the export duties levied in British Malaya in 1921, cf. Fowler, *op. cit.*, p. 405.

[2] Cf. Fig. 25, above.

[3] Cf. *The Rubber Position and Government Control*, by A. Phillipson, p. 45, and the "Report on the Tanjong Malim Rubber Company," in the *Times*, Oct. 26, 1927.

The rubber plantations in the Dutch East Indies are situated mainly in Sumatra, especially in the East Coast Residency, and in Java. In 1925 of an estimated total export of 242,108 metric tons—approximately 46 per cent. of the (estimated) world production—about 80 per cent. came from the Outer Provinces, and 20 per cent. from Java, whilst 44 per cent. (*i.e.* 107,609 metric tons) was "native rubber." [1] There is no native rubber production in Java, nor in East Sumatra, but elsewhere in Sumatra and in Dutch Borneo such rubber is produced over considerable areas. The recent increase in native rubber is very striking. Exports are estimated to have increased from 10,000 metric tons in 1920 to 25,000 in 1922, 53,000 in 1923, 86,000 in 1924, and no less than 107,609 in 1925. On the other hand, the production of plantation rubber in the Dutch East Indies has increased but slightly, since the introduction of the restriction scheme (*i.e.* from 77,000 to 79,820 metric tons between 1922 and 1924), owing to the voluntary adherence of many planters to restriction.

The methods of cultivation and preparation and the general organisation of the rubber industry and trade in the Dutch East Indies are very similar to those adopted in British Malaya, except that even more scientific methods appear to be in general use on the plantations. British planters have not, however, been so backward in this respect as is sometimes alleged, and both British and American planters in Sumatra have appeared willing to share their experience with planters in British Malaya.[2]

In South India and Ceylon rubber was introduced at the end of the nineteenth century in the areas devastated by the disastrous

[1] This is a very rough approximation. No allowance has been made here for the fact that the native rubber is "wet" (cf. p. 160, above).

[2] The following quotation from Mr. Eric Miller's speech as Chairman of Harrisons and Crosfield, on Tuesday, Oct. 12, 1927, is of interest in this connection: "It is generally understood that developments in rubber growing along these lines having proceeded more rapidly in the Netherland Indies than in British rubber-growing countries, but things are not so far behind with us as might appear. Britishers have been well to the fore in this work in Sumatra, and there has been regular publication of information and willing sharing of experience, which will enable the neighbouring British rubber-growing countries rapidly to make up the leeway. I would like to pay a particular tribute to the broad-minded helpfulness in matters of scientific research of the H.A.P.M., the large group of estates in Sumatra which has been developed there under the ownership of the United States Rubber Company . . . the results of their experience have been freely available to any one who was sufficiently interested" (*Times*, Wednesday, Oct. 12, 1927).

coffee diseases of the 'eighties. Unfortunately, rubber is in one respect less suitable than coffee in South India and Ceylon, as the busy seasons for rubber and rice do not dovetail in with each other so well as those for coffee and rice. Rubber exports from India rose from 1,160 long tons pre-war, to an average of 5,000 tons post-war. Seven-tenths of this is exported from the Madras Presidency, mainly from Madras and Travancore, and is marketed in Colombo,[1] whilst the remaining three-tenths comes from Burma, mainly from Tenasserim, and is marketed in Singapore. Exports from Ceylon (home produce) rose from some 781 tons in 1909, to 46,064 tons in 1925, excluding re-exports of Indian rubber, which amounted to 3,501 tons in the latter year.

Before the War the bulk of the Malayan and East Indian rubber was shipped to London or Amsterdam to be marketed by the great European exporters, who—be it remembered—were usually also the managing agents of the rubber companies. During the War Singapore tended to act more and more as the great plantation rubber (as well as native rubber) market, but since the cessation of the War, London and Amsterdam have tended to regain their former position, although much of the rubber still passes through Singapore on its way to the West. A certain proportion of the plantation rubber is always sold in the East to local speculators, and in the Dutch East Indies it has been found necessary to impose an import duty of 6 per cent., in order to check undue speculation by penalising the movement of rubber from Singapore to the Dutch East Indies.[2]

The chief ports exporting rubber direct to the West, as well as *via* Singapore, from the Netherlands East Indies are Soerabaja, Tandjong Priok and Semarang in Java; and Belawan Deli and Palembang in Sumatra. The minor ports in the main send rubber to Singapore.

Some Malayan rubber is shipped direct from Prai (Penang), and Port Swettenham, but the bulk goes *via* Singapore.

Native rubber is collected by the Chinese traders and sent by them mainly to Singapore, where it is sold to the great European exporting firms.

[1] A negligible quantity of rubber obtained from *Ficus elastica* is exported from Assam.

[2] Cf. Fowler, *op. cit.*, p. 119.

The outstanding rubber problem of recent years has been the tendency towards over-production, as revealed in falling prices and profits, that is closely interwoven with the increasing rivalry between plantation and native rubber.

The great rubber boom of the first decade of this century, during which the price of rubber rose to an average of about 10*s.* per lb. in 1910,[1] in consequence of which profits soared and many fortunes were quickly and easily made, led to the formation of a large number of new rubber companies, and to more extensive planting by the old companies. The fact that it takes at least five or six years before new plantations can be tapped, and more before they attain full productive capacity,[2] accentuates the difficulty of adjusting production to demand. Hence new planting continued to be stimulated by high prices after the potential (but not the actual) production had already overtaken the increased demand. In addition the competition from native rubber became more and more formidable as the natives adopted *Hevea brasiliensis* together with better methods of tapping and of preparation. The result has been that since 1917 there has been a marked tendency for production to outrun consumption, for stocks to accumulate,[3] and for prices to fall below a profit-giving level. Rubber is perhaps the only great staple commodity that did not share in the general rise in prices during the war period.

It was the crisis of 1921 (following the world-wide post-war trade-boom of 1920, at which time, owing mainly to the temporary slump in the motor industry of the United States, the price of rubber fell from a very high level to about 9*d.* per lb.[4]) that led, after various attempts at voluntary restriction,

[1] The highest point reached was 12*s.* 9*d* (cf. *The Rubber Position and Government Control*, by A. Phillipson, p. 12).

[2] "A seven-year-old rubber tree is considered mature. But trees planted more than seven years ago continue to yield increasing quantities of rubber each year until they attain a stationary maximum at the age of thirteen or fourteen, and eventually begin to decline at the age of twenty."—A. Phillipson, *The Rubber Position and Government Control*, p. 55.

[3] Stocks are held on the plantations, at the great ports of export, and in Europe and in America.

[4] Eightpence per lb. was the lowest price reached in 1921. Prices had been at a level almost comparable with that of the 1910 boom. During 1922 the price of rubber remained below 1*s.* 3*d.* 9*d.* per lb. is usually considered to be the average net cost of production of rubber, without allowing for any profits. For instance, the Annual Report of the Sengat Rubber Estate stated that in 1926–27 the cost of rubber was 9·09*d.* per lb. When a smaller export was permitted (as in the previous three years) the cost per lb. was naturally higher (cf. *Times*, Oct. 13, 1927).

to the appointment of a Committee (presided over by Sir James Stevenson) by the British Parliament, to investigate the rubber situation and to make inquiries.[1] Two schemes were considered. The first was to prohibit the production and export of more than a certain quantity of rubber, and the second to regulate export only, not by actual prohibition of the export of more than a certain quantity, but by imposing progressive duties on exports beyond a certain amount. The latter was preferred, as it was easier to administer, would bring in revenue, and left the planters at liberty to regulate production in the best interests of the plantations.

The plan actually adopted was that the "standard" production of each plantation should be estimated, and that exports from each plantation should be limited to a certain proportion of the "standard" production, beginning (in Nov. 1922) with a quota of 60 per cent. By "standard" production was meant the quantity of dry rubber produced per plantation in the areas concerned during the twelve months from Nov. 1, 1919, to Oct. 31, 1920.[2] The idea was that production should be limited to 60 per cent. of the "standard" until the price of rubber rose to 1*s.* 3*d.*, after which it should be regulated by a sliding scale, in accordance with price changes, from quarter to quarter. At this time 1*s.* 3*d.* was deemed to be the price that would yield producers a reasonable profit, without imposing a burden on consumers. Early in 1926, however, the "pivotal" price was changed to 1*s.* 9*d.* "for reasons which the Government did not disclose."[3] Any rubber exported above the permitted quota was subject to an export duty which increased progressively with the quantity exported. The sanctioned percentage of export was subject to a minimum export duty, not to exceed 1*d.*

This proposal was sent to the Colonial Governments for their consideration, and was adopted in British Malaya and Ceylon. The Dutch East Indies refused to endorse the scheme, mainly on the score that it could not be enforced on native producers. The proposal was not considered by the Government of India, but over 70 per cent. of the rubber companies

[1] Cf. the Report of the Committee on the Rubber Situation in British Colonies and Protectorates, 1922. Cmd. 1678.

[2] In particular cases in estimating standard production allowance was made for any abnormalities of production during the twelve months indicated.

[3] Cf. *Industrial Combination in England*, by Patrick Fitzgerald, p. 165.

voluntarily agreed to restrict production.[1] Even in the Dutch East Indies many planters have voluntarily adhered to the percentage restriction prevailing under the scheme.[2] The "standard" production in British Malaya and Ceylon was estimated at 270,000 and 50,000 tons respectively,[3] and from Nov. 1922 only 60 per cent. of this could be exported. Since then the quota has been fixed quarterly in accordance with price changes, and minor amendments have been introduced into the actual administration of the scheme.

The following table [4] illustrates the increase in production and consumption since 1919, the tendency for stocks to increase unduly at certain periods, and the changes in average prices since the introduction of restriction :

Year.	Production (1000 tons).	Consumption (1000 tons).	Apparent increase or decrease in stocks (1000 tons).	Recorded change in stocks (1000 tons).	Average price of rubber.
					s. d.
1919	339	335			
1920	368	290			
1921	293	292	+ 1	+15	0 10½
1922	395 [5]	408	13	+62	0 9⅛
1923	382	434	52	−52	1 3⅞
1924	420	475	55	−73	1 1⅞
1925	520	540	−20	+ 1	2 9¼
1926	610	545	+65	+77	2 0
1927 [6]	598	578	—	—	1 6⅜

The introduction of restriction was followed immediately by both an apparent and a recorded diminution in stocks, and

[1] Cf. *Bulletin of the Rubber Growers Association*, Dec. 1924.

[2] According to the *Bulletin of the Rubber Grower's Association* (Dec. 1924) companies representing no less than 80 per cent. of the planted area agreed to voluntary restriction. It is certainly true, as will be seen below, that the production of plantations in the Dutch East Indies has increased only slightly since 1922. The Batu Rata (Sumatra) Plantations Company announced its continued adherence to the scheme in Oct. 1927 (cf. *Times*, Oct. 14, 1927), and it is interesting to note that in spite of restrictions it reported the extraordinarily low cost of only 6·1*d.* per lb.

[3] Cf. Memorandum No. 22, March, 1927, *Stocks of Staple Commodities*, p. 15.

[4] These figures, except the prices, are taken from Memorandum No. 3, *Stocks of Staple Commodities*, p. 15. The prices are taken from the *Times*, City Notes, Sept. 20, 1927. The estimates of world production and consumption given in the latter do not exactly agree with those given in the text, but follow the same general lines.

[5] Probably an underestimate (cf. below, p. 172).

[6] The figures for 1927 are taken from the *Annual Financial and Commercial Review of the "Times,"* Feb. 7, 1928, p. xxxv.

by a rise in prices. The export quota was raised from 60 per cent. in Nov. 1922, to 65 per cent. in May 1923, but the further intended rise was prevented, and even turned into a reduction, by the fall of prices in 1924. In 1925 there was a minor rubber "boom," prices reaching 4*s*. 8*d*. in November of that year. At this time rubber consumers in the United States feared a scarcity, and a regular scramble for rubber—aggravated by the action of speculators—took place. As a result the restriction on exports was removed for nine months during 1926, but owing to a fall in prices had again to be imposed, and during 1927 the export quota was lowered from 80 per cent. in January, to 70 per cent. from February to April, and to 60 per cent. in May. The latter quota was to remain in force until, at least, Feb. 1928.[1] Meanwhile the price of rubber fell from an average of 3*s*. 10*d*. per lb. in Jan. 1926, to an average of 1*s*. 7*d*. at the end of 1926, after which it varied but little up till the beginning of 1928.

The scheme has, therefore, met with somewhat fluctuating and qualified success. It is clear that restriction—although it only applies to part of the crop—has influenced prices and stocks, but the question is whether the gain to individual estates and companies has offset the loss to the British industry as a whole arising out of the stimulation to competition from the Dutch East Indies.[2] Excessive competition between planters who adhere to the scheme has been prevented at the cost of enabling Dutch rubber producers to increase their export and obtain an ever-increasing share of the trade. Their increased sales have tended to lower their costs and increase their margin of profits. Hence, whereas in 1922 Malaya alone produced more than twice as much as the Dutch East Indies,[3] in 1926 the production of the latter was the greater.[4] On the other hand, excessive extravagant tapping and the planting of unsuitable land have been prevented.

[1] Memorandum No. 22, March 1927, *Stocks of Staple Commodities* p. 16.

[2] It should be noted that the increased output of Dutch native rubber cannot be due to increased planting since the introduction of restriction, as it is a physical impossibility that any appreciable quantity of rubber can yet have been harvested off trees planted since 1922. Cf. *Times*, April 27, 1928, "Report of the Rubber Growers' Association."

[3] Cf. p. 160 above.

[4] It has been estimated that between 1922 and 1925, the production of rubber in the Dutch East Indies increased 85 per cent. Exports of "wet" native rubber from the Dutch East Indies rose from 10,000 metric tons in

The chief defect is obviously the exclusion of a large proportion of the producers from the scheme, but there are other faults as well. It is asserted that excessive standards of output were adopted in the first place, that undue "compassionate allowances" were made in individual cases, and that permission to carry over unused export rights [1] has upset calculations as to the amount of rubber available for export at different periods. Moreover, smuggling from Malaya at one time assumed very considerable proportions. [2] This means that in practice restriction has not been strictly enforced.

In addition it must be taken into consideration that the scheme has caused great annoyance in the United States. Strong protests were made against Governmental interference with the supply of raw materials, which, it was argued, was much more objectionable than the voluntary restriction of supplies by the cooperative action of producers, on the score that Government interference is more ponderous and less intelligent than that of private individuals, and that the latter would be prevented from carrying restriction to an extreme by fear of provoking competition.[3] Thus Mr. P. T. Moon said of the "rubber episode" that it "helped to raise prices little when prices were too low, and too much when prices were too high. It occasioned a panic in the United States and called forth exchanges of recriminations across the Atlantic. It handed over to the Dutch a large share of the business which the British producers had hitherto enjoyed and it stimulated American rubber companies to seek rival sources of crude rubber outside British Malaya." [4]

With regard to the stimulation given to the search for rival sources of crude rubber, it is certainly true that the panic of

1920 to 107,609 in 1925 (cf. p. 160, above). Estimates of output vary considerably, and it is possible that the output of the Dutch East Indies has not yet actually exceeded that of British Malaya, but all authorities agree that there is not much difference in the output of the two countries to-day.

[1] Under the scheme, if firms did not export to the extent permitted in any quarter, their licences accumulated and could be used at a later date.

[2] In 1924, no less than six large motor launches were engaged in Malayan waters in the attempt to suppress rubber smuggling. In 1927 it was reported that this illicit trade had been to a great extent suppressed.

[3] Cf. the arguments advanced in pamphlet No. 226, issued by the Carnegie Endowment for International Peace, *Raw Materials and their Effect upon International Relations*, Jan. 1927. This pamphlet is classed under the heading "International Conciliation."

[4] *Ibid.* p. 38. Sir Frank Swettenham, on the other hand, has asserted that restriction has diminished price fluctuations.

1925 led to the encouragement of wild rubber production in Brazil,[1] and also that during the last few years the reclamation of old rubber has greatly increased. Old rubber goods can now be rendered down into a form from which new rubber goods can be manufactured, and the production of reclaimed rubber increased from 76,000 tons in 1924 to 124,000 in 1925, 165,000 in 1926, and 190,000 in 1927.[2]

It should not, however, be forgotten that British planters made an attempt in 1921 to come to an understanding with American consumers that might have saved the situation without governmental interference. At that time, when prices were slumping, the planters made an offer to American rubber manufacturers for a five-year contract at fixed prices, which they hoped would help to stabilise prices. The American manufacturers refused because they wished to take advantage of the falling prices.[3]

Again it should not be forgotten that the American oil companies have attempted to restrict production, although without governmental interference. It is, indeed, arguable that what was really needed in 1921–22 was not legislative restriction but closer co-operation between planters, and the consolidation of the rubber interests into larger units.[4] A proper co-ordination of interests might succeed in securing the advantages without the disadvantages of the restriction scheme. Something undoubtedly had to be, and still needs to be, done to restrict over-production and prevent excessive competition and undercutting, but it is unfortunate that the scheme chosen should have been one whose objects could hardly be attained without the co-operation of the Dutch East Indies.

It is satisfactory to note that a definite step in the right

[1] Henry Ford's scheme for the establishment of rubber plantations in Brazil may also be noted in this connection.

[2] Cf. Memorandum No. 22, March 1927, *Stocks of Staple Commodities*, and the *Annual Financial and Commercial Review of the "Times,"* Feb. 7, 1928.

[3] Cf. the pamphlet issued by the Carnegie Endowment for International Peace, quoted above, p. 25. In 1922, American concerns proposed the establishment of an "International Plantation Rubber Company," to acquire all existing rubber estates and to control output and prices. British interests feared that this would enable America to "secure control of a great British Industry in its own interests" (cf. *The Rubber Position and Government Control*, by A. Phillipson, p. 45).

[4] Cf. *Times* City Notes, Oct. 12, 1927.

direction was taken in 1927, when the "United Serdang" and "Amalgamated Rubber" Companies decided to amalgamate. The combined company has a planted area of over 30,000 acres. The Anglo-Java Company, which has recently announced an extension of its acreage, has control over an even larger area. "Undoubtedly amalgamation is one of the strongest moves which the British industry can play provided that fusion results in the creation of more efficient and economical units." [1]

One point demanding further explanation is the discrepancy between the apparent and the recorded changes in stocks during the last few years.[2] The figure for 1922 will not bear close scrutiny, owing to the great uncertainty as to total production in that year, and it has been authoritatively asserted that 395,000 tons is probably an under-estimate.[3] The apparent and recorded change in stocks agree for 1923, as do also the total figures for 1924 and 1925, if taken together.[4] In 1926, the apparent check to consumption (which is estimated on the basis of trade figures), and the excess of recorded over apparent stocks may both be explained by the same factor, *i.e.* the increased production and consumption of reclaimed rubber.[5]

In spite of the adverse influences that have been examined above, it must not be overlooked that the level of rubber prices, until the recent "slump," has been considerably above the prices ruling before the introduction of restriction. The average price in 1926 was 2*s.*, and in 1927, 1*s.* 6⅜*d.*, as compared with 9½*d.* in 1922; whilst before the introduction of restriction the price fell at one time as low as 6¾*d.*[6] Hence, at the beginning of 1928, the price was more than 100 per cent. above that of 1922, and was at a level that enabled the industry as a whole to be carried on at a substantial profit. Rubber companies have, indeed, declared very good profits during the last few years. For instance, out of seven such companies whose

[1] Cf. *Annual Financial and Commercial Review of the "Times,"* Feb. 7, 1928.

[2] Cf. Table, p. 168, above.

[3] Cf. Memorandum No. 22, March 1927, *Stocks of Staple Commodities*, p. 16.

[4] This is obviously a reasonable thing to do, as production and consumption do not necessarily rise and fall at precisely the same moment.

[5] Apart from this explanation it is difficult to account for the check to consumption, which normally increases by some 10 per cent. per annum.

[6] Cf. *The Investment Register*, Oct. 1927.

final dividends are quoted (for the year ending in October or November, 1927), in the *Investment Register*,[1] six declared dividends between 20 per cent. and 50 per cent., whilst even the seventh declared a dividend of 10 per cent. Out of the eight great groups of British industries whose profits (covering returns from 192 separate companies) are quoted from 1926 and 1927, in the *Annual Financial and Commercial Review of the "Times"* (Feb. 7, 1925), rubber and tea companies showed by far the largest returns. In 1927 rubber companies paid an average profit of 25·2 per cent. on paid-up capital, and tea companies 34·8 per cent. No other group showed an average profit of over 19·5 per cent.

During 1927, various measures were introduced to improve the working of restriction. Smuggling was sternly repressed, the validity of export licences was curtailed, the Malayan "standard" assessments were in some cases reduced, and new methods of tapping, calculated to reduce the output per tree, were adopted.[2]

Unfortunately, although these measures helped to improve the working of the scheme within the "restriction" areas, they tended to weight the balance more than ever against British, as contrasted with Dutch, interests.[3] Nevertheless the amount of rubber kept off the market by restriction has been less than is usually imagined, and has probably amounted to no more than 9 or 10 per cent. of the total production.[4]

Criticism of the whole scheme came to a head early in 1928, and the British Government referred the problem to the "Committee of Civil Research."[5] This step was followed by a severe slump in rubber prices and shares, which was accentuated by the announcement in the House of Commons on April 4, 1928, that the Government, having received the report of the Committee of Civil Research, had decided to remove restriction on Nov. 1, 1928, until when the existing scheme should continue

[1] Oct. 1927.

[2] Cf. the Annual Report of the "Sagga Rubber Company," in the *Times*, Nov. 11, 1927, and the *Annual Financial and Commercial Review of the "Times,"* Feb. 7, 1928, p. xxxv.

[3] Cf. *Times*, City Notes, Jan. 17, 1928, Report of Harrisons and Crosfield presented to the annual meeting on Oct. 11, 1927, and the City Notes of the *Evening Standard* at this period. The new rules are said to have penalised the more, in favour of the less, efficient producers.

[4] Cf. *Times*, May 10, 1928, "Report of the Rubber Plantations Investment Trust."

[5] Cf. *Times*, Feb. 9, 1928.

unaltered.[1] The price of rubber fell from 1*s.* 1*d.* just before, to 10⅛*d.* after this announcement, and has since fallen still lower.

It is too early, as yet, to estimate the effects of this decision. The Government appears to have been influenced primarily by the fear that, if restriction were maintained, increased competition would be experienced from unrestricted areas and reclaimed rubber.[2] Criticism was only to be expected, as also at least a temporary fall in prices, but the following points may be noticed. In the first place it is clear that partial restriction (that is, without the inclusion of Dutch producers) necessarily favours those who stand outside the scheme as compared with those within it, and that, in consequence, "as the proportion of the British output to the world's production has decreased, so the effect of restriction on supplies has grown less." [3] In the second place the fact that "restricted" producers could only sell a proportion of their potential output, meant that their costs of production were raised.[4] In particular, companies which manufacture rubber goods, but also own their own rubber plantations, have in some cases suffered, as they have been prevented from increasing their own production and forced to buy more rubber from the Dutch and other producers.[5]

It is suggested that the result of the removal of restriction in November, 1928, will be an accumulation of stocks up till that date, followed by a great flooding of the market when restriction is removed. This is surely to credit British producers with an entire lack of common sense and inability to co-operate in face of the problem presented. The object of retaining restriction until November is to give British producers time to reorganise, so that the evil of wholesale over-production

[1] Cf. *Times*, April 5, 1928; "The British Rubber Industry," "Effect of Rubber Decision," and "Cabinet and Rubber."

[2] Cf. *Financial News*, April 20, 1928, "Rubber Market Freedom."

[3] *Times*, April 5, 1928, "The British Rubber Industry."

[4] The costs of the Harpenden (Selangor) Rubber Company were, for instance, raised by this means from 8·62*d.* in 1926 to 11·61*d.* in 1927 (*Times*, March 30, 1928, "Harpenden (Selangor) Rubber"). It may here be noticed that the method of quoting "all-in" costs gives a false impression of the profits earned, as a rubber estate not only takes six to seven years to mature, but also is a wasting asset. The yield of rubber per acre is also very variable. A clear explanation of the "all-in" costs fallacy is given in the *Times*, April 5, 1928, in the Report of the "Gula-Kalumpong Rubber Estates."

[5] Cf. *Times*, City Notes, March 30, 1928. On the other hand, Mr. Ormsby-Gore is reported to have said, during his recent visit to Java, that there is not "the smallest local support for the idea of a pool" (cf. *Times*, May 29, 1928). The *Financial News*, April 17, 1928, published an interesting scheme for co-operative selling.

may be avoided. In the absence of Government control, there is reason to hope that an understanding may be reached between planters in the Dutch East Indies as well as in British territories. This is the more likely in view of the fact that, in 1922, a majority of the members of the " International Rubber Growers' Association in the Netherlands Indies " voted in favour of restriction, and that the refusal of the Netherlands Indian Government to co-operate was prompted mainly by the difficulty of enforcing restriction on native producers.[1]

In view of the higher level of prices that, apart from the present slump, has prevailed since 1922, of the tendency towards amalgamation of interests, and of the expansion of the demand for tyres and other rubber goods, it is impossible to take an altogether pessimistic view of the situation, although it is certain that re-organisation of some kind must be undertaken. The industry must, apparently, depend in the main upon reducing costs of production and increasing yield per acre, and rely upon lower prices to stimulate consumption and discourage competition.[2] As far as British Malaya is concerned, it may be suggested that the actual manufacture of rubber goods might be instituted, in order to introduce a new source of profit, rather than to depend solely on increased output.

Some rubber goods are already manufactured in Singapore and exported mainly to China, but much more might be attempted in this direction, particularly with regard to the manufacture of crêpe-soled shoes.

3. The Tea Industry and Trade.

Tea is one of India's principal exports, on the basis of value, and her leading plantation product. It is by far the most valuable of Ceylon's exports, and is becoming of increasing importance in Java and Sumatra.[3]

Until the middle of the nineteenth century the bulk of the tea consumed in the West came from China, but before the end of the century the product of India and Ceylon far surpassed

[1] Cf. *Asiatic Review*, April 1928, "Rubber in the Netherlands Indies," pp. 209, 210.

[2] Cf. *Times*, May 10, 1928, " Report of the Rubber Plantations Investment Trust."

[3] Cf. Fig. 26, p. 176.

that of China in the world market, and had practically ousted China tea from the British market.

Tea-planting began in Northern India in the eighteen-thirties, but progress was most rapid in the last quarter of the century, when tea was also extensively introduced into those

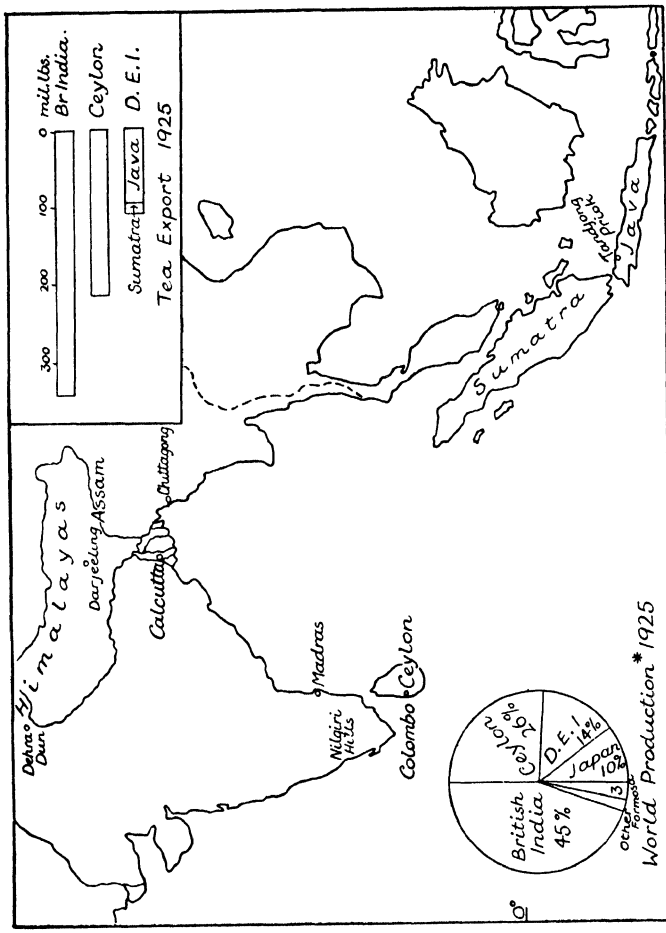


FIG. 26.—The Indian Ocean: Tea.
* Excluding China.

areas of South India and Ceylon where coffee had formerly been grown.[1] The production of tea in India rose from 71 million lbs. in 1885, to an average of 300 to 400 millions at the present day, nearly the whole of which is exported. Between

[1] Cf. s. 4 below.

700,000 and 800,000 persons are normally employed in the tea plantations and factories of India. In Ceylon, production has increased from less than 700,000 lbs. in 1882, to over 200,000,000 lbs. at the present day. In the Dutch East Indies the production of tea, principally in Java, but to some extent in East Sumatra, is also of importance. In 1925, India exported some 342 million lbs., Ceylon 213 millions, and the Dutch East Indies 112 millions,[1] as compared with about 113 millions from China and quite minor quantities from Japan, Formosa, etc.[2]

In South India, as a rule, the tea companies manage their own plantations directly, but in all the other areas of production the managing-agent system prevails. The factories in the Dutch East Indies are extremely efficient and up-to-date, and excellent research work is carried on with the object of improving the methods, and decreasing the cost, of production. In India a cess is levied on exports, the proceeds being handed over to the Indian Tea Planters' Association to be utilised for research.

French, Belgian, and British, as well as Dutch, capital is invested in the Javan and Sumatran industries, and the tea is partly shipped direct to Europe and partly marketed in Batavia. If the labour supply can be augmented the potentialities of expansion in Sumatra are very great.

During the prosperous pre-war period a great increase in production coincided with a heavy fall in prices, but profits were maintained at a reasonable level as the increased turnover more than compensated for the smaller profit per unit. The tea-drinking habit had, in Great Britain and some other European countries, extended to all classes of the population, so that it was difficult to sell more tea (except in proportion to the increase in population) in these markets at any price. New markets for tea were therefore sought, and were found in Canada, the United States and Russia.

The War dislocated the tea-trade, the Russian market being practically lost, so that since the cessation of war competition has been extremely keen and prices depressed. Tea was one of the articles to which Imperial preference was granted by Great Britain in 1919, but with little benefit to India and Ceylon, as these two countries, both of which came

[1] Ninety-six millions from Java, and sixteen from Sumatra.
[2] Cf. *International Year Book of Agricultural Statistics.*

under the preferential tariff, supplied between them at this time the bulk of the tea consumed in the United Kingdom. With the development of the tea industry of the Dutch East Indies, the preference became more valuable, but in 1924, the rate of preference was reduced,[1] with adverse effects on the trade of India and Ceylon. In 1926, the quantity of tea passing through the Suez Canal from south to north was approximately the same as in 1913,[2] the loss of the Russian market being offset by a great increase in the consumption of tea in the United Kingdom.[3] About three-quarters of the world's tea crops and almost 90 per cent. of those of India, Ceylon and the East Indies, are shipped to the United Kingdom for distribution.

Early in 1927, owing to record crops in India, Ceylon and the East Indies, the price of tea slumped to 10¼*d.* (for "common Indian tea"), but in May, and still more in September, partly owing to reports of poor crop conditions in Northern India, and partly on account of a resumption of buying by Russia, a revival took place, making the average for the year 1*s.* 7·01*d.*, as compared with 1*s.* 7·42 in 1926, so that the situation was reported to be "decidedly favourable to producers."[4]

A moderate but fairly steady annual increase in the world demand for tea may be expected in the future, but it is obvious that competition amongst planters may be expected to take the form of an attempt to improve quality, or to reduce costs

[1] By the Finance Act of 1924, the general duty on tea was reduced from 8*d.* to 4*d.*, and the duty on Imperial tea from 6⅔*d.* to 3⅓*d.* The preference was therefore reduced.

[2] Cf. Fig. 13, pp. 46, 47. The tonnage of tea registered as passing through the Suez Canal greatly exceeds, when converted into lbs., the exports of tea from the East. Presumably this discrepancy is due to the weight of the lined packing cases utilised for tea.

[3] The consumption of tea in the United Kingdom had in 1923 increased 35 per cent. since 1913 (cf. Memorandum No. 1, *Stocks of Staple Commodities*). This is a very striking fact in view of what has been said above about the apparent satiety of the British market before the War. Presumably the change is indicative of an important alteration in the tea-drinking habits of the people due to, or at least arising since, the war. This tendency has continued since 1923. The estimated consumption of tea in Great Britain and Northern Ireland was 387·5 million lbs. in 1923, and had risen to no less than 408·8 millions in 1926. (Cf. Memorandum No. 3, on *Stocks of Staple Commodities*, p. 19.) This compares with an estimated world consumption of 760·3 million lbs. in 1925.

[4] Cf. *Annual Financial and Commercial Review of the "Times,"* Feb. 7, 1928, p. xxxv.

of production, rather than of a scramble for extensive new markets.

4. The Other Plantation Industries, and the Trade in their Products.

In India, in addition to tea and rubber, indigo, coffee, and cinchona are produced in plantations.[1]

The Indian indigo industry is not on the same footing as most plantation industries, as the "planters" do not as a rule own and manage the land on which indigo is grown, but simply make advances to the cultivators (on the understanding that the latter will grow indigo) and exercise more or less close supervision over the actual process of cultivation. Moreover, a large proportion of the crop is produced entirely under the control of Indians.

Indigo has been cultivated for many centuries in India, but first became of commercial importance in the seventeenth century, and of still greater importance at the end of the eighteenth and beginning of the nineteenth centuries. At this time English "planters" made agreements with the ryots whereby the latter received advances in return for which they undertook to sow a certain acreage with indigo, and to hand over the crop to the planters at a fixed price, from which deductions were made by way of interest on the advances. The ryots often became permanently indebted to the planters, and found that the price they received for their crops was frequently below the market price of indigo. Great discontent was aroused. The ryots broke their agreements by trying to sell part of their crops in the open market, or by planting less than the stipulated area with indigo, whilst the planters attempted to enforce their rights rigorously, and punished the defaulting ryots harshly and in an extremely high-handed manner. The resulting disorders and even bloodshed led to a series of official inquiries which resulted in measures for the protection of the ryots, and led to the migration of many of the indigo planters, in the eighteen-sixties, from Bengal to Bihar, Agra, and Oudh.

[1] Cf. Fig. 5, p. 9. Sugar and tobacco in India are both produced almost entirely on small holdings by peasant cultivators.

At the present day the indigo industry is located partly in Bihar and the United Provinces, where Europeans now supervise production under less onerous conditions to the ryots than previously prevailed in Bengal, and partly in Madras, where there are only a few European planters, so that the indigo (which is of poorer quality than in the north) is mainly produced either independently by the ryots on small holdings, or under the control of Indian capitalists. The unreliable quality of the Madras indigo tends to lower the price obtainable for the whole crop.

The production and export of indigo increased rapidly during the second half of the nineteenth century, until in 1896-97 there were no less than 1·6 million acres under the crop, and an export of 169,523 cwts.

Then came the great blow to the industry from the cheap German synthetic dyes which were at this time placed on the market. These undercut the Indian product until in 1914 the acreage under indigo was only one-tenth of what it had been in 1896. During the War the supply of synthetic dyes was cut off, and the demand for indigo temporarily revived, only to decline once more after the Armistice.[1] There seems at the present time little likelihood of any extensive revival of the industry, in spite of the institution in 1918 of a small cess on the export of indigo, the proceeds of which are utilised for research into improved methods of cultivation and preparation for the market.

The systematic cultivation of coffee began in South India [2] and Ceylon in the eighteen-thirties, and attained its zenith in 1862. Then appeared the dreaded "borer beetle" and "leaf blight"[3] which devastated the coffee plantations and practically ruined the industry by about 1885. In Ceylon, whereas there were in 1877 no less than 272,000 acres under coffee and an export of 103,000,000 lbs., to-day only a few acres remain under the crop. In India the acreage also declined until in 1925-26 there were only 95,166 acres under coffee. About 22,000,000 lbs. were produced, the bulk of which was exported, chiefly to the United Kingdom and France.

[1] In 1925–26, there were 133,615 acres under indigo, and 2.017 cwts. only were exported. The total production was 28,200 cwts.

[2] In Mysore, Coorg and the Nilgiri Hills.

[3] Cf. C. W. E. Cotton, *Handbook of Commercial Information*, p. 254.

After the collapse of the coffee plantations a search began for alternative plantation crops for South India and Ceylon. The gap was eventually filled by tea, cinchona, and rubber. The cinchona, which is utilised for the production of quinine, is grown to a great extent under the direct control of the Provincial Governments of Bengal and Madras,[1] but is very limited in amount, so that at present the bulk of the world's supply is obtained from Java.[2]

Conditions of production in Ceylon are very similar to those in South India, and the introduction of coffee, tea, rubber, and cinchona plantations followed similar lines. The main difference is that these products form Ceylon's main exports, whereas in India, with the exception of tea, they are insignificant in comparison with the other great staples of trade. Tea, rubber, and cacao are grown, on plantations, in special clearly-marked localities (the tea in the hills, the rubber on the slopes), on a belt of land whose rainfall is over seventy-five inches.[3] The coconut palm, as in India, Malaya, and the East Indies, mainly grows wild, and the nuts are simply collected by the peasants, who utilise them and other parts of the tree for an immense range of purposes. There are said to be at least 360 different uses for the various products of the coconut palm.[4] From the dried kernel of the nut, known as "copra," an oil is expressed which, when refined, can be used for edible purposes, in particular for the manufacture of butter substitutes, as well as for lubricating machinery and for dressing leather. The residue, known as "oil-cake," can be used as a manure or as cattle-food. The leaves, fibre, and husks are also used for innumerable purposes; and toddy is prepared from the fermented juice.

We have already seen that coconut products form one of Ceylon's main exports, and that both copra and coconut oil

[1] Cf. Abridged Report of the Royal Commission on Agriculture in India, 1928, p. 58.

[2] Considerable quantities used to be produced by the Germans in Tanganyika, but this industry broke down during the disorders of the War period, and has not yet revived under British rule. At present the area under cinchona in India amounts to some 6,000 to 7,000 acres, about half consisting of Government plantations in North Bengal, and the rest of partly private plantations in South India. Bengal has no exportable surplus, so that the whole of India's export of quinine comes from the South.

[3] Cf. Fig. 6, p. 11, and p. 97.

[4] Cf. Pamphlet on the *Coconut Industry in Malaya*, published by the Malay States Information Bureau.

are extensively exported from British Malaya and the Dutch East Indies.

In India, on the other hand, coconut products are mostly consumed locally. Even in Malaya native holdings still comprise about two-thirds of the total area (some 215,000 acres in 1925) under coconuts. The Malay understands and appreciates coconut planting, and is ready to work on coconut plantations, so that it is not necessary to import labour for the purpose, although some Tamils, Chinese, and Javanese are employed as well. The Malay Peninsula is particularly suited to coconut plantations, and only some 4,000 Malay nuts are necessary to produce one ton of copra, as compared with 6,000 to 8,000 in most other parts of the world.[1]

Native-produced copra is, like most other native produce, marketed by Chinese traders, mainly at Singapore.

The milling of copra (and of various other oilseeds) is carried out both by the Chinese and by Europeans, hydraulic presses being utilised by the latter.

During the War considerable progress in the milling of vegetable oil was made in the Dutch East Indies, which in 1919 exported 330,000 metric tons of copra and 141,000 tons of oil expressed from copra. Since then, however, some of the mills have been closed and those still at work now supply in the main local requirements only.[2] Large quantities of copra are, however, still exported.[3]

Although the trade in copra and coconut oil has not yet developed in the East to the extent that it has in West Africa, there is no doubt that the scientific cultivation of the coconut on large-scale plantations could supply large and increasing quantities of vegetable oil, whilst there is at present little fear of over-production.[4] Some years are necessary before a coconut plantation begins to bring in any return, and it is estimated that seven and a half years must be allowed before an estate becomes self-supporting. In East Sumatra, as also in the F.M.S., attempts have also recently been made to

[1] Cf. Fig. 8, p. 15.

[2] Cf. *Handbook of the Netherlands East Indies*, Chap. X.

[3] *I.e.* 377,666 metric tons of copra were exported in 1926. In 1925, out of a total of 351,010 tons exported 321,053 came from the Outer Provinces. This compares with an export of 185,404 long tons of copra from British Malaya in 1926, together with some 8,585 tons of coconut oil.

[4] Cf. Pamphlet on the *Coconut Industry in Malaya.*

introduce oil-palm plantations with considerable success, although this industry is still in the experimental stage.[1]

In the Dutch East Indies, in addition to the plantation industries already described (including the sugar, rubber, copra and tea industries), there are large and successful coffee, tobacco, and cinchona plantations.

Before the introduction of para rubber, coffee formed the chief Javanese export after sugar. The African "Robusta" type is chiefly grown, mainly under European supervision. Here again, the managing-agent system prevails.[2] The exports rose from 14,735 metric tons in 1910 to 72,706 in 1924.

Tobacco is produced on rubber and rice-land on a small scale throughout the Dutch East Indies, and leaf tobacco, for wrappers, is produced on European plantations on a considerable scale in East Sumatra and Java—as also in British North Borneo. Tobacco is to Sumatra what tea is to Ceylon, and sugar to Java. The quantity of tobacco exported from Java is actually greater than that from Sumatra, but the Sumatran tobacco is far more valuable. Much of the Central Java tobacco is used for filling and is of inferior quality. The tobacco is mostly shipped to Amsterdam and utilised for Dutch cigars, but recently a certain amount has been shipped direct to the United States. No managing-agents are employed, but instead various federated Western tobacco firms maintain branches in the East Indies to manage the plantations. In 1923 some 53,246 metric tons of tobacco were exported from the Dutch East Indies as a whole.

We have already seen that Java is the chief source of supply of cinchona for the whole world,[3] the crop being produced on both private and Government estates.[4] In 1923 some 7,000 metric tons of cinchona bark were exported from the Dutch East Indies, mainly from Java, principally to Holland. In addition quinine was manufactured at Bandoeng (South West Java) and 251 metric tons (valued at 250,805 guilders) were exported, largely to British India.[5]

[1] Cf. *Asiatic Review*, Oct. 1924, "Oil-palm planting in Sumatra," and the *Colonial Report for the F.M.S.* for 1926, p. 28. In the F.M.S. 10,000 acres have actually been planted with oil-palm.

[2] The "forced cultivation" of coffee was not finally abolished until 1918.

[3] Cf. p. 181, above.

[4] Cf. Chap. 1, p. 22.

[5] The next largest markets were Italy, Holland, and Japan.

In British East Africa the plantation system is used for the production of coffee,[1] maize and sisal hemp, but the trade of these colonies in these articles is still negligible in comparison with the trade in plantation products of the areas with which we have just been dealing. Cotton, the chief export of British East Africa, is mainly grown on small holdings, not on plantations.[2]

[1] Mainly "Robusta."

[2] Cf. pp. 126, 127 above.

CHAPTER VII

THE TRADE IN MINERALS

1. A Brief Review of the Mineral Trade of the Ocean.[1]

The chief minerals entering into the trade of the Indian Ocean by the Suez Canal route are mineral oil (passing in both directions), coal (passing, normally, only from north to south), manganese, and a number of miscellaneous minor minerals (passing from north to south).[2] In addition there is a valuable, though not bulky,[3] trade in tin (passing through the Canal from south to north) and a considerable local traffic in coal and mineral oil.

The trade in mineral oil, coal, and tin demands somewhat detailed treatment,[4] but space forbids more than a summary account of the trade in the other minerals, which will, therefore, be shortly considered at this point.

The production and export of the manganese of Central India rose to importance after the discovery and opening-up of the high grade deposits of the Central Provinces at the beginning of this century. Exports rose from 92,000 long tons in 1900 to a peak of 902,291 in 1907, since when there have been fluctuations, the export for 1924 being 639,000.[5] Of the 800,000 metric tons passing through the Suez Canal in 1925 about 79 per cent., therefore, came from India, the chief ports of export being Bombay and (though of much less

[1] Cf. Fig. 27. p. 186.
[2] Cf. Fig. 13, pp. 46, 47.
[3] The tin is not sufficiently bulky to be entered as a separate item in the Suez Canal figures.
[4] Cf. ss. 2, 3, and 4, below.
[5] In this year 803,000 tons were produced in India.

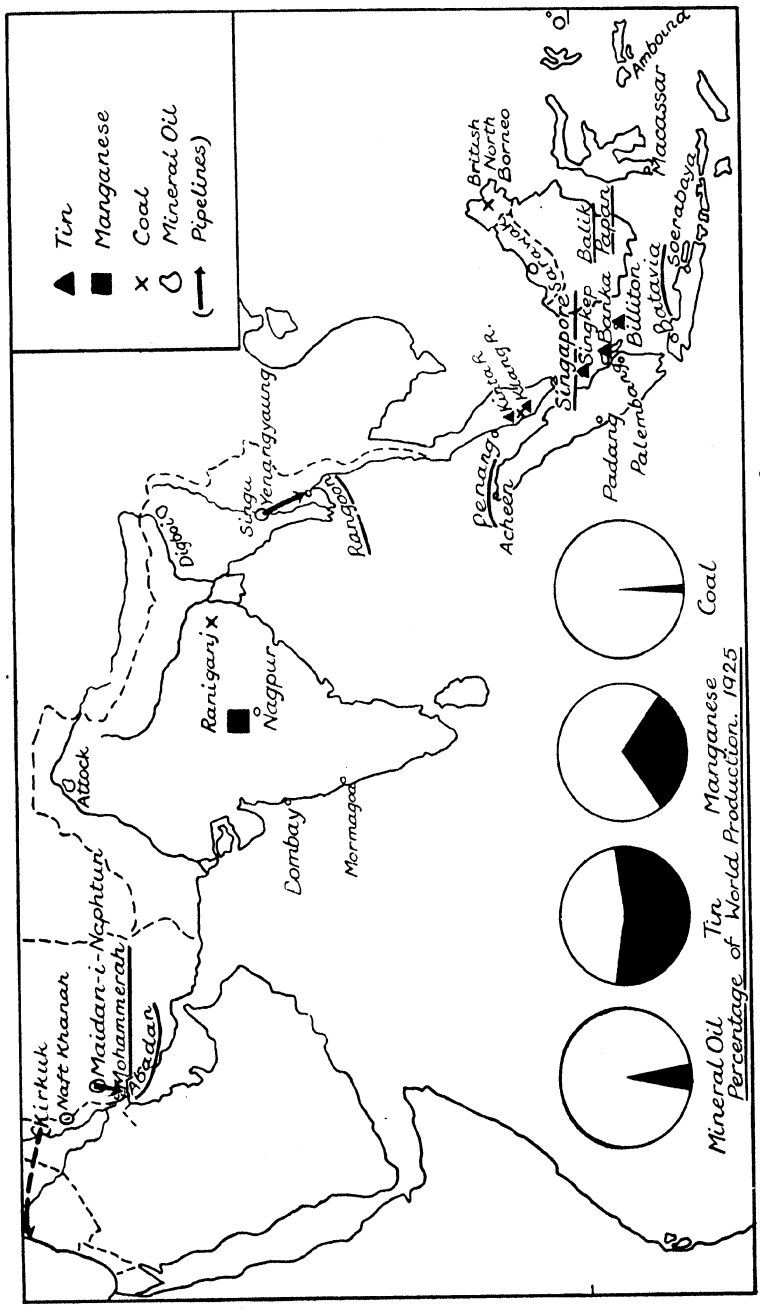


FIG. 27.—The Indian Ocean: Minerals.

importance) Mormagao. The chief consumers of Indian manganese are Belgium, the United Kingdom, and France,[1] the ore being mainly used in the form of ferro-manganese by the steel industries of those countries. A little ferro-manganese is now produced in India, and consumed by the Indian steel industry, but in quantities that are negligible in comparison with the total production of manganese ore.

The trade in salt, which is mainly imported from the West by India, has changed but little since pre-war days.[2] India possesses rock-salt in the Punjab, brine salt in Rajputana, and recovers sea-salt by evaporation on the western coast, but does not yet supply more than about two-thirds of her own needs.

The "other minerals" passing through the Canal from south to north to the extent of 0·7 million metric tons both in 1913 and in 1925, include zinc, lead, cast-iron, and a number of minor mineral products of India (especially Burma) and the Dutch East Indies. In addition there is a regular, but not increasing, export of gold from Mysore.[3]

2. The Trade in Mineral Oil.

We have already noted that since 1913, a great change has taken place in the mineral oil trade of the Suez Canal,[4] owing to the development of the Persian oil-fields, the decline in Russia's export of oil to India, and the increase in the exports of mineral oil from the United States to India.

Since the end of the 19th century there have been world-wide discoveries of rich new sources of supply of mineral oil, including the discovery of oils especially adapted by their chemical composition for use as fuel.[5] Since about 1910,

[1] In 1925–26 Belgium took 169,000, the United Kingdom 155,000 and France 138,000 long tons of Indian manganese.

[2] The tonnage of salt passing through the Suez Canal was 0·5 millions in both 1913 and 1925.

[3] In 1924 some 396,000 ozs. of fine gold were produced in Mysore, valued at Rs.2,54 lakhs.

[4] Cf. Chap. II, p. 50.

[5] In 1898 discoveries of oil especially adapted for fuel purposes were made first in Borneo, then in Texas. The Mexican discoveries came shortly afterwards. Up till this time the only important sources of the supply of petroleum were the United States (where production began in 1859), Rumania (1859), and Russia (1863). The oils of Borneo, Texas, and Mexico were no less adapted to produce kerosene than Russian or Pennsylvanian oil, but were better adapted for fuel oil (cf. *Encyclopædia Britannica*, 11th and 12th Editions. Article, "Fuel").

there have also been world-wide developments in the internal combustion engine (which utilises mineral oil as a fuel) and in its application to motor-vehicles and aeroplanes.[1] This has led to an immense expansion of the demand for mineral oil, and to a scramble (complicated by political motives) for control over the sources of supply.

The results have been a tremendous increase in both the production and trade in mineral oils, the growth of extremely powerful corporate organisations controlling the main sources of production,[2] and the present condition of over-production in America.

The table on the opposite page shows the estimated production of the principal countries in 1920, 1925 and 1927, together with the estimated export of the principal producing countries in 1925.

The increase in world output has been phenomenal; *i.e.* from 96·7 million long tons in 1920, to no less than 178·5 millions in 1927. The greatest increase has been in the United States (whose share of world production has increased from 63·8 to 72·0 per cent.), and Venezuela (whose share has risen from a negligible proportion to 5·2 per cent.), and this accounts for the relative decline of production in the Dutch East Indies and India (since 1920), and in Persia (since 1925), in spite of an increase in absolute production. The heavy decline in the output of Mexico is attributed partly to the "legislative persecution" of the industry,[3] and partly to the fact that much Mexican oil is heavy and of low grade, and hence is not greatly sought after "in a period of abundant and cheap high-grade oil."[4]

In 1925, only about 5·9 per cent. of the world production of petroleum took place in the Indian Ocean, but the exports

[1] Petrol or gasoline is "a mixture of the more volatile hydrocarbons which are obtained in the fractional distillation of natural petroleum" (*Encyclopædia Britannica*, 12th edition, new volumes, "Fuel"). Recently the so-called "cracking" process has been introduced "by which during distillation the heavier and less volatile fractions of the crude oil are partially broken up into hydrocarbons of a volatility which brings them within the range covered by motor-spirit requirements." This means that the yield of petrol from crude oil has been greatly increased; *i.e.* from 10·7 per cent. in 1909 in the United States, to 26·1 per cent. in 1918 (*op. cit.*).

[2] Cf. article "Petroleum" in the new volumes of the 12th edition of the *Encyclopædia Britannia*, and *The Politics of Oil*, by R. Page Arnot.

[3] These laws have recently (1928) been modified.

[4] Cf. *Annual Financial and Commercial Review of the "Times,"* Feb. 1928.

PRODUCTION AND EXPORT OF PETROLEUM [1]

Countries of production.	1920.	1925.[2]			1927.[3]
	Percentage of world production.	Actual production. (In million long tons.)	Percentage of world production.	Actual export.[5] (In million long tons.)	Percentage of world production.
United States .	63·8	109·1	71·7	21·7	72·0
Russia . . .	3·6	6·8	4·4	1·2	5·6
Mexico . . .	23·5	16·5	10·1	14·5	5·2
Venezuela . .	—[4]	5·3	3·4	2·8	5·2
Persia . . .	1·8	4·6	2·9	3·6	2·0
Roumania . .	1·1	2·3	1·5	0·7	1·9
Dutch East Indies	2·5	3·0	2·0	2·3	1·6
India (Burma) .	1·1	1·2	0·7	0·1	0·6
Sarawak . . .	0·2	0·6	0·3	0·5	0·4
Other countries .	2·4	5·6	3·0	*Peru* 0·9	5·5
TOTAL .	100·0 96·7 million long tons	155·0	100·0	48·3	100·0 178·5 million long tons

from areas within the Ocean formed about 13 per cent. of the world's trade in petroleum.[6]

The producing areas of the Indian Ocean are naturally of particular importance to Great Britain (and to Holland), as they include the chief existing and potential sources of supply that are under British (and Dutch) control.

In 1925, 2·7 million metric tons of petroleum produced in the Indian Ocean [7] passed through the Suez Canal. Of this 2·2 millions came from Persia, 0·2 million from the Netherlands East Indies, 0·1 million was shipped from Suez (after being refined there) and ·03 million came from Burma.[8]

[1] Cf. *Encyclopædia Britannica*, 12th edition, article "Petroleum," and *Mineral Industries of the British Empire and of Foreign Countries.*

[2] 1925 is the last year for which (almost) complete figures are available.

[3] The figures for 1927 are taken from the *Annual Financial and Commercial Supplement of the "Times,"* Feb. 1928.

[4] Venezuela's share of world production in 1920 was almost negligible.

[5] Under this heading the export of the principal producing countries only is given. Imperial gallons have been converted to long tons at the rate of 245 gallons to the ton (cf. Table II, B.).

[6] This is merely a rough estimate, as the exports of the principal producing countries only have been estimated, those of less important areas being omitted. In any case the estimate of exports merely represents the total weight of the different types of petroleum products exported, not the quantity of crude petroleum represented in the exports, nor the relative value of the exports of different countries.

[7] Cf. Fig. 27, p. 186.

[8] Cf. *Suez Canal, Bulletin Décadaire*, May 15, 1926.

In addition to the westwards trade there is a large local traffic in the petroleum of the Dutch East Indies, of Burma (especially to the Indian mainland), and of Persia, and a considerable export of petroleum and petroleum products from the Dutch East Indies to the Far East.

The exploitation of the Persian oil-fields began in 1909 [1] with the formation of the Anglo-Persian Oil Company, by the Burmah Oil Company.[2] An exclusive concession was obtained from the Shah of Persia to search for and sell petroleum, natural gas, asphalt, etc., throughout the Persian Empire,[3] for sixty years (dating from 1901). In 1914, the British Government bought a majority of the shares of the company, which contracted to supply the Government with a large quantity of fuel oil for delivery over a term of years. So far exploitation has been practically confined to the wells at Masjid-i-Suleiman in the "Maidan-i-Naphtun" fields in South-East Persia, about 100 miles from the head of the Persian Gulf, and to the neighbouring "Maidan-i-Naphtek" fields, but other rich fields are known to exist.

The crude petroleum is carried by pipe-lines to the company's refineries at Mohammerah and Abadan, and some is exported in the crude condition to the Company's refinery at Llandarcy in Wales.[4] The Anglo-Persian Oil Company also controls indirectly a number of other refineries in the United Kingdom, France, and elsewhere, through its associated companies. At the refinery at Llandarcy (Wales) cracking plants have been recently installed.[5]

The Company owns a large fleet of tankers, which, including the further twelve vessels recently ordered from British shipyards, will soon amount to 83 vessels, having an aggregate dead-weight tonnage of 770,000.[6] The Company owns directly, or indirectly, the whole of the issued capital of the Anglo-Persian Oil Companies for Australia (registered in 1925),

[1] The Persian oil wells were found as the result of experimental borings during a quarter of a century (cf. *Suez Canal, Bulletin Décadaire*, June 25, 1927).

[2] Cf. below, p. 192.

[3] With the exception of five Provinces (cf. *The Stock Exchange Year Book*, 1926, "Anglo-Persian Oil Company").

[4] Cf. *Suez Canal, Bulletin Décadaire*, June 25, 1927.

[5] Cf. "Annual Report of the Anglo-Persian Oil Company," 1926–27, *Times*, Nov. 3, 1927.

[6] Cf. "Annual Report of the Anglo-Persian Oil Company," 1926–27, *Times*, Nov. 3, 1927.

Ceylon (1926), Egypt (1926), India (1920),[1] Kenya (1926), and for South Africa ; the whole of the issued capital of the British Petroleum Company and of ten other enterprises, and a large part of the capital of twelve other companies.[2] In each of the three years from 1919–20 to 1921–22, the Company declared a dividend of 20 per cent. ; in 1922–23, and again in 1923–24, it declared a dividend of 10 per cent. ; in 1924–25 12½ per cent. ; in 1925–26 17½ per cent. (together with a share bonus of 50 per cent.) ; and in 1926–27 12½ per cent.[3]

Progress was checked during the War, but since the conclusion of the War production has increased from 1·1 million metric tons (in 1918–19) to 4·5 million metric tons in 1925–26.[4] In 1926–27, it amounted to 4,800,000 long tons, and the estimate for 1927–28 is over 5,000,000 long tons.[5]

Of the total export of mineral oil from Persia, over 80 per cent. goes to the British Empire, chiefly to the United Kingdom.[6] In 1924, out of the total 2·5 million long tons exported, 1,203,600 were fuel and lubricating oil, 1,032,100 crude oil, 184,200 benzine, and 166,800 were refined petroleum.[7]

A small quantity (valued at £4,700 in 1922–23) of American oil is imported into Persia, in the form mainly of lubricating oils and grease, which can be landed at prices that compete with the domestic products of a similar quality.[8]

We have already noted [9] that the company has done much to open up and improve in many ways the areas in which production is carried on. In particular it has done good work in helping to provide schools and technical training, and continually increases the number of its Persian employees.[10]

[1] The object of this company is to provide oil, coal, and other fuel to the chief bunker ports.

[2] Cf. *Stock Exchange Year Book*, 1927.

[3] All these dividends are declared "less income-tax." These figures are all taken from the *Stock Exchange Year Book*, except those for 1926–27, which are taken from the *Times*, Nov. 3, 1927.

[4] Cf. *Suez Canal, Bulletin Décadaire*, June 25, 1927.

[5] Cf. "Annual Report of the Anglo-Persian Oil Company," *Times*, Nov. 3, 1927.

[6] Cf. *D.O.T. Report on the Trade and Industry of Persia* (1925). Complete figures are not forthcoming of the destination of the exports.

[7] Cf. *Mineral Industries of the British Empire and Foreign Countries, Statistical Summary*, 1923 to 1925.

[8] Cf. *D.O.T. Report on Persia*, 1925. Cf. Chap. IV, p. 122.

[9] Cf. Chap. IV, p. 119.

[10] At the annual meeting of the Anglo-Persian Oil Company (cf. *Times*, Nov. 3, 1927), H.E. Mirza Eissa Khan Fayz (Imperial Persian Commissioner) spoke of the efforts made by the company "in constructing roads and establishing hospitals and schools, their expenditure of vast sums of money

The chief sources of Indian, or more accurately Burmese, production are the Yenangyaung, Singu and about seven other smaller fields worked by the Burmah Oil Company and a number of smaller companies.[1] The Burmah Oil Company was registered in 1902 (to take over a company of the same name registered in 1886)[2] and production rose from 50 million gallons (about 204,080 long tons) in 1901 to 294 million gallons (about 1,200,000 long tons) in 1924.[3] The Yenangyaung field has been electrified, and electrification is now in progress in the Singu field. Both fields are connected by pipe-lines with the company's refineries at Rangoon. The Company owns tank installations at the chief Indian ports and a fleet of tank steamers, and has also played an important part in the promotion of other oil companies. For instance, it formed the Anglo-Persian Oil Company, in which it still holds shares to the value of £3·5 millions, out of an issued capital of £23·9 millions, and has a controlling interest in the Assam Oil Company.[4] Its own issued capital has increased from £60,000 in 1886 to £10 millions, and in 1926–27 a dividend of 30 per cent. less tax was declared.[5]

The bulk of the petroleum shipped from Burma is sent to the Indian mainland. Before the War this amounted to an annual average of 97·5 million gallons (about 397,000 long tons), and in 1925–26 had risen to 152 million gallons (about 620,000 long tons). By means of an understanding arrived at between the Burmah Oil Company and the Government of India in 1905, a maximum selling price, considerably below the normal market price, has been fixed for the cheaper quality of kerosene, in the interests of the poorer Indian consumers.[6]

on wages and material," and the indebtedness of Persia to the company, "for the benefits derived by my country generally."

[1] Quite minor quantities are produced in the Punjab and Assam.

[2] Cf. *Stock Exchange Year Book*, 1927.

[3] The figure given by the Statistical Summary of the Mineral Industries of the British Empire and Foreign Countries (issued by the Imperial Institute) for 1924 is 1,202,300 tons.

[4] Cf. *Stock Exchange Year Book*, 1927. The company also promoted the "Tinplate Company of India," in co-operation with the Tata Iron and Steel Company (cf. Arnot R. Page, *The Politics of Oil*, p. 50).

[5] Cf. "Annual Report of the Burmah Oil Company," *Times*, June 11, 1927. It may be noticed that this company, like the Anglo-Persian Oil Company, takes a part in promoting education. In 1927 it made a grant of £100,000 to the University of Rangoon for the establishment of a College of Mining and Engineering.

[6] Cf. *Times*, Dec. 10, 1927, "Report of the British Burmah Oil Company," and *Times*, June 12, 1928, *ibid.*

The amount exported from Burma to foreign countries is relatively small. Before the War an annual average of 13·1 million gallons (53,500 long tons), valued at Rs.13·9 lakhs, was exposted. In 1925–26 and 1926–27, the amounts were actually less ; *i.e.* 8·2 million gallons (33,500 long tons) valued at Rs.92·8 lakhs, and 2·3 million gallons (9,400 long tons) valued at Rs.25 lakhs, respectively.[1] In addition 35,000 long tons of paraffin wax (valued at Rs.1,59 lakhs) were exported in 1925–26, and 38,900 long tons (valued at Rs.1,84 lakhs) in 1926–27. Apart from the paraffin wax the petroleum exported was only about one-nineteenth of that sent to India. It consisted mainly of benzine and other light oils (which went mainly to the United Kingdom), and only to a very minor extent of kerosene.

Even the increased supply of Burmese petroleum does not anything like satisfy India's needs, except for petrol.[2] The consumption of kerosene oil (which has ousted vegetable oil as an illuminant), fuel oil, and lubricating oil in India has increased by leaps and bounds. Whereas before the War India imported an annual average of 91 million gallons of mineral oil (375,500 long tons), in 1925–26 she imported no less than 200 million gallons (816,300 long tons), and 183 millions in 1926–27. Of the total no less than 55 per cent. (by value) came from the United States, and about 15 per cent. each from Borneo and Persia.[3] Meanwhile Russian oil, which was largely imported at the beginning of the century, had become a negligible factor, its place in the Indian market having been taken by American oil.[4]

Petroleum is produced in Sumatra (near Acheen, and Palembang), in East Java, in Amboina (Moluccas) and in

[1] The enormous increase in recorded values is due primarily to a change in the basis of valuation introduced in 1919–20, and should be largely discounted (cf. C. W. F. Cotton, *Handbook of Commercial Information for India*, p. 274).

[2] Twenty-nine million gallons of petrol were sent in 1926–27 from Burma to the Indian mainland, and only 4 million gallons were imported from foreign countries.

[3] In 1925–26 the chief types of oil imported were fuel oil (93 million gallons), of which Persia supplied some 66⅔ million gallons ; kerosene oil (79 million gallons), of which the United States supplied 87 per cent. and lubricating oil (21 million gallons), of which Borneo sent some eight and the United States six million gallons. In 1926–27, 90 million gallons of fuel oil, 64 millions of kerosene, and 24 millions of lubricating oil were imported (cf. *Annual Review of the Trade of India*, 1926–27, p. 40).

[4] Cf. Chap. II, p. 48.

South and East Dutch Borneo.[1] Smaller, but rapidly increasing quantities, are also obtained from Sarawak (British North Borneo).[2] Although the various Dutch companies at work are known by different names, almost the whole of the output and manufacture is controlled by the Royal Dutch Petroleum Company ("Koninklijke Nederlandsche My"), which was founded in 1890 and has a world-wide organisation and a large fleet of tank steamers. Large up-to-date refineries exist in Java, Sumatra, and Dutch Borneo. Kerosene oil is exported not only to neighbouring markets, such as the Straits Settlements and British India, but also to China, Japan, Australia, and East Africa. Bunker oil is supplied to numerous ports, such as Singapore and Colombo, and benzine is shipped to Europe from Sumatra in considerable quantities.[3] In 1924 no less than 2,015,000 metric tons of various petroleum products were exported, of which 1,614,000 tons came from the Outer Provinces, and consisted mainly of benzine, gasoline and fuel oil.[4] The paraffin wax produced at the Balikpapan refineries (Borneo) is said to be the finest in the market. Of this 30,500 metric tons were exported from the Outer Provinces in 1924. Sarawak (British North Borneo) is also becoming of increasing importance as a producer and exporter of petroleum, and in 1926 exported 332,203 long tons of fuel oil, 160,801 long tons of crude petroleum, 105,876 long tons of benzine, and 82,886 long tons of kerosene.[5]

In addition to the existing sources of supply in the Indian Ocean the potentialities of several petroliferous areas in the Tigris-Euphrates basin of Iraq must not be overlooked, although the outlet for this oil is to be the Mediterranean, not the Persian Gulf.

In October 1927, the Turkish Petroleum Company

[1] Cf. Fig. 27, p. 186.

[2] The production of oil in Sarawak increased from 592,000 long tons in 1924, to 711,000 in 1926.

[3] Cf. *Handbook of the Netherlands East Indies*, 1924.

[4] In 1924 the following were the main types of oil exported: (*a*) From Java and Madura: benzine and gasoline 1,782,247 gallons, fuel oil 528,270 gallons, diesel and solar oil 3,364 gallons, kerosene 663 gallons, and paraffin wax 3,859 long tons. (*b*) From the Outer Provinces: fuel oil 285,361,940 gallons, benzine and gasoline 143,108,987 gallons, kerosene 45,009,646 gallons, diesel and solar oil 25,973,972 gallons, batching oil 4,533,322 gallons, lubricating oil 22,527 long tons, and paraffin wax 30,598 long tons.

[5] A small quantity of kerosene was also recorded by volume, but the complete figures are not available for 1926 (cf. *Mineral Industries of the British Empire and Foreign Countries*).

announced the discovery of oil at Kirkuk, some 200 miles from Baghdad. The new "gusher" was immediately capped, but cannot be used commercially until a pipe-line has been laid. The line is to be laid to the Mediterranean.[1] This will not be done until the oil-field has been more thoroughly proved, and it will probably be years before the oil comes on the market.

Before this discovery the shares of the Turkish Petroleum Company were held to the extent of 47½ per cent. by the Anglo-Persian Oil Company; 22½ per cent. by the Royal Dutch Shell Company; 25 per cent. by a French group; and 5 per cent. by Mr. C. S. Gulbenkian. Since the discovery, however, a readjustment has been made to meet the wishes of the American oil interests. The latter are to take over some of the shares of the Anglo-Persian Company, and thus the proportion to be held by the four international groups will be 23¾ per cent. each.

In view of the existing over-production and accumulation of stocks in the United States the possible addition of a prolific new source of supply will hardly be welcomed in that country. Although the consumption of petroleum products has continued to expand, it has not during the last few years kept pace with the enormous increase in production, particularly in America.

During the last two years (*i.e.* 1925 to 1927), production in the United States has risen from about 109 million long tons to 128·5 millions, whilst world production has increased from 155·0 to 178·5 millions.[2] The result is that stocks have been accumulating and the price level has ruled low. In the United States stocks (which represent perhaps 80 per cent. of the world's stocks of oil) rose from 69·7 million long tons in May 1926, to 74 millions in May 1927, and again to 81·7 millions in August 1927.[3] "Even at £3 a ton, the present vast stock represents a sum of about £250,000,000, which the American banks must be financing in one form or another."[4]

[1] Cf. *Times*, City Notes, Oct. 19, 1927, and *Times*, June 26, 1928, "Report of the Shell Trading and Transport Company."

[2] Cf. *Mineral Industries of the British Empire and Foreign Countries*; "*Times*," June 9, 1927, City Notes; the *Annual Financial and Commercial Review of the* "*Times*," Feb. 7, 1928; and p. 189, above.

[3] Cf. Memorandum No. 22, March, 1927, *Stocks of Staple Commodities*, and (for the latest figures) the *Times*, City Notes, Nov. 1, 1927.

[4] Cf. *Times*, City Notes, Oct. 19, 1927.

Oil is one of the few commodities that is cheaper now than before the War, and as until 1928 there was no system for the conservation of supply and no adequate limitation of output or of competition in the United States, the situation there was naturally extremely serious. The glut of oil in the market became so pronounced in 1928 that concerted measures are now being adopted to stabilise production.[1]

In the Indian Ocean the problem of over-production has not hitherto been nearly so serious, probably partly because in all the areas concerned a policy of conservation has been followed.[2] Most of the companies have maintained an extremely sound financial position, which has enabled them to regard with composure the low level of prices experienced during a period of depression. We have already noted that in 1926–27 the Burmah Oil Company declared a dividend of 30 per cent. less tax, and the Anglo-Persian 12½ per cent. less tax. In the same year the Royal Dutch Company declared a dividend of 23⅓*d.* per cent. less tax,[3] and the "Shell Transport and Trading Company" 25 per cent. free of tax.

Recently, however, a great drop in prices has occurred in India, and the tendency towards over-production in the West has begun to affect profits in the East. Thus in March 1928, the Anglo-Persian Oil Company announced that no interim dividend would be paid on the ordinary shares, in view of the world over-production of oil and the consequent fall in prices.[4] In India the trouble is due to the competition induced by the import of cheap Soviet oil by the Standard Oil Company,[5] and the consequent price war between the Standard Oil and the Royal Dutch. The result has been a sudden drop in the value of the shares of the Burmah Oil Company (from Rs.98 to Rs.58), and a decline in dividends to 20 per cent., less tax, in 1927–28. Several petroleum-producing companies in India appealed for protection against this form of "dumping,"

[1] Cf. *Times*, June 26, 1928, "Report of the Shell Trading and Transport Company."

[2] The Burmah Oil Company has been little affected by the fall in prices because it has normally sold a large proportion of its output in India at less than the prevailing market price. Cf. p. 192, above.

[3] Cf. *Times*, City Notes, June 9, 1927.

[4] Cf. *Times*, City Notes, March 28, 1928.

[5] Soviet oil is excessively cheap because it comes from confiscated wells for which the Soviet Government refuses to pay compensation (cf. *Times*, Dec. 10, 1927, and Jan. 19, 1928).

but the Tariff Board reported that no case had been made out for "safeguarding." [1]

It is reported that the price war has now ended, but the terms of settlement are not yet known.[2]

Apart from the specific problem of Soviet oil, it is clear that over-production in America is extremely undesirable for all concerned, as it entails industrial and financial disorganisation, and means that the world's reserves of oil are in danger of dissipation. In addition there is the risk of the disturbance of international relations.[3]

On the other hand, competition from oil produced from coal and from synthetic oil are not at present to be feared, as, although both processes are chemically possible, they are not yet commercially profitable.

3. The Coal Industry and Trade.

During the nineteenth century the coal trade of the Indian Ocean consisted in the main of the transport of British coal to the great ports of the Ocean where it was utilised chiefly for bunker purposes. In the second half of the century one other source of demand grew to considerable proportions, namely, the demand for coal from the Indian railways.[4] The construction of railways in India, however, also led to the opening-up of India's coal-fields, and therefore to an alternative source of supply. It was the East Indian Railway Company that, working in Bengal near the great Gondwana coal deposits, determined to try and obtain a cheaper and more accessible supply of coal by developing mines of its own in the Raniganj coal-field.[5] This led to the development of the Indian coal

[1] Cf. *Times*, Sept. 12, 1928.

[2] Cf. *Times*, March 28, 1928, "Petroleum Price War in India," and *Times*, June 12, 1928, "Report of the Burmah Oil Company." The Royal Dutch and the Burmah Oil Companies have recently formed a combined selling agency for the Indian market.

[3] The need to guard against the undesirable results of the over-production of oil and of the control exercised by the great oil combines has recently been realised by the Governments of several countries. For instance, legislation with regard to oil (of different types and with different primary objects) has been passed or is contemplated in Mexico, Chile, and France.

[4] The first Indian railway was opened in 1853.

[5] The coal of India occurs in a series of basins in Bengal, Bihar and Orissa, and Central India, known as the Gondwana System. The coal-fields at the Eastern end of the Gondwana System are known as the "Raniganj" fields. These were opened up first. The Jherria fields, to the west of the

industry, by a large number of joint-stock companies formed for the purpose, that are mostly European-owned and managed. The production of coal in India rose from 1·3 million tons in 1884 to 6·6 millions in 1901. By this time Indian coal, in spite of its inferior quality (it has a much higher ash content than English coal, and is only to a limited extent suitable for coking purposes), had obtained a practical monopoly in Bengal and had also obtained a market in Colombo and in various ports of British Malaya and the East Indies.

At the same time as the production and consumption of Indian coal increased, although British coal lost some of its markets on the eastern side of the Ocean, the demand for coal for shipping and industrial purposes increased so greatly that the consumption of British coal actually continued to expand.

Hence during the first fourteen years of this century both the production and export of Indian coal, and the import of British coal, tended to increase. The annual average tonnage of coal produced in India in the five years preceding the War was 14·7 million tons; that of coal imported by India was 455,000 tons; and that of coal exported 825,000 tons. Exports were, therefore, almost double the imports, but both were insignificant in comparison with the coal produced and consumed within the country.

The War caused a complete change in the coal trade of the Ocean. The cutting off of British supplies stimulated not only the production and use of Indian coal in India, but also the import of South African and Australian coal by various ports of the Ocean, and the production of coal in the East Indies. Once this coal from new areas had obtained a footing it proved difficult for English coal to displace it again when the War was over, and the quantity of coal passing through the Suez Canal from north to south has never regained its pre-war level. In 1925 it amounted to only 0·7 million metric tons as compared with 1·2 millions in 1913.[1] In 1926 the quantity was, of course, greatly reduced (*i.e.* to 0·3 millions) owing to the great coal strike in England. In this year 0·2 million tons of coal actually passed through the Canal from south to north.

India has greatly extended her production which, in 1925

Raniganj fields were opened up next, and other fields (still farther west) are now being exploited also.

[1] Cf. Fig. 13, pp. 46, 47.

amounted to 20·9 million tons,[1] and now supplies the bulk of her own needs, including those of Burma,[2] but has lost the greater part of her export markets. Up till 1920 she exported eastwards considerably more coal than was imported into Western India, but in that year, owing partly to the increased industrial demand for coal and partly to congestion on the railways, there was a scarcity of coal within the country and exports were prohibited (except under licence by the Government) with the two-fold object of conserving Indian supplies and economising (and regulating) the use of railway wagons. When the embargo on export was removed in 1923, coal from other countries (especially from Africa and Australia) had obtained a firm footing in all the principal ports concerned, and Indian coal has not been able to regain more than a small proportion of its former sales abroad. Thus exports of Indian coal fell from a pre-war (quinquennial) average of 825,000 tons, and a record figure of 1·2 million tons in 1920, to only 77,000 tons in 1921. Since then it has risen to what appears to be a more or less stable figure of over 200,000 tons.[3] Imported coal is still needed in Western India—although it is no longer mainly obtained from the United Kingdom—and, in fact, the quantity imported is very much the same as before the War, (402,000 tons in 1925-26) and is therefore now much in excess of the exports.

The two main reasons why Indian coal has failed to regain its former foreign markets, in spite of low pit-head costs, are because the quality supplied under well-known trade names has not always been above suspicion, and because of the high freightage from Calcutta.[4] South African, Australian, Japanese, and (to a lesser extent) East Indian coal have, therefore, obtained the upper hand in Malaya and the East Indies. Indian coal has now practically disappeared from Sumatra (where, formerly, Sabang was the chief importing port), and has (in normal years) been reduced to an almost

[1] The production of coal in British India rose to a peak of 21·7 million tons in 1919, after which it fell to only 17·0 millions in 1920, but has since slowly risen again to almost the 1919 level.

[2] In 1925–26 Bengal supplied Burma with 433,000 tons of coal.

[3] Two hundred and forty-one thousand tons were exported in 1925–26. In 1926–27, as a result of the coal strike in England, India actually exported 51,400 tons of coal to England.

[4] Cf. Chap. III, p. 81, for an explanation of this latter fact.

negligible figure in Singapore.[1] Even in Colombo South African coal now predominates; for instance, in 1924, 34 per cent. of the coal imported came from Natal, 27 per cent. from the United Kingdom, and 25 per cent. from British India.

Singapore is, naturally, one of the principal markets for coal in the East, both for internal use and for re-export for bunkers. In 1925–26 a total of 598,151 tons were imported by Singapore for internal use. Separate figures are not forthcoming for each port to show the coal shipped for bunker purposes, but in 1925–26 the figure for Singapore, Penang and Malacca together was 506,122 tons.

South African coal can be transported more cheaply to Western India than Bengal coal, and has to a great extent replaced English coal in this market also. Whereas before the War the quantity of English coal imported by India was considerably more than twice that from Africa (including Portuguese East Africa), it is now little more than half as much.[2] The predominance of African coal was even more marked between 1921–22 and 1924–25 (inclusive), at which time South Africa still had a marked surplus of imports, by weight and bulk, over exports. During the last few years, as we have already seen,[3] the balance of South African trade has completely changed, and freightage can no longer so easily be obtained at ballast rates.

Meanwhile the production of coal has increased rapidly in the East Indies.[4] Even in Malaya the production of coal at Rantau Panjang, near Kuala Lumpur (in Selangor), increased considerably during the War, which has helped to satisfy purely local demand, although no coal is exported.[5]

In the Dutch East Indies the Government works mines in Sumatra and Borneo. The Ombilin Mines, near Sawak Lunto

[1] In 1906, for instance, Singapore imported 317,000 tons of Indian coal, as compared with only 30,000 in 1925–26. In 1926–27, as a result of the English coal strike, 130,000 tons of Indian coal were imported by Singapore.

[2] The annual (quinquennial) average value of India's imports of coal from the Union of South Africa and from Portuguese East Africa before the War was Rs.16.4 lakhs, as compared with Rs.58.5 in 1925–26. The corresponding values of English coal imported were Rs.41.3 lakhs and Rs.30.8 lakhs. In 1925–26 India imported 115,000 tons of coal from the Union of South Africa, and in 1926–27, 86,000 tons.

[3] Cf. Chap. III, p. 55.

[4] Cf. Fig. 27, p. 186.

[5] Cf. pamphlet, *Mining in Malaya*, p. 12, issued by the F.M.S. Agency. This coal is mainly used for refining tin in the Singapore reverberatory furnaces.

in the Padang Highlands of Sumatra, produced in 1922 some 544,000 metric tons, about half of which was utilised for Government purposes, and half sold from Emmahaven (Padang), Tandjong Priok, Soerabaja and Macassar, mainly as bunker coal.[1]

The Pulu Laut Government mines of South East Borneo have been worked only since 1913, but produced in 1922 some 110,600 tons, of which about 62 per cent. is used for Government purposes and the rest exported as bunker coal.

In the same year the Bukit Asem collieries (in the Palembang Residency of Sumatra) produced some 113,500 tons, the concession having been taken over by the Government in 1919 from a private company. Coal of superior quality to the brown coal previously worked here has recently been discovered, so that increased production may be expected in the future. In all, the Netherlands East Indies produced 1·4 million metric tons of coal in 1926.

Recent developments in the coal trade of the Indian Ocean may therefore be summarised as follows. The markets for English coal east of Suez have been seriously reduced owing to the increased competition from African and local supplies. This tendency has been aggravated by the increased use of oil for bunker purposes, and of hydro-electric power in Western India.[2] The production of Indian coal has increased, and serves the internal market, except in the west where imported coal still holds its own. Farther east than India, including Ceylon, less English and much less Indian coal is now consumed, supplies being obtained either (to a minor extent) from local sources, or from Africa, Australia and Japan.

[1] Cf. *Handbook of the Netherlands East Indies*, 1924.

[2] Hydro electricity is the main source of power utilised by the Bombay cotton mill industry, and by the other large-scale industries of Bombay City. The first company (the "Tata Hydro-Electric Power Supply Company, Ltd.") for the generation of hydro-electricity was formed in 1910, with a capital of Rs.1,75 lakhs, raised in India, and began to supply electricity to Bombay in 1915. Since then the Andhra Valley Power Supply Company and the Tata Power Company have also constructed works, whilst the "Koyna Valley" project is still under construction. These companies co-operate with each other, Tata & Sons being the managing agents for all of them, and in practice may be considered as associated firms. They all depend on the heavy rainfall of the Western Ghats, which is collected in great reservoirs by means of dams.

4. The Tin Industry and Trade.

The trade in the tin of British Malaya and of the Dutch East Indies is of immense importance from the point of view of the producing countries, and of the value of the trade, although, as has already been noted,[1] the weight of tin exported is not great enough to be shown as a separate item in the Suez Canal returns.

The prosperity of British Malaya has been based on tin, which was the only product of commercial value when British administration was first introduced and railway construction began. It was the export duty on tin,[2] and the earnings of the first railway lines from the transport of tin, that brought in a substantial revenue and thus enabled the Government to extend the roads and railways, to experiment with new crops, and in general to open up the country.

Tin had been worked in a primitive manner, by Malays and by Chinese capitalists, entrepreneurs and labour, for many centuries before the advent of European management and up-to-date, large-scale, scientific methods of production. The chief area of production before European production began was in Perak, at the Kinta Mines. It was the discovery of the rich fields of Larut in the second half of the nineteenth century that led to " faction fights " between the various Chinese clans in the eighteen-seventies, and hence to British interference and the opening-up of the F.M.S.

The building of the railways, opening-up of new mines, and introduction of improved methods increased production to such an extent that in 1900 the F.M.S. produced 43,111 tons, which alone was estimated to be 54 per cent. of the world's output. At this time British Malaya and the Dutch " tin isles " (Banka, Billiton and Singkep) together accounted for something like two-thirds of the world's tin output. F.M.S. production attained a peak of 51,733 tons in 1904, since when it has varied between 34,500 tons (in 1921, at the period of great trade depression) and 50,000 tons (in 1913). In 1925, the F.M.S. exported 46,000 tons, the highest figure reached

[1] Cf. p. 185.

[2] In 1923 the duty on the export of tin brought in a revenue of 7,872,791 Straits dollars. We have already noted (Chap. IV, p. 110) that there is an additional, protective, duty on tin-ore, unless it is exported under a guarantee that it is to be refined within the British Empire.

since 1915, of which it sent 58 per cent. to the United States, and 14 per cent. to the United Kingdom. In the same year the Non-Federated States produced over 2,000 tons, and the Dutch East Indies 31,500 tons. Hence British Malaya and the Dutch East Indies together produced some 79,500 tons out of an estimated world production of 143,500 ; *i.e.* 54 per cent.[1]

This latter figure represents an increase in actual production, but a decline in the proportion of the world's total output, owing to the rise of Bolivia as a tin producer of first-rate importance.[2]

The following table gives the estimated production of the most important tin-producing areas since 1923.[3]

—	1923.	1924.	1925.	1926.
Malay States	39,500	46,500	48,000	48,000
Dutch East Indies	29,000	30,000	31,000	31,500
Bolivia	29,500	30,000	33,000	32,000
Siam and Borneo	9,000	9,000	8,000	8,000
China	8,000	7,000	9,000	6,500
Other countries	12,500	13,500	14,500	15,000
Total (tons)	127,500	136,000	143,500	141,000

Most of the tin-ore in Malaya is alluvial, although there is some lode-ore in Pahang. The tin-bearing gravels and alluvials are excavated by hydraulic sluicing or pumped out by gravel pumps, and the heavy tin-ore is separated by the action of running water. Dredging with buckets (on a continuous chain) is also used where conditions are suitable. In many Chinese-owned mines the final process called " dulang " or " panning " is still done by hand, and consists of shaking the tin in a shallow wooden dish which causes the (heavy) tin to remain in the dish when the (lighter) rubbish is shaken out. The primitive extensive methods of working the mines employed by the Chinese, who are still responsible for about 60 per cent. of the total output of British Malaya, are very wasteful and have tended to exhaust prematurely the richer, more easily worked,

[1] Cf. Memorandum No. 22, March 1927, *Stocks of Staple Commodities*, p. 12 (London and Cambridge Economic Service).

[2] Bolivia's output rose from 10,000 tons in 1900 to 22,750 tons in 1910 and 32,000 in 1926.

[3] Cf. Memorandum No. 22, March 1927, quoted above.

and more accessible mines. In the future, if tin-mining is to be carried on profitably, scientific methods will have to be more exclusively utilised, and in particular recourse will have to be made to the dredging of low-grade ground.[1]

The bulk of the labour in even the European-owned mines is Chinese, of whom no less than 92,000 (including 12,000 "dulang" women) were employed in 1921.[2] Coolies are still recruited in China, although the indentured system was abolished in 1914.[3] They work for a small daily wage (free housing and food also being supplied), or by contract,[4] or on what is called the tribute system. The mine owner, under this latter system, which had become popular even before the abolition of indentures, secured the services of a manager, to whom he advanced capital, and who in his turn made advances to the coolies whom he recruited. A tribute to the owner (including the repayment of advances and interest on those advances), a minimum salary to the manager, and subsistence wages to the coolies form a first charge on the profits of the mine, any surplus profits being divided between the three parties concerned.

An eight hours day is usually worked in the mines, with extra pay (for wage-earners) for over-time.

The tin ore, after it has been mined and cleaned, is bagged and sold to a local tin-ore buyer, who may be either a Chinese trader or an agent (European, Chinese or Malay) [5] of one of the two great tin-smelting companies, the "Straits Trading Company" and the "Eastern Smelting Company." Almost the whole of the ore [6] is taken to the refineries of one of these two companies at Singapore or Penang. Even the tin smelted locally by the Chinese is finally sent to Singapore or Penang to be refined. The resulting "Straits Tin" is of very fine quality, averaging 99·9 per cent. pure tin.[7]

[1] A short account of the different types of machinery employed in tin-mining is given in the pamphlet *Mining in Malaya*, p. 42. Note the project for which a grant has been made under the Trade Facilities Act, for developing hydro-electric power for the Kinta Valley and neighbouring tin-fields. (Cf. *Trade and Engineering Supplement of the "Times,"* May 21, 1927.)

[2] Cf. pamphlet, *Mining in Malaya*.

[3] Cf. Chap. V, p. 148.

[4] A Chinese contractor is paid so much for each unit of ground cut and carried away, and is responsible for obtaining coolies.

[5] Cf. *Tin and Tin Smelting in Malaya*, 1924, published by the Eastern Smelting Company, Ltd.

[6] Except about 12 per cent. which is smelted locally.

[7] Cf. pamphlet *Mining in Malaya*, p. 50.

The (privately owned) tin mines of Billiton and Singkep are worked mainly by means of contracts with Chinese kongsies, the output being sent to Singapore to be smelted.

The Banka tin-mines are, however, Government owned and worked,[1] smelting is done in simple blast furnaces on the spot, and the tin is sold in Batavia, whence it is shipped mainly to Europe.[2] Banka tin is exceptionally pure, and modern mining machinery and processes have been adopted, under the supervision of European mining engineers.[3]

The world-wide commercial depression of 1920–21 led in the tin industry, as in most others, to a fall in prices and a threatened glut in the market.[4] In this case a restriction of exports was secured by the Bandoeng Agreement formed in 1920 by the Straits Settlements and Dutch Indies Governments, whereby heavy stocks of tin were purchased by the Governments and retained within the countries of production until a revival in prices took place. This agreement lasted until 1925, by which time the last lots of tin held up in this way had been released. In this way serious over-production was prevented, without any extensive closing down of mines. Owing partly to this arrangement, and partly to the decline in tin from China, stocks have been reduced (from an estimate of 45,400 tons at the end of 1922 to 18,500 tons at the end of 1926)[5] and the price of "spot tin" has risen to a profitable level.[6] It has been stated that in 1926, had it not been for the slump in Germany and the coal strike in England, and again in 1927, had it not been for the lull in the American motor industry, due to the reorganisation of Ford's works, there would have been an actual shortage of tin.[7] In any case the majority of the tin-mining companies (as well as the two great smelting companies) are in a very strong financial position,

[1] The Government ownership and management of the Banka tin-mines arose out of an old agreement between the Dutch East India Company and the Rajas of Palembang, who previously owned the island.

[2] Cf. *Handbook of the Netherlands East Indies*, 1924, and Memorandum No. 22, March 1927, *Stocks of Staple Commodities*.

[3] The Banka mines are open, and the overburden is removed with the aid of mechanical or hydraulic sluicing.

[4] Cf. Memoranda Nos. 1, 12, 16, and 22, *Stocks of Staple Commodities*.

[5] Cf. Memorandum No. 22, March 1927, *Stocks of Staple Commodities*.

[6] In 1924–25 the price averaged about £250 per ton (cf. "Empire Mining Number" of the *Mining Journal*, July 18, 1926).

[7] Cf. Memorandum No. 22, March 1927, and *Times*, Dec. 7, 1927, "London Tin Syndicate."

at least as far as the members of the great "London" and "Redruth" groups are concerned.[1]

[1] The financial position of the members of these two great groups is outlined in an article entitled, "Tin Mining in the Federated Malay States," in the Empire number of the *Mining Journal*, June 21, 1927. The London Tin Syndicate has recently obtained an interest in "Tin Investments, Ltd.," and the latter Company has acquired all the assets of "Alluvial Tin (Malaya), Ltd." In view of these changes and of the bright prospects the London Tin Syndicate has increased its authorised capital by £350,000 (cf. *Times*, Dec. 7, 1927, "London Tin Syndicate").

CHAPTER VIII

CONCLUSIONS

In the foregoing chapters we have briefly analysed the trade of the Indian Ocean, both as a unit, and from the point of view of each of the principal commercial areas. We have also reviewed several particular lines of trade which are of outstanding importance, and the prevailing methods of commercial organisation found therein. In addition, some of the most striking present-day problems affecting the trade of the Ocean—such as the labour problem, and the problem of " over-production " —have incidentally been discussed.

It remains to summarise the broad conclusions to which this analysis points, and in particular to attempt to indicate more definitely the general trend of commercial development in the areas under consideration.

The conclusion was reached in Chapter II, and emphasised and exemplified in Chapters III and IV, that the chief commercial characteristic of the Indian Ocean is that it is a great source of supply of the raw materials and foodstuffs that are in great and increasing demand by the industrialised countries of the West. It was also pointed out that in almost every case the great ports of the Ocean have a large excess of exports over imports, even when allowance is made for a considerable net importation of the precious metals. This excess of exports may be explained partly, at least, by the fact that the main commercial areas of the Ocean are still economically undeveloped in comparison with those countries with which they carry on a large proportion of their foreign trade, and upon which they consequently depend for much of the capital, enterprise, commercial and scientific services with which their development is being undertaken. The important question here arises whether or no these regions will cease to supply such large quantities of raw materials and foodstuffs to the

West if, or when, they attain a higher stage of economic development. In other words, to what extent does the existing type of trade between the Indian Ocean and the rest of the world depend upon the relative economic backwardness of the main commercial areas of the Indian Ocean ?

Although in India several large-scale industries have already been established, and the recent adoption of a policy of protection and of industrial stimulation may in the future diminish the preponderance of agriculture, everywhere else within the ocean climatic and other fundamental environmental factors render it inevitable that agriculture—in the widest sense of the term [1]—will remain, within any period that may be considered to enter into "practical economics," the principal employment of the people, and (together with mineral production) the main source of wealth. Such an assertion may be considered almost platitudinous with reference to the tropics, and it is clear that the existing climatic, social and transport conditions render it equally true of Persia and Iraq. Hence throughout the greater part of the Indian Ocean the present type of exchange with the rest of the world may be expected to continue, and in consequence commercial expansion may be said to be bound up with agricultural progress.[2]

This obvious conclusion has only been emphasised because it leads us to consider the possibilities of agricultural improvement.

There are two main reasons which suggest that the prospects of agricultural improvement, and therefore of commercial expansion in these areas are, at the moment, extraordinarily favourable.

The first is the likelihood that the demand from the West will continue to expand, as most Western countries are becoming progressively less able to satisfy their own needs for agricultural produce.[3]

[1] In this sense, agriculture includes forestry, and even fishing. "Agriculture in the tropics is, in short, synonymous with the employment of the population, and its study includes that of their food, clothing, housing, and general well-being" (*Report on Tropical Agricultural Research in the Empire*, 1927, p. 12, published by the Empire Marketing Board).

[2] For the moment I ignore the mineral industries, which stand on a special footing, and are therefore hardly relevant to the particular argument.

[3] It has been well said that "the luxuries of yesterday have become the necessities of the masses of to-day" (*Report on Tropical Agricultural Research in the Empire*, 1927, p. 17).

The second is that the knowledge now exists, and will certainly be greatly augmented in the near future, that, if extensively applied, would increase the output and improve the quality of agricultural production in these areas out of all recognition.

This optimistic, yet unhesitating, assertion is based upon the splendid results of recent scientific research, and upon the fact that for the first time in British Imperial History a real attempt is being made to organise and co-ordinate both tropical agricultural research [1] and the marketing of Empire produce. In addition more attention has recently been paid in various countries, especially Great Britain, to the study of the tropics (and allied territories) as markets, which should tend to expand their trade on the import side.

These three lines of development demand more detailed consideration, which will complete our picture of the outstanding tendencies and potentialities of the trade of the Indian Ocean. In view of the world-wide nature and influence of the British Empire, they will necessarily be considered mainly from the point of view of the Empire.

In the West, since the end of the eighteenth century, agriculture has undergone a complete metamorphosis. This started with a revolution in land tenures that, accompanied by a great expansion of demand, led to the adoption of intensive cultivation, which was furthered by the application of capital to farming, the use of machinery and power for agricultural purposes, and the extension of agricultural engineering.

Eventually the whole modern science of agriculture, including the marketing of agricultural produce, was developed. The knowledge gained has been based upon the study of the breeding of plants,[2] insect pests, plant diseases, the constitution of the soil, the principles of irrigation and manuring, harvesting processes, and methods of preparing and transporting produce.

Not till the second half of the nineteenth century were attempts made, on an appreciable scale,[3] to introduce improved

[1] The Dutch have been pioneers with regard to such research, but their work has, naturally, been mainly limited to the Dutch East Indies.

[2] It has been calculated that insects consume some 10 per cent. of the world's crops, and destroy perhaps 20 per cent. of the crops grown in the tropics (*Report on Tropical Agricultural Research*, 1927, p. 10).

[3] Tentative and isolated efforts, of course, occurred earlier. For instance,

crops and better methods of cultivation into the tropics and into India, and even then the mistake was made of trying to extend, without modification, the knowledge gained or cultures reared in the West, to the entirely different environment provided by the areas concerned. Many disheartening failures occurred, particularly with regard to the introduction of exotic plants.

Eventually it was realised that research and experimentation on a field scale must be carried out in the localities themselves before it was safe to attempt the commercial production of improved varieties or the adoption of new methods of culture.

The " new angle of vision " with regard to tropical agricultural research was adopted in the United Kingdom during Joseph Chamberlain's tenure of the office of Colonial Secretary at the close of last century. In 1897 an Imperially aided agricultural research station was started in the West Indies, and in 1904 the Imperial Institute of Agricultural Research was established at Pusa in Bihar.[1] Since then institutions undertaking agricultural research, and colleges offering courses of training in agriculture have been established at many centres, and Agricultural Departments have been set up to introduce to the cultivators the knowledge thus gained. In addition, research has been undertaken at a number of institutions in England, and in 1913 and 1918, respectively, Imperial Bureaux of Entomology and Mycology were founded.[2]

This is not the place in which to review the nature of the work undertaken or the details of the results achieved.[3] All that can be said is that the discoveries already made, if fully translated into practice, would suffice to revolutionise agricultural production in the tropics and in India.

In the latter country the object has, from the start, been primarily to assist native cultivators. Elsewhere, for instance in Ceylon, attention has been directed largely towards im-

the East India Company attempted as early as the eighteenth century to introduce new cultures into India.

[1] This did not receive financial aid from the United Kingdom.

[2] Research work affecting agricultural production has also been undertaken at the Imperial Institute, South Kensington, where, in addition, the Imperial Mineral Institute (established in 1918) is located.

[3] For an account of the work done in India, cf. McKenna, J., *Agriculture in India*, and the *Annual Review of Agricultural Operations in India*. On Tropical Agricultural Research in general, cf. *Report on Tropical Agricultural Research in the Empire*," 1927, issued by the Empire Marketing Board.

proving crops produced under European control, but the idea has recently gained ground that this latter type of work should be undertaken mainly, as in Java, by the European settlers and planters themselves.[1]

The extension to planters of the scientific knowledge gained by research is child's play in comparison with its extension to the indigenous cultivators, but it is in the latter sphere that the most widespread results should eventually be achieved. It is here that the Co-operative Movement has a great part to play, both as regards the provision of agricultural credit, the spread of a knowledge of improved methods of cultivation, and the organisation of marketing.[2] In India, in 1924–25, some 6·2 million acres out of a total cultivated area of 226·9 million acres were under improved varieties of staple crops, which had been established by means of research carried out in the country. The profit per acre in many cases was doubled or trebled. In Malaya and Kenya improved native cultivation (except of rubber in Malaya) has hardly begun. In Uganda, it is true, the natives have been induced to adopt cotton cultivation, but the lack of adequate transport facilities, at present limits strictly the extension of this profitable and desirable new culture. In the Dutch East Indies progress has been particularly great in the sugar industry. No less than £100,000 per annum is spent on research in that industry alone, the whole cost being defrayed by the planters.[3] Such success has been achieved that it is said that the " balance of nature " which is often upset when more intensive methods of cultivation are first introduced, has been restored, so that pests and diseases are now kept under control by purely agricultural treatment, without the aid of entomologists and mycologists who are no longer needed on the scientific staff.[4]

Tropical medical research has developed side by side with tropical agricultural research, and with no less far-reaching economic, as well as social, results.

Tropical agricultural research has recently received a great

[1] Cf. *Report on Tropical Agricultural Research in the Empire*, 1927, p. 10.

[2] The Co-operative Movement began in India in 1904 and now includes a membership of three millions. The bulk of the societies are, however, still credit societies. The movement has now spread to many colonies, including British Malaya, but in all is still in its infancy.

[3] Cf. *Report on Tropical Agricultural Research in the Empire*, 1927, p. 11.

[4] *Ibid.* pp. 18, 22.

fillip from the organisation of the marketing of Imperial produce, to which we must now turn our attention.

This movement was started (after many years of unsuccessful agitation for closer Imperial co-operation in the economic sphere, that began at the end of the nineteenth century) at the instigation of the Imperial Economic Conference of 1923,[1] which recommended not only definite measures of Imperial preference, but the co-ordination of technical research, the co-operative dissemination of information, and the establishment of a permanent Imperial Economic Committee.

No immediate step was taken to translate this latter recommendation into practice, owing mainly to objections raised by the Canadian representatives. In 1925, however, it was decided to set up an Imperial Economic Committee, organised on the same lines as the Imperial Shipping Committee, to work, provisionally, on specific problems.[2] A sum of £1,000,000 per annum was allotted by the British Government for work of this type, in lieu of the measures of Imperial preference promised at the Conference of 1923, but subsequently dropped on account of the opposition of the electorate. This grant, which is non-surrenderable,[3] goes to the "Empire Marketing Fund," and is available for defraying the cost of the Imperial Economic Committee and of the Empire Marketing Board.

The latter body was constituted in May 1926, at the instance of the Imperial Economic Committee, of which it may be considered to be the executive organ. The object of the Board is to stimulate the marketing of home and Imperial produce in the home market, and its work, which is carried out by making grants to existing bodies, falls into three main divisions.[4]

(i) Scientific research.
(ii) Economic investigation and intelligence.
(iii) Publicity and education.

An interesting and important point to notice is that the grants made by the Board tend to evoke corresponding or complimentary grants from Colonial Governments and from

[1] Cf. Report of the Imperial Economic Conference, 1923, Cmd. 1990.
[2] Cf. General Report of the Imperial Economic Committee, 1926, Cmd. 2493, and Eighth Report, Cmd. 3018, 1928.
[3] *I.e.* any part of the grant not spent in any particular year can be carried forward.
[4] Cf. the series of Reports issued by the Empire Marketing Board.

private, or semi-private, corporations.[1] In 1927, no less than £230,000 was thus granted from outside sources.

So far the work undertaken by the Empire Marketing Board has dealt chiefly with the staple products of the self-governing Dominions, but in the future it will be extended to the products of all parts of the Empire.

Two further steps with regard to agricultural research were taken in 1924 and in 1927, when, in the first place, a Committee was appointed to report on "Agricultural Research and Administration in the Non-Self-Governing Dependencies,"[2] and in the second place, an "Imperial Agricultural Conference" was held in London. The Committee of 1924 recommended (*a*) that a central clearing house should be established in the United Kingdom to which full reports on their work should be sent by all scientific agricultural workers in the colonies; (*b*) that the existing arrangements for recruiting agricultural officers for the Colonies should be improved[3]; (*c*) that a chain of central research stations should be established throughout the Empire; (*d*) that a permanent Advisory Committee for Colonial Agricultural Research should be established in the United Kingdom; and (*e*) that the Amani Institute, Tanganyika, should be reconstituted.[4]

These recommendations were adopted by the Colonial Office, and in due course are to be put into force.

Finally we must consider the general trend of the import trade of the main areas of the Ocean, and the progress that has recently been made in the study of these areas as markets for foreign, particularly British, produce.

The first point that emerges in this connection is that the best way to increase the consumption of foreign goods in these areas is to improve the standard of life of the inhabitants, and, in particular, to develop transport and communications.

On the whole, it can undoubtedly be said that all the main commercial areas of the Indian Ocean tend to become ever more valuable markets for the staple exports of the chief industrial nations of the world, especially for (*a*) the plant,

[1] Such as the Empire Cotton Growing Corporation.

[2] Cf. the Report issued in 1927, Cmd. 2825. India was not included.

[3] There is a great shortage of suitable trained workers of the requisite calibre.

[4] This Institute was established by the Germans early in this century, but fell into disuse during the war.

machinery, tools, and packing materials needed by the plantation, mineral and (in India) factory industries of the areas under consideration; (*b*) the numerous goods needed for the extension and improvement of transport and communications, including motor vehicles and fuel oil; (*c*) hardware, cutlery and miscellaneous manufactures; (*d*) canned and preserved foods; (*e*) manufactured tobacco and liquors; and (*f*) in some cases the clothing of both the European and native populations.[1]

Although the total consumption of foreign goods in the Indian Ocean tends to increase, the share taken by particular countries has altered considerably since before the War, and, in particular, that of the United Kingdom has declined. During the War, as was only to be expected, European goods were to a great extent diverted from the Indian and neighbouring markets, whilst the United States and Japan had an opportunity of stepping into the breach. Although since the cessation of hostilities some reaction has occurred in this respect it seems that both the United States and Japan have permanently increased their share of these markets.

The changes in the United Kingdom's share of the import trade are illustrated in Figs. 16 (p. 73), 18 (p. 99), 19 (p. 105), 21 (p. 14), and 23 (p. 120), which show that Persia is the only exception to the general rule that there has been a decline.[2] The most serious decline is in the United Kingdom's share of India's import trade (which fell from 63·0 per cent. before the War to 48 per cent. in 1926–27), and here, as we have seen,[3] the proportionate decline indicates a heavy fall in actual quantity.

Nevertheless, if the standard of life of the people of India can be raised, even slightly, there is no reason why Great Britain should not obtain a share of the probable consequent increase in consumption of foreign goods, even though these goods may not be of the same type as those that have formed the bulk of Great Britain's exports to India in the past.[4]

[1] The export of Lancashire piece-goods to India is, as we have seen, an important exception, as it has seriously, and apparently permanently, declined owing to increased competition from the Indian and Japanese cotton mill industries.

[2] The United Kingdom's share in the import trade of Iraq and British East Africa has increased, but this is not shown in the Diagrams.

[3] Cf. Chap. III, p. 74.

[4] For instance, artificial silk goods may to some extent replace cotton goods.

Elsewhere the relative decline does not indicate a serious setback, if any, in quantity, as the total volume of the import trade of the other areas has increased. British goods hold a very strong position in the Dutch East Indies, where Britain has greater financial interests than any other country except Holland, and although the United Kingdom has lost in certain lines of trade, such as tin-plate,[1] she has gained in others, such as machinery, in which German rivalry has been reduced by the closing down of the German works at Cheribon.

Holland's share of the import trade of the Dutch East Indies has also declined, although possibly not the actual volume of trade.[2] Both the United Kingdom and Holland will evidently have to meet stronger competition than ever before in markets where formerly they held an almost monopolistic position.

Japan and the United States seem to have permanently strengthened their hold on the markets of the Ocean,[3] partly owing to the introduction of closer commercial connections during the War. The United States, as we have seen, tends to consume more and more of the products of these areas, which in itself tends to produce closer commercial connections, and has also gained from the increased consumption of motor vehicles and fuel oil in these areas.

Germany, for her part, has recently just about regained her pre-war share in many of these markets.

In the past German and Japanese commercial methods have been particularly well adapted to the markets of the Ocean. German and Japanese merchants study closely the wants of the native populations, and make every effort to stimulate the consumption of their goods by means of suitable advertisements and quotations.

In all markets of this type the demand of the native population is for quantity and cheapness, rather than for quality,[4] and it is necessary for merchants to keep in continual and close touch with the consumers, by means of local branches or

[1] In the tin-plate trade the United Kingdom used to supply 98 per cent. of the tin-plate imported, but in 1926 her share fell to 70 per cent., whilst that of Holland had risen to 22 per cent. (cf. P. Coote, *Handbook of the Netherlands East Indies*, p. 29).

[2] Cf. Fig. 21, p. 114.

[3] Cf. especially Figs. 16 and 19, pp. 73 and 105.

[4] Cf. P. Coote, *Handbook of the Netherlands East Indies*, p. 16.

agencies. Prices should also be quoted in the currencies of the country, and should be made on a c.i.f., not an f.o.b., basis.[1] Catalogues should be printed in the vernaculars, and include prices worked out on the most suitable basis for the particular locality.

Until quite recently British traders have tended to be rather rigid and unaccommodating, and have neglected the systematic study of markets.[2] During the last few years they have made strenuous efforts to improve their methods, and in addition more and better official reports are published. The reports of the Department of Overseas Trade have been extended and improved, and a number of useful handbooks have been published, either at the instigation of officials or under the auspices of commercial associations.[3]

The publicity work of the Malay States Information Agency [4] may also be mentioned in this connection, with special reference to the information provided as to the openings for planters and traders in Malaya, and the conditions under which land can be procured.

Indian traders have been assisted in finding markets overseas by the appointment of an Indian Trade Commissioner, in London, since 1920. Queries are answered, special investigations are undertaken, information is compiled and reports are issued by the Commissioner, whose business it is to watch carefully the general commercial situation.[5]

It appears, however, that both British and Indian traders have still some leeway to make up with regard to "push" and "advertisement," in comparison with their American, Japanese, and German rivals.

In conclusion, the general trend of commercial development in the Indian Ocean can be summarised by saying that, in the more developed areas, the strong pre-war tendency to all-

[1] "C.i.f." means including "cost, insurance, freight," whilst "f.o.b." stands for "free on board."

[2] Note, for instance, the much greater number of commercial reports issued by the United States. For a study of the commercial methods adopted by the traders of various nationalities in India, cf. *D.O.T. Report on the Conditions and Prospects of British Trade in India after the War*, 1919.

[3] Cf. for instance, the *Handbook of the Netherlands East Indies*, by P. Coote, issued under the auspices of the British Chamber of Commerce for the N.E.I., and C. W. E. Cotton, *Handbook of Commercial Information for India*.

[4] This Agency has recently moved to new offices at 57, Charing Cross.

[5] Cf. Reports of the Indian Trade Commissioner, 1920, 1922, 1924, and 1926. (Published from 42, Grosvenor Gardens, S.W.)

round expansion, though temporarily checked by the War, has since been resumed, but that competition has become much keener in both the export and import trade. International rivalry has increased with regard to both production (*e.g.* between Dutch and British planters in the rubber industry), control over supplies of raw materials (*e.g.* again, in the rubber industry), and markets (*e.g.* between Indian, Japanese and British producers in the cotton piece-goods trade). In the less developed, or undeveloped, areas, the potentialities of expansion are extremely promising, especially now that the need for improved transport has been fully realised, although the probable extent and pace of development can hardly yet be gauged.

Finally it may be noted with satisfaction that the relations between European and indigenous producers and traders have entered upon a new phase, which should prevent that unjust exploitation of defenceless labour that has, in the past, stained so many of the pages of the history of colonisation. It is to be hoped that in the future it will be found possible to reconcile the interests of the various races and classes concerned to an extent that has not been achieved, or even attempted, in the past.

APPENDIX A

THE TRADE OF PORTUGUESE AND FRENCH POSSESSIONS IN INDIA

DETAILED and up-to-date figures are difficult to obtain for the trade of the possessions of foreign (*i.e.* non-British) countries in India, but the following tables give the latest available information.

Portugal and France are the two foreign countries with possessions in India. Portugal possesses the Province of Goa (1,301 square miles, and a population of 508,058 in 1921), situated within the limits of the Bombay Presidency; the territory of Daman, together with the small pargana of "Nagar Avely" on the Gujarat Coast; and the Island of Diu (together with Gogla and Simbor on the Kathiawar Peninsula). Of these the Province of Goa is by far the most important, but, although in the past it was the centre of European commerce in India, its trade has now sunk to insignificance. The present capital is Nova-Goa (old Goa being five miles distant), which has a fine harbour, the anchorage at Mormagao being open all the year round. Goa is connected by rail with the Madras and South Mahratta railway, and exports coconuts, betel nuts, and fruit (especially mangoes), but its transit trade is greater than its own import and export trade.

The following table gives the latest official statistics: [1]

TRADE OF PORTUGUESE POSSESSIONS IN INDIA, 1920.

	Imports.	*Exports.*
Foreign Trade [2]		
Merchandise . .	Rs. 10·9 lakhs	Rs. 0·2 lakhs
Treasure . . .	Rs. 0·3 ,,	—
Total . . .	Rs. 11·2 ,,	Rs. 0·2 ,,
Coasting Trade		
Merchandise . .	Rs.1,31·43 ,,	Rs.42·9 ,,
Treasure . . .	Rs. 0·07 ,,	—
Total . . .	Rs.1,31·5 ,,	Rs.42·9 ,,
Total Foreign Trade (Imports and Exports) .		Rs.0·11 crores
Total Foreign and Coasting Trade (Imports and Exports)		Rs.1·8 crores

[1] Cf. *Trade of the Portuguese Possessions in India, 1916 to 1920*, published in 1925 as a Supplement to the *Annual Statement of the Sea-Borne Trade of British India.*

[2] *I.e.* outside India.

The following figures for 1923, are given in the Indian Year Book (1927):

Total Imports	Rs.1·64 crores
Total Exports	Rs.0·39 ,,
Re-exports	0·04 ,,
Transit Trade (both ways).	Rs.2·99 ,,
Total	Rs.5·06 ,,

French possessions in India include five settlements, with a few "dependent lodges or plots," [1] comprising in all 203 square miles and a population of 273,081, in 1921. The five settlements are at Pondicherry, Chandernagar (Lower Bengal), Mahé (Malabar Coast), Karikal (Coromandel Coast), and Yanam (North Madras). Paddy, ground-nuts and ragi [2] are the principal crops, and the chief export is oilseeds. There are three cotton mills at Pondicherry, and a jute mill at Chandernagar. The following table gives the value of the overseas trade: [3]

TRADE OF FRENCH POSSESSIONS IN INDIA.[4]

Unit.	1924.		1925.	
	Imports.	Exports.	Imports.	Exports.
Million francs .	37·4	49·2	45·5	54·7
£1,000 . . .	438·9	577·4	443·5	533·1
Rs., lakhs . .	65·8	86·6	59·1	71·0

[1] *Indian Year Book*, 1927, p. 218.

[2] A small millet.

[3] No distinction is drawn in these figures between "foreign" and "coastal" trade.

[4] Cf. *Annuaire Statistique Republique Francaise*, 1926, p. 179. In 1924 and 1925 respectively the average rate of exchange was 85·2 and 102·59 francs to the pound sterling. Pounds have been converted into rupees at the rate of 1*s.* 4*d.* for 1924 and 1*s.* 6*d.* for 1925.

APPENDIX B

THE INDIAN IRON AND STEEL INDUSTRY

UNTIL the end of the nineteenth century small-scale iron-ore smelting works, utilising charcoal for fuel, were scattered throughout India, wherever easily accessible iron-ore deposits were to be found. In spite of various attempts to introduce more modern methods and a larger-scale of production, little or no progress was made until the Bengal coal-fields had been opened-up and rich iron-ore deposits were found in their immediate neighbourhood.

The great step forward was taken at the end of the century, when Mr. Jamshedji Tata financed pioneer survey work in Bengal and Bihar, with the object of establishing a large-scale iron and steel industry.[1] After his death (in 1903), the work was carried on by his sons, who, in 1907, formed the "Tata Iron and Steel Company Ltd.," with a capital of Rs.2,31 lakhs, raised in India, and began to construct works at Sakchi, a small village in Bihar, 155 miles west of Calcutta. This spot was chosen as the most favourable point of assembly of the main raw materials: *i.e.* coal from the Jherria coal-fields (115 miles distant), iron-ore from the company's own iron mines at Gurumaishine[2] (45 miles distant), and dolomite and other fluxes and refractory materials (40 miles distant).[3]

At about this time new and rich iron-ore deposits were found in the Singhbhum district of Orissa, from which province the bulk of India's iron is now obtained.

The railway, which previously did not touch Sakchi, was extended to the Tata Works, and the name of the village was changed to Jamshedpur, in honour of Mr. Jamshedji Tata. A large town has now grown up around the works, and many bye-industries have been started in the neighbourhood. The industry was encouraged by the Government, which undertook to buy 20,000 tons of steel rails per annum for a period of ten years; and which secured freightage concessions on the railways for the raw materials needed by the firm.

[1] The Tata Iron and Steel Company is the only producer of steel in India, but one or two other companies also produce pig-iron.

[2] This ore is excellent in quality, containing 60 per cent. of metallic iron.

[3] Some fluxes and refractory materials are imported.

The works were originally designed to produce 120,000 tons of pig-iron, 85,000 of which were to be converted into 72,000 tons of steel. This compared with an annual import of 450,000 tons of steel goods. Production actually began in 1913, and by 1916–17, the original plant was in full operation. During the War, owing to the difficulty of obtaining imports, the company found itself in a more or less monopolistic position, but its profits were limited by long-term contracts at comparatively low prices, which it made voluntarily with the Government. Between 1907 and 1923 profits attained an annual average of 7·05 per cent. on all classes of shares.

In 1916, the so-called "greater extensions" were planned. Although the original intention was that they should be completed by 1920, unforeseen delays occurred, owing to the war and post-war world-wide competition for the necessary plant and machinery, so that in fact they were not completed until 1925. Moreover, as for several years tip-top prices had to be paid for the necessary imports, the cost of construction naturally proved far greater than had been anticipated. The company therefore found itself involved in extremely heavy capital expenditure, whilst at the same time returns from the "greater extensions" were long delayed.

In 1921, with the world-wide commercial depression, the slump in iron and steel prices began. Profits therefore fell, and in 1923–24 dividends could not be paid even on the First Preference Shares. The fact was that the productive power of the steel industries of the world had been enormously extended since 1914, whilst demand for steel goods had fallen far below the 1914 level. European countries were therefore desirous to sell their goods even at prices which did not cover the cost of production.

The Tata Iron and Steel Company was threatened with extinction. The steel industry was therefore the first whose claims for protection were examined by the Tariff Board that had been set up in accordance with the recommendations of the Indian Fiscal Commission of 1921–22. After an exhaustive inquiry the Tariff Board recommended raising the existing duties (of 10 or 15 per cent.) on imported steel goods to an average of 33⅓ per cent.—*i.e.* almost exactly what had been asked for by the Tata Company.[1] The Steel Industry (Protection) Act of 1924 embodied this proposal, and in addition bounties were granted on the production of rails, fishplates, and railway wagons.

This Act was followed by an immediate fall in the price of steel imports, due in the main to the rise of the exchange value of the rupee from 1*s.* 4*d.* to 1*s.* 6*d.* On this, and on a subsequent occasion,

[1] This recommendation was based on the estimate that an average price of Rs.180 per ton was necessary to enable the Tata Company to keep going, whilst actually the average price of imports was Rs.140 per ton.

further inquiries were held by the Tariff Board, and bounties were granted in addition to the existing duties. Finally, in 1927, after the Tariff Board had again reviewed the whole situation, a new Act was passed imposing basic duties, at slightly lower rates than those imposed in 1924, for a period of seven years, and additional duties (which could be altered, if necessary, by the Government without further legislative action) on non-British steel. Foreign steel now pays higher duties than in 1924.

By means of this protection the Tata Iron and Steel Company has been enabled to weather the storm, and since 1925 its position has steadily improved, and its output has increased. The following figures show the output in 1925–26, 1926–27 and 1927–28 (in tons) :—

	1925–26.	1926–27.	1927–28.
Pig-iron	573,000	612,775	644,298
Steel ingots	470,000	530,473	599,565
Finished steel	319,957	374,221	408,343

It has been estimated that eventually an output of 780,000 tons of steel ingots, and 560,000 tons of finished steel, should be attained.

India is the cheapest producer of pig-iron in the world,[1] but loses this initial advantage in the later stages of the production of steel. Moreover, the output of finished steel at the Tata Works is still unduly low in proportion to the plant at work, which renders the overhead charges excessive. The company is undoubtedly over-capitalised, owing to the high costs and delays involved during the construction of the "greater extensions," and there are also difficulties in connection with the labour supply, of both the supervisory, technical and manual classes. It should, however, be possible to overcome all these difficulties, in course of time, and it is hoped that at the end of the seven-year period for which the new protective duties have been granted, the industry will be able to stand on its own feet.

[1] Cf. *Asiatic Review*, Oct. 1921, "The Production of Pig-Iron in India," by Glen George, and the four Reports of the Tariff Board on the Indian Steel Industry.

APPENDIX C

" OVER-PRODUCTION "

My attention has been called to the need for defining with more exactitude than is usually attempted the term " over-production," used not in relation to industry in general (as a possible explanation of cyclical fluctuations), but in relation to the conditions prevailing in one or more particular industries.[1]

In common commercial parlance the term is used in a loose and rather vague manner to denote the existence of a mal-adjustment between supply and demand, over a relatively long, but undefined, period,[2] which results in a fall in the profits of a large proportion of the producers below what is deemed to be a " reasonable " level, in spite of an increase in consumption, but which does not prevent an increase in total production, severe competition, or the rise of new producers.

This definition obviously excludes mal-adjustments due to a decline in demand, however caused (for instance, by a change in habits or fashion, or by the introduction of a substitute), or extreme inelasticity of demand.[3] Mal-adjustments due to a general increase in the costs of production of the industry concerned should also be excluded. By a " reasonable " level of profits is indicated one that

[1] Most economists appear to agree that the theory of general over-production, except as a temporary phenomenon explaining (or partly explaining) cyclical fluctuations, implies an absurdity and is untenable. Cf. *Economic Journal*, March, 1928, " Productivity Theories of the Trade Cycle," by James Southworth. It is controversial to what extent (if at all) over-production is a cause of cyclical fluctuations, but this problem is distinct from the one discussed in this note.

[2] Short-term mal-adjustments, due to obviously temporary causes, are excluded from consideration in this context. The actual period considered to constitute a " short-term " varies from industry to industry, in accordance with differences in the conditions of production and with temporary changes in consumption. Thus a " glut in the market," owing to the coincidence of bumper harvests in any one year in all the main producing areas, would not be considered to indicate " over-production," although it might cause, temporarily, a great fall in both prices and profits.

[3] Absolute inelasticity of demand is seldom, if ever experienced, but if any industry is suffering mainly from extreme inelasticity of demand the problem involved will hardly be classed as due to " over-production." The degree of elasticity of demand naturally affects the probability (or the reverse) of over-production.

is not less than that obtained from alternative investments open to capital and enterprise.

Temporary over-production is liable to occur in any industry in which total production is increasing, whenever the elasticity of demand is insufficient to increase total sales to an extent that will enable the producer to obtain compensation, by means of an increase in turnover, or the economies due to production on a larger scale, for the reduction in profit per unit sold. Usually such a state of affairs will check production and lead to the formation of a new equilibrium at an altered price-level, but the formation of a new equilibrium may be delayed in a number of ways. For instance, it takes longer in some industries than in others to adjust production to demand. In the rubber industry it takes five or six years for new plantations to mature, and longer before maximum output is attained. In the absence of co-ordinated control over the laying out of new plantations a period of high prices and profits in the rubber industry is likely to lead to such an extension of planting as must, eventually, produce a glut. When the new plantations have matured total production can only be reduced by a reduction in the area tapped, or in the intensity of tapping, which—when carried beyond a certain point[1]—is equivalent to working short time, or laying up a proportion of the fixed capital. This inevitably increases the overhead or capital charges. In many other industries also it is difficult to vary the rate of production without unduly increasing capital costs,[2] the loss varying in proportion to the amount of fixed capital involved.

The length of time required to adjust production to demand also varies roughly in proportion to the difficulty experienced in any particular industry in diverting productive power to other industries. Here, again, the delay will be greater the more fixed capital there is.

These, and other similar considerations, explain how it is that in certain industries a "temporary" glut may extend over a considerable period of years, but they throw no light upon the problem of "over-production" proper. Under conditions of relatively free competition[3] new competitors will be deterred from entering

[1] More scientific (and less frequent) tapping results—up to a point—in increased production per tree and to an increase in the period during which tapping can be practised without exhaustion.

[2] For instance, in many plantation and mining industries the labour force cannot be dismissed and re-engaged at will, but must be continuously maintained. Otherwise (apart from other difficulties) the expense of recruitment will be incurred whenever it is desirable to increase production again.

[3] That is, where the industry is not in receipt of any subsidy or assistance from outside sources which enables producers to maintain, or even increase, their output, in spite of the fact that the price obtained per unit sold is not sufficient to bring in a "reasonable" profit.

the industry (in any numbers), and established producers will, in course of some definite period (the actual length of which varies, as we have seen, from industry to industry), adjust their output to demand until once more a " reasonable " level of profits is attained.

What causes surprise and alarm is that, in some cases, in spite of the prevalence of free competition, and after making full allowance for the time required to adjust production to demand, although " reasonable " profits are threatened, yet new competitors are not deterred from entering the industry, and established producers continue to try to increase their output.

We have, therefore, to explain why new competitors believe they have a chance of earning satisfactory profits, and why established producers anticipate future gains that will recompense them for present losses.

The history of many industries shows that established producers often prefer to suffer present losses rather than relinquish their hold on the market when it appears likely that demand will eventually expand either at existing prices, or at a price which should give a reasonable profit to firms which can secure the economies of larger-scale production or the benefits of a more rapid turnover. These are the conditions that make for a period of cut-throat competition, entered into with the hope that the survivors may absorb the markets of their defeated rivals, and eventually control prices. Usually one of the results is the formation of amalgamations and combines. Movements of this nature have been so frequent during the last forty or fifty years, and have been so fully studied, that further comment is hardly necessary. During a period of excessive competition of this kind it is unusual for any considerable number of new competitors to enter the field. Where a prolonged, though in principle " temporary," glut in the market, leading to excessive competition and price-cutting, is accompanied by the entrance of a large number of new competitors, the problem of " over-production " becomes most acute, and is in need of special analysis and explanation. The conditions indicated are characteristic of the two industries which stand out prominently, at the present time, as afflicted by " over-production " ; that is, the rubber and oil industries. In both these industries the period necessary to adjust production to supply is obviously a long one ; in both there is reason to expect an eventual increase in demand which should yield attractive profits to surviving producers ; and in both the immediate diversion of capital to other uses would entail a heavy loss. But, in neither case is this the whole story.

The explanation of the alleged more or less permanent tendency to over-production is, to my mind, to be sought in two directions. In the first place, whilst in all industries, even under conditions

approximating to " equilibrium " (*i.e.* a normal rate of development), some firms prosper, and others decay, in certain industries the relative prosperity of particular units of production tends to change at an exceptionally rapid rate. Certain classes of producers, in particular new competitors, have an advantage over their rivals. In such cases a condition of approximate equilibrium, from the point of view of the industry as a whole, is consistent with an exceptionally rapid rate of change in the particular units of production.

Under such conditions it is difficult to judge whether " reasonable " profits are, or are not, being earned by the industry as a whole. The unsound position, or even failure, of many units of production may give a false impression, in which case over-production may be apparent, not actual. On the other hand, especially where the relative advantages of the more successful firms appear to be due to purely temporary phenomena—such as the large yield of new gushers, or the high yield of rubber-trees which are being over-tapped—established producers may have good reason to hope that, if they can hold out long enough, eventually they may regain their former prosperity. This prolongs the " temporary " glut over a very long period, and reduces the general level of profits in the industry below what might be expected from alternative investments.

In the second place it appears that the commercial world in estimating the profits obtained in any industry frequently attributes greater importance to certain producers than to others ; that is, the profits of a certain proportion of the producers are entirely ignored. Here, again, " over-production " may be only apparent. In the rubber industry the tendency undoubtedly is to confine attention to the declining profits of planters, whilst ignoring the large profits reaped by the increasing number of native producers. Similarly in the oil industry emphasis is laid on the declining prosperity of certain areas of production and of certain corporations. Both these industries have been suffering from a prolonged temporary glut, aggravated by exceptionally rapid changes in the relative prosperity of particular units of production, but it is doubtful whether any " permanent " tendency towards over-production has been manifested.

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TABLE I

GENERAL STATISTICS OF THE MAIN COMMERCIAL AREAS OF THE INDIAN OCEAN

Countries.	Area (square miles).	Population, 1921.	Density of population per square mile.	Exports of merchandise [1] 1923–24 (in millions sterling).	Imports of merchandise,[1] 1923–24 (in millions sterling).	Trade per head.[2]	Percentage of total trade of all areas (merchandise).
Aden (including Perim)	80	56,500	706	4	5		1·0 %
Iraq	116,500	2,900,000	25	2·8	5·8	£2·9	1·0 %
Persia	628,000	10,000,000	15	17·0	15·4	£3	3·4 %
India—							
British Provinces	1,094,300	246,946,793	—	—	—	—	—
Indian States	711,032	71,939,187	—	—	—	—	—
Total	1,805,332	318,885,980	177	242	158	£1·3	43·0 %
Ceylon	25,332	4,498,605[3]	187	23	19	£9·3	4·5 %
British Malaya—							
Straits Settlements[4]	1,600	883,769	514	83	89	£211	—
Federated Malay States	27,648	1,324,890	49	22	10	£24	—
Non-Federated Malay States	23,355	1,123,944	53	10	4	£12	—
Total	52,603	3,332,603	65	115	103	£79	23·3 %
British Territories in North Borneo	75,606	883,255	11	5·4	2·6	£9	0·8 %
Dutch East Indies—							
Java and Madura	51,000	35,000,000	671	75 9	38·9	—	—
Outer Provinces	600,000	15,000,000	29	52·5	17·7	—	—
Total	651,000	50,000,000	76	128·4[5]	56·6[5]	£3·7	19·8 %
British East Africa[6]	1,048,744	12,118,079	11	9·8	10·9	£1·8	2·2 %
Mauritius	720	376,680	530	4 8	5·2	£27	1·0 %
Grand Total	4,403,917	403,051,702	—	552·0	376·9	—	100 %

All figures are approximations only.

[1] On private and Government account.
[2] Merchandise and specie.
[3] Exclusive of military and of persons on ships in harbours.
[4] Including Labuan, Christmas Island and the Cocos.
[5] For the year 1924. Merchandise on Government account (amounting in all to £3·0 millions) is excluded.
[6] Including Kenya, Uganda, Zanzibar, Tanganyika, Nyasaland and North Rhodesia.

TABLE II

Currency and Measurement Equivalents

A.—*Currency*

Country.	Local currency.	English equivalents.
British India Aden Ceylon Mauritius Zanzibar Protectorate Iraq	Rupee [1] 12 pies or 4 pice = 1 anna 16 annas = 1 rupee.[2]	Till 1919–20, 1*s.* 4*d.* 1920–25 exchange fluctuated. Since 1925, 1*s.* 6*d.*
Kenya and Uganda Tanganyika	Shilling	1*s.*[3]
British Malaya and British Borneo	Silver dollar of 100 cents.	2*s.* 4*d.* (=0·5678 American dollar)
Netherlands East Indies	Silver florin, guilder or gulden, of 100 cents.	1*s.* 8*d.* (12·107 florins=£1)
Persia	Kran	Fluctuating value [4]

[1] N.B.—One lakh of rupees=100,000 (written Rs.1,00,000). One crore of rupees=10,000,000 (*i.e.* 100 lakhs, written Rs.1,00,00,000). To convert lakhs of rupees to millions of rupees, move the decimal point one place to the left; *e.g.* 120 lakhs =12·0 millions. To convert crores to millions move the decimal point one place to the right, *e.g* 12·5 crores =125 millions.

[2] In Ceylon the rupee is divided into 100 cents, and special subsidiary coins, 50 cents, 25 cents, and so on, are issued.

[3] Till 1920 the rupee (1*s.* 4*d.*) was the standard; from 1920 to 1921 the florin or rupee (2*s.*); since 1921 the standard has been the English shilling.

[4] In 1923–24 the rate of exchange adopted for statistical purposes was 45 krans per pound sterling. Before the War the usual rate was 50 krans per pound sterling. In 1925–26 the rate was 43·5 krans, and in 1926–27, 48·6 krans to the pound sterling.

TABLE II—*Contd.*

B.—*Weights and Measures.*

Country.	Local weights and measures.	English equivalents.
British India . . .	Ser (80 tolas).	2·057 lbs.
	40 sers=1 (standard) maund.[1]	82 lbs.
	Bale (jute and cotton).	400 lbs.
British Malaya and British Borneo.[2]	Picul (100 katties)	133⅓ lbs.
	Gantang.	Gallon.
Mauritius	Metric system in use.	
Dutch East Indies . .	Picul (100 katties)	136 lbs. (=61·76 kilogrammes).
	Gantang	9·714 lbs.
	1,000 kilogrammes or 1 metric ton.	2,200 lbs. (=$\frac{55}{56}$ long (English) ton of 2,240 lbs).[3]
	Bouw.	1·754 acres.
British East Africa . .	English measures quoted in official statistics.	

It is also useful to remember the following :—

8 kilometres	=5 miles.	1 hectolitre	=22 Imperial gallons.
0·4 hectares	=1 acre.	24 U.S. gallons	=20 Imperial gallons.[3]
1 cental	=100 lbs.	1 barrel (oil)	=42 U.S. gallons.
10 quintals	=1 metric ton (=2200 lbs.).	7 barrels	=1 long (English) ton.
		245 Imperial galls.	=1 long ton.

[1] The Bombay maund=28 lbs., and the Madras maund=25 lbs.
[2] British weights and measures are quoted in the official statistics.
[3] Approximately.

TABLE III

TRADE OF BRITISH INDIA. (Private Merchandise)

(In lakhs of rupees)

Imports.					*Exports.*[1]				
—	Pre-war quinquennial average, 1909–10—1913–14.	Post-war quinquennial average, 1919–20—1923–24.	1925–26	1926–27.	—	Pre-war quinquennial average, 1909–10—1913–14.	Post-war quinquennial average, 1919–20—1923–24.	1925–26.	1926–27.
Total	151,67	267,05	226,18	231,31	*Total*	224,23	306,38	374,84	301,43
Cotton and Cotton Goods	54,70	73,15	69,31	70,08	*Cotton and Cotton Goods*[2]	44,68	81,80	104,64	69,35
including Raw cotton	1,02	2,00	3,64	5,03	including Raw cotton	33,27	64,73	94,99	58,60
including Twist and yarn	3,77	9,32	7,76	6,62	including Twist and yarn	99,13	9,05	2,93	3,08
including Piece-goods & manufactures	45,23	61,81	57,89	58,43	including Piece-goods & manufactures	2,37	8,06	6,72	7,67
Sugar	13,17	19,98	15,83	19,16	*Jute, raw and manufactured*	42,45	60,68	96,78	79,96
Iron and Steel goods	11,17	21,00	18,06	16,72	including Raw jute	22,20	19,52	37,94	26,78
Machinery and Mill work	5,61	21,64	14,88	13,63	including Manufactures	20,25	43,15	58,84	53,18
Mineral oil	3,94	8,26	10,73	9,18	*Grain, pulse and flour*	45,81	32,82	48,03	39,24
Mechanically propelled vehicles	1,79[3]	4,79	4,48	5,09	*Tea*	13,06	26,92	27,12	29,03
Hardware	3,17	5,78	5,19	5,06	*Oilseeds*	24,36	23,53	29,63	19,08
Silk and Silk goods	3,94	5,73	3,74	4,59	*Hides and Skins* (raw and manufactured)	14,60	15,69	14,33	14,67
Railway Plant and Rolling Stock	6,11	12,07	4,99	3,26	*Lac*	2,20	8,41	6,90	5,47
					Metals and Manufactured Metal goods	0,54	2,55	4,92	4,93

[1] Excluding Re-exports.

[2] "Cotton and cotton goods" has been left in the position of the premier export, in spite of the fact that in 1926–27 it was surpassed in value by "Jute, raw and manufactured," because it is normally the chief item of export, and the figures of 1926–27 will probably prove to be exceptional.

[3] In the year 1913–14. The quinquennial average is not forthcoming.

TABLE IV

TRADE OF BRITISH MALAYA, INCLUDING THE STRAITS SETTLEMENTS, F.M.S., AND NON-FEDERATED MALAY STATES [1]

(In million dollars.)

Imports.	1924.	1925.	1926.	*Exports.*	1924.	1925.	1926.
Total Merchandise	653·3	967·9	1,003·8	*Total Merchandise*	720·4	1,281·7	1,262·5
Food, Drink and Tobacco	237·9	274·1	311·7	*Rubber* (almost entirely para-rubber)	271·7	763·0	727·2
including Rice	72·6	80·6	98·3	*Tin*	169·1	175·2	185·5
including Tobacco	30·0	37·8	35·5	*Food, Drink and Tobacco*	130·6	143·7	147·7
including Milk	10·0	13·7	15·8	including Rice	23·7	31·2	36·6
including Dried Fish	12·4	13·8	15·7	including Arecanuts	14·9	18·2	17·2
including Sugar	18·1	15·8	15·1	including Dried fish	14·5	14·1	15·1
Rubber (almost entirely para-rubber)	80·4	243·5	178·0	including Tobacco	13·2	14·8	12·2
Petroleum products	58·1	96·8	108·6	including Canned pineapple	8·8	8·2	7·6
Cotton Yarn and Manufactures	48·7	70·6	66·0	*Petroleum products*	28·1	66·5	70·3
Tin Ore	55·3	60·9	62·5	*Oilseeds, nuts, etc.*	42·2	42·1	47·6
Iron and Steel Goods	21·0	23·8	28·8	including Copra	32·6	32·1	36·9
Oilseeds, nuts for oils, oils, resins and gums,	24·5	24·7	28·5	*Cotton Yarn and Manufactures*	22·9	26·7	22·8
including Copra	12·9	13·0	15·1				
Vehicles	8·9	21·7	25·8				
Chemicals, Drugs and Dyes	13·7	15·6	22·2				
Machinery	8·7	13·0	19·6				
Coal	9·9	8·0	9·5				
Net Import Bullion and Coin	8·7	32·0	35·4				

[1] Excluding trade between the various colonies, and excluding bunker coal (405,665 tons in 1924, valued at 6·5 million dollars) and bunker oil (102,189 tons valued at 3·3 million dollars in 1924). Cf. "Returns of Imports and Exports for British Malaya." Details of bunker coal and oil are not given for 1925 and 1926. Figures on this basis are not available prior to 1924 (cf. note on p. 660 of the Return for 1924), but the League of Nations *Memorandum on Balance of Payments and Foreign Trade Balances*, 1911 *to* 1925, vol. ii, estimates, for 1913, total imports at 363·5 million dollars, and exports at 339·7 million dollars.

TABLE V

A.—Trade of the Straits Settlements in 1913, 1925 and 1926[1]

(In million dollars)

	Imports.				*Exports.*		
——	1913.	1925.	1926.		1913.	1925.	1926.
Total . .	459·0	1,305·4	1,320·0	*Total* . .	372·9	1,281·2	1,268·2
Para rubber .	14·9	470·2	389·9	Para rubber .	25·2	568·5	493·3
Tin ore . .	97·1	148·3	160·7	Tin . . .	112·8	175·2	185·5
Rice . . .	56·4	75·8	87·8	Petroleum products . .	2·4	68·6	74·8
Petroleum products . .	4·8	75·4	83·8	Rice . . .	47·2	51·7	61·5
Cotton Piece-goods and Sarongs .	28·9	62·5	57·6	Cotton Piece-goods and Sarongs .	9·8	38·2	35·9
Cigars and cigarettes, etc.	11·4	36·9	34·1	Copra . . .	19·8	30·0	33·6
Copra . .	19·3	28·9	32·0	Cigars and Cigarettes, etc. . . .	5·8	18·9	18·9
Sugar . . .	10·5	15·8	15·1	Sugar . . .	6·1	7·8	8·2
Milk[2] . . .	3·9	12·6	14·1	Milk . . .	1·6	6·3	7·7
Machinery .	3·0	8·9	12·8				
Coal . . .	11·3	8·2[3]	9·5[3]				
Net imports treasure. .	9·1	28·8	31·7				

B.—Overseas Trade of the Straits Settlements in 1913 and 1923[4]

(In million dollars)

	Imports.			*Exports.*	
——	1913	1923		1913.	1923.
Total	340·4	555·6	*Total*	306·7	611·1
Rice	55·3	58·2	Para rubber . . .	25·2	227·8
Rubber	0·7	55·5	Tin	112·8	119·6
Petroleum products .	4·1	53·4	Petroleum products .	1·2	30·9
Cotton piece-goods and Sarongs . .	28·9	46·1	Copra	19·8	28·6
Tin ore	13·5	41·5	Rice	27·4	22·1
Cigarettes and Tobacco	11·4	27·4	Dried and salted fish .	8·1	13·0
Sugar	10·5	16·6	Areca nuts	6·8	12·3
Copra	15·7	11·1	Cigarettes	0·8	10·2
Milk	3·9	9·6	Pepper	8·4	5·9
Coal	11·3	9·4	Sugar	4·3	5·6
			Canned Pineapples .	3·1	5·5

[1] The figures include land as well as overseas trade, and include trade with the F.M.S. and other colonies. They exclude goods that are merely transhipped at the ports, but include goods that are sold before they are re-exported. Coin and bullion are excluded.

[2] Condensed and sterilised.

[3] Excluding bunker coal. No mention is made of bunker coal in the 1913 returns, which presumably include it.

[4] Cf. League of Nations *Memorandum on Balance of Payments and Foreign Trade Balances*, 1911 to 1925, vol. ii. These figures exclude trade between the Straits and the rest of British Malaya. 1923 is the last year for which figures are given on this basis. Transhipments are excluded.

TABLE VI

TRADE OF THE DUTCH EAST INDIES[1]

(In million guilders)

Imports.	1913	1923.	1924.	1925.	*Exports.*	1913.	1923.	1924.	1925.
Total[2] {On Private Account	436·6	617·7	679·9	824·1	*Total* {On Private Account	614·2	1,377·8	1,539·9	1,793·0
{For Government .	27·0	27·7	19·9	21·1	{For Government .	57·2	8·2	14·5	18·5
Cotton Textiles . . .	96·2	148·2	159·4	207·7	Rubber	23·8	173·5	198·9	582·2
Rice	55·6	50·8	63·6	74·8	Sugar	152·7	499·1	489·9	367·2
Other Provisions[3]. . .	33·0	55·5	56·5	63·2	Petroleum Products . .	113·3	179·1	158·2	173·0
Iron, Steel and Manufactures thereof . . .	31·9	32·0	46·7	50·9	Tobacco	92·1	86·1	123·6	110·4
Machinery and tools . .	34·6	31·2	40·6	46·1	Copra	55·0	84·9	97·4	102·3
Cigars, Cigarettes and Tobacco	6·0	38·0	38·6	40·7	Tin and Tin Ore . . .	6·0	59·8	80·9	77·8
Motors, tyres and parts .	7·4	12·9	14·7	25·3	Tea	21·5	75·7	93·5	74·3
Fertilisers	11·8	17·0	21·6	18·0	Coffee	20·3	29·5	65·5	68·2
					Spices	13·0	14·7	26·5	30·9
Net Imports Specie[4] . .	17·0	1	—	13	Net Exports Specie[4] .	—	—	6·9	—

[1] 1925 is the last year for which complete figures are available. (Cf. *Statistical Abstract for the Netherlands East Indies*, for 1926.)
[2] Merchandise only.
[3] Including fish, soya beans, butter and margarine, etc.; excluding liquors, milk, and wheat flour. In 1925 liquors were valued at 14·8 million guilders, milk at 6·8 millions, and wheat flour at 9·7 millions.
[4] Almost entirely on private account.

TABLE VII

TRADE OF CEYLON IN 1913 AND 1925.[1]

(In lakhs of rupees)

Imports.			*Exports.*		
	1913.	1925.		1913.	1925.
Total	18,54	35,09	*Total* Domestic Produce	22,42	47,30
Rice and Paddy	5,20	9,66	*Total* Re-exports	87	4,92
Cotton and Cotton Piece-goods	1,39	2,83	Tea	8,77	19,96
Mineral oil	28	2,26	Rubber [2]	6,12	16,99
Coal (for internal use)	1,33	1,76	Coconut products,[3]	4,86	7,79
Rubber	55	1,53	including Copra	2,09	3,82
Fertilisers	60	1,27	Cinnamon and Areca-nuts	54	72
Refined sugar	53	1,26	Plumbago	90	29
Fish	46	80	Cacao	30	23
Motors and Lorries	24	74	Citronella oil	16	22

Value of coal supplied to steamers in 1925 . . . Rs.1,41 lakhs.
Value of liquid fuel supplied to steamers in 1925 . . Rs. 90 ,,

[4] Total fuel supplied to steamers in 1925 . . . Rs.2,31 ,,

[1] Merchandise on private or Government account only; excluding copper and nickel coin imported as well as gold and silver coin and bullion. Prepared from the League of Nations *Memorandum on the Balance of Payments and Foreign Trade Balances*, 1911 *to* 1925, vol. ii.

[2] This was the value of the rubber grown in Ceylon; including re-exports the total value of rubber exported in 1925 was Rs.18,50 lakhs.

[3] *I.e.* copra, coconut oil, desiccated coconuts, coir fibre, and coir yarn.

[4] Cf. Ceylon Blue Book, 1925.

TABLE VIII

TRADE OF PERSIA, LAND FRONTIER AND OVERSEAS

(In million krans)[1]

Imports.					*Exports.*				
——	1911–12.[2]	1923–24.	1925–26.	1926–27.	——	1911–12.	1923–24.	1925–26.	1926–27.
Merchandise	— [3]	— [3]	834·9	779·2	Merchandise	— [3]	— [3]	506·0	441·4
Bullion and Specie	— [3]	— [3]	46·1	7·6	Anglo-Persian Oil Company [4]	— [5]	— [3]	544·7	654·3
					Bullion and Specie	— [3]	— [3]	8·7	8·3
Total	518·4	694·2	881·0	786·8	Total	382·5	768·3	1,059·4	1,104·0
Principal Items of Trade.									
Cotton yarns and piece-goods	149·9	223·6	282·1	245·6	Mineral Oil	— [3]	383·0	544·8	654·4
Sugar	116·1	131·7	138·1	124·0	Carpets	— [3]	105·0	117·6	122·6
Tea	30·0	60·1	65·3	69·7	Opium	20·6	60·2	70·4	96·1
Mineral Oil	7·6	19·8	25·0	31·4	Raw Cotton	67·2	49·3	62·0	56·5
Woollens and mixed (woollen and cotton) goods	— [3]	16·6	20·7	27·7	Fruit, fresh and dried	52·5	38·9	79·2	32·0
Machinery and tools	— [3]	— [3]	14·7	24·0	Wool	10·4	13·2	21·8	23·4
					Rice	31·6	12·9	43·3	20·5
					Cotton piece-goods	— [3]	7·6	6·1	3·5

[1] The rates of conversion were : in 1911–12, 50 krans ; in 1923–24, 45 krans ; in 1925–26, 43·5 krans ; and in 1926–27, 48·6 krans to the pound sterling.

[2] The figures for 1911–12 are taken from the United States *House Documents*, vol. 78, No. 959, "*Commercial Relations* 1911," 62nd Congress, 3rd Series, 1912–13. Dollars have been converted at the rate of 4·867 to the pound sterling. No figures are given for 1913–14 in the D.O.T. Reports, except for the distribution of trade (cf. Fig. 23, p. 120).

[3] Not available.

[4] The shipments of the Anglo-Persian Oil Company are usually excluded from Persian exports by Persian economists, who, in consequence, speak of an " adverse trade balance " that exists in their imagination only.

[5] Exports of mineral oil were negligible before the war.

TABLE IX

TRADE OF IRAQ, LAND FRONTIER AND OVERSEAS, IN 1925 [1]

(In lakhs of rupees)

Imports.				*Exports.*			
—	Goods for domestic consumption.	Goods in transit.	Total.	—	Domestic products.	Goods in transit.	Total.
Total [2]	9,37	7,90	17,27	*Total*	5,12	6,97	12,09
Textiles	3,14	3,15	6,29	Textiles	37	3,15	3,52
Carpets	2	1,81	1,83	Dates	2,05	0	2,05
Sugar	1,33	34	1,67	Carpets	5	1,81	1,86
Grain, pulse and flour	1,41	0·5	1,41·5	Sugar	10	34	44
Tea	52	49	1,01	Intestines	31	25	56
Oils	73	4	77	Tea	1	49	50
Metals and ores	15	29	44	Hides and skins	39	8	47
Wood and timber	34	0	34	Wool	80	0	80
Intestines	2	25	27	Metals and ores	12	29	41
Liquors and wines	21	2	23	Grain, pulse and flour	11	0·5	11·5

[1] Cf. Report to the League of Nations on the Administration of Iraq in 1926. Comparable pre-war figures are not available.

[2] The Report from which this table is compiled gives an estimate of the "goods for domestic consumption" and goods in "transit" not for all items of trade, but only for 87 per cent. of the imports and 85 per cent. of the exports. In this table the assumption is made that the remaining 13 per cent. of the imports and 15 per cent. of the exports are divided between "home consumption" and "transit" in the same ratio as the goods for which information on this point is forthcoming.

TABLE X

A.—Trade of Kenya and Uganda [1]

Imports.				*Exports.* [2]			
——	1913.[3]	1925.[4]	1926.[4]	——	1913.	1925.	1926.[5]
Total Private Merchandise £	2,317,488	8,628,035	7,680,577	*Total domestic produce* . £	848,312	7,821,844	6,010,386
Government Stores . . .	509,145	3,717,344	1,390,740	Re-exports	149,962	1,754,309	1,834,295
Principal Items—				*Principal Items*—			
Piece-goods £	441,419	1,227,107	—	Raw cotton £	289,328	4,694,339	—
million yards	31·3	35·6	29·7	centals (of 100 lbs.)	107,287	785,849	724,629
Mineral oil £	16,806	437,799	—	Coffee . . £	20,915	963,920	—
million gallons	654,981	12,106,651	Not given	1000 cwts.	17[6]	177	174
Tobacco (all kinds) £	13,269	164,945	—	Sisal Hemp . . £	—	517,608	—
lbs.	102,983	1,108,985	1,351,647	tons	11,416	13,623	14,928
				Maize . . £	53,920	416,964	—
				1000 cwts.	226	1,219	929
				Hides and skins . £	149,258	358,953	—
				tons	—	953,486	Not given.
				Carbonate of soda £	803	213,680	—
				tons	15	48,306	19,427
				Simsim (sesame seed) £	66,314	69,371	—
				tons	—	3,244	3,799
				Copra . . . . £	31,956	35,915	—
				tons	1,564	1,565	1,104

[1] Figures for 1913 taken from the *Statistical Abstract for the British Overseas Dominions*, 1909–1923. Figures for 1925 and 1926 taken from the *D.O.T. Report on the Trade of East Africa*, the *Colonial Report on Kenya and Uganda*, and the *Annual Trade Report of Kenya and Uganda* (latest issue, 1925).

[2] Produce of adjoining territories exported *via* Kenya are entirely excluded.

[3] In 1913 no distinction was made between imports for domestic consumption and imports passed on to other areas, but the latter figures were then relatively small.

[4] The figures for 1925 and 1926 include imports for home consumption only.

[5] Values of the principal imports and exports are not available for 1926.

[6] This is for 1914, as figures for 1913 are not available.

TABLE X—*Contd.*

B.—Principal Imports and Exports of Tanganyika.[1]

Imports.		*Exports.*			
	1926.			1913.[2]	1926.
Cotton Piece-goods	£817,576	Sisal Hemp	£	—	911,293
			tons	20,834	25,022
Foodstuffs	£349,245	Coffee	£	—	495,199
			tons	1,059	6,539
Iron and Steel Manufactures	£297,724	Cotton	£	—	427,437
			tons	2,192	4,886
Machinery	£162,274	Ground-nuts	£	—	254,903
			tons	8,961	15,867
Building Materials	£140,625	Hides and skins	£	—	164,435
			tons	3,456	2,095
Kerosene and Motor Spirit	£118,023	Copra	£	—	152,228
			tons	5,477	7,348

[1] Cf. Report to the League of Nations on the Administration of Tanganyika for 1926.

[2] Values are not available for 1913. No figures comparing imports in 1913 and 1926 can be given.

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THE END

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