HANDBOOKS PREPARED UNDER THE DIRECTION OF THE HISTORICAL SECTION OF THE FOREIGN OFFICE.—No. 82

D 6
.G7
no. 82
Copy 2

JAVA

And MADURA

LONDON:
PUBLISHED BY H. M. STATIONERY OFFICE.

1920

LIBRARY OF CONGRESS

THE LIBRARY OF CONGRESS
1800

Class U6
Book .G7

153

HANDBOOKS PREPARED UNDER THE DIRECTION OF THE HISTORICAL SECTION OF THE FOREIGN OFFICE.—No. 82

Gt. Brit

207
1407

JAVA

And MADURA

LONDON:
PUBLISHED BY H. M. STATIONERY OFFICE

1920

2 dest

D6
.G7
copy 2

D. of D.
DEC 17 1920

EDITORIAL NOTE

In the spring of 1917 the Foreign Office, in connexion with the preparation which they were making for the work of the Peace Conference, established a special section whose duty it should be to provide the British Delegates to the Peace Conference with information in the most convenient form—geographical, economic, historical, social, religious, and political—respecting the different countries, districts, islands, &c., with which they might have to deal. In addition, volumes were prepared on certain general subjects, mostly of an historical nature, concerning which it appeared that a special study would be useful.

The historical information was compiled by trained writers on historical subjects, who (in most cases) gave their services without any remuneration. For the geographical sections valuable assistance was given by the Intelligence Division (Naval Staff) of the Admiralty; and for the economic sections, by the War Trade Intelligence Department, which had been established by the Foreign Office. Of the maps accompanying the series, some were prepared by the above-mentioned department of the Admiralty, but the bulk of them were the work of the Geographical Section of the General Staff (Military Intelligence Division) of the War Office.

Now that the Conference has nearly completed its task, the Foreign Office, in response to numerous inquiries and requests, has decided to issue the books for public use, believing that they will be useful to students of history, politics, economics, and foreign affairs, to publicists generally and to business men and travellers. It is hardly necessary to say that some of the subjects dealt with in the series have not in fact come under discussion at the Peace Conference; but, as the books treating of them contain valuable information, it has been thought advisable to include them.

It must be understood that, although the series of volumes was prepared under the authority, and is now issued with the sanction, of the Foreign Office, that Office is not to be regarded as guaranteeing the accuracy of every statement which they contain or as identifying itself with all the opinions expressed in the several volumes ; the books were not prepared in the Foreign Office itself, but are in the nature of information provided for the Foreign Office and the British Delegation.

The books are now published, with a few exceptions, substantially as they were issued for the use of the Delegates. No attempt has been made to bring them up to date, for, in the first place, such a process would have entailed a great loss of time and a prohibitive expense; and, in the second, the political and other conditions of a great part of Europe and of the Nearer and Middle East are still unsettled and in such a state of flux that any attempt to describe them would have been incorrect or misleading. The books are therefore to be taken as describing, in general, *ante-bellum* conditions, though in a few cases, where it seemed specially desirable, the account has been brought down to a later date.

G. W. PROTHERO,

General Editor and formerly
Director of the Historical Section.

January 1920.

TABLE OF CONTENTS

PAGE

I. GEOGRAPHY PHYSICAL AND POLITICAL

(1) Position and Extent 1
(2) Surface, Coasts, and River System
Surface 1
Coasts 3
River System 4
(3) Climate 5
(4) Sanitary Conditions 6
(5) Race and Language
Native Peoples 7
Alien Orientals 8
Europeans 9
(6) Population
Distribution 10
Towns 10
Movement 11

II. POLITICAL HISTORY

Chronological Summary 12

(1) Earliest European Settlements 13
Portuguese Conquest of Malacca . . . 13
The Moluccas, Java, and Sumatra . . . 13
Dutch Intervention 13
Establishment of Dutch Influence . . . 14

(2) The Netherlands East India Company . 14
Establishment of the Company, 1602 . . 14
Rivalry of Great Britain 15
Coen Governor-General 15
Ruthless Administration of Coen . . . 15
De Carpentier Governor-General . . . 16
Conflict with Great Britain 16
Reappointment of Coen 16

Wt. 11788/938. 1000. 7/20. O.U.P.

PAGE

Siege of Batavia 16
The Seventeenth Century 16
Political Activity of the Company . . . 17
Commercial Policy 17
The 'Regents' 17
Evils of the Company's System . . . 17
Batavian Republic takes over the Company's Possessions 18

(3) The East Indies under Daendels, 1808–11 . 18

Daendels appointed Governor . . . 18
The Threat from Great Britain . . . 18
The British seize Java 19
Effect of the Loss on Holland . . . 19

(4) The East Indies under British Rule, 1811–16 20

Sir Stamford Raffles Lieutenant-Governor . 20
Division into Governments 20
Reforms in Java 20
The Residents and the 'Regents' . . . 20
Further Reforms of Raffles 21
The Salt Monopoly 21
Restoration of the East Indies to Holland . 21

(5) Restoration of Dutch Rule, 1816 . . 22

Policy of the Dutch Commissioners . . 22
Van der Capellen Governor 22
Policy of Van der Capellen 23
Treaty of 1824 23

(6) The Netherlands Trading Company . . 24

Establishment of the Company . . . 24
Changed Conditions 24
Charter, Capital, and Dividends . . . 24

(7) Unrest and the Java War, 1825–30 . . 25

Problems of the Administration . . . 25
The War in Java 25
Causes of the War 25
Conduct and Cost of the War . . . 26
Limitation of Powers of Native Rulers . . 26

PAGE

(8) Van den Bosch and his Policy . . . 26
Appointment of Van den Bosch . . . 26
Alteration of Policy 27
Commercial Policy 27
Large Profits made 27
Evils of the New Policy 27
Alteration in the Policy 28
Coffee Cultivation 28

(9) 'Max Havelaar' 29
Divergent Views as to the Culture System . 29
Publication of *Max Havelaar* 29
The System exposed 29
Effect of the Book 30
Address to the King 31
Defence of the Culture System . . . 31
Partial Abolition of Statute Labour . . 32
Capitation Tax introduced 33

III. SOCIAL AND POLITICAL CONDITIONS

(1) Religious 34
(2) Political 35
Native Rulers 35
The Governor-General and Council . . . 35
Residencies 36
Public Loans 37
Law 37

(3) Naval and Military Organization . . 38

(4) Educational 39

GENERAL OBSERVATIONS

Present Material Condition of the Natives . 40
Opinions of Van den Berg 40
Opinions of Van Kol 40
Opinions of Van Deventer 41
The Rubber Trade 42

PAGE

IV. ECONOMIC CONDITIONS

(A) Means of Communication

(1) Internal

(a) Roads 43
(b) Rivers 43
(c) Railways 44
(d) Posts, Telegraphs, and Telephones . . 45

(2) External

(a) Ports

(i) Accommodation 45
(ii) Volume of Trade 48
(iii) Adequacy to Economic Needs . . 48

(b) Shipping Lines 49
(c) Cable and Wireless Communications . . 52

(B) Industry

(1) Labour 53

(2) Agriculture

(a) Products of Commercial Value

(i) Vegetable Products 54
Cassava, Maize 54
Rice, Wheat, Cinchona . . . 55
Cocoa, Coffee 56
Cotton, Indigo, Kapok . . . 57
Oil-producing Plants 57
Opium, Rubber 58
Spices, &c., Sugar, Tea. . . . 59
Tobacco 60

(ii) Livestock and Animal Products . 61

(b) Methods of Cultivation 61
(c) Forestry 63
(d) Land Tenure 64

(3) Fisheries 65

(4) Minerals 65

Mining Laws 67

(5) Manufactures. 68

(6) Power 69

PAGE

(C) COMMERCE
(1) Domestic
(a) Principal Branches of Trade . . . 70
(b) Towns, Markets, &c. 70
(c) Organizations to promote Trade and Commerce 70
(d) Foreign Interests 71
(2) Foreign 72
(a) Exports
Quantities and Values 72
Countries of Destination . . . 73
(b) Imports
Quantities and Values 74
Countries of Origin 75
(c) Customs and Tariffs 76

(D) FINANCE
(1) Public Finance 76
Revenue 77
Expenditure 79
Taxation 80
(2) Currency 82
(3) Banking 82
(4) Influence of Foreign Capital ; Principal Fields of Investment 87

(E) GENERAL REMARKS 89

APPENDIX
Treaty between Great Britain and the Netherlands, March 17, 1824 90

AUTHORITIES 95

I. GEOGRAPHY PHYSICAL AND POLITICAL

(1) Position and Extent

The island of Java with its small neighbour Madura, which almost touches it on the north-east, is situated between the Java Sea and the Indian Ocean, in the great southern chain of the Malay Archipelago, between Sumatra on the north-west and the Lesser Sunda Islands on the east. It lies between 5° 52′ and 8° 47′ south latitude and 105° 14′ and 114° 38′ east longitude, with a length of about 650 miles, a maximum width of 125 miles, and (including Madura) an area of 50,777 square miles.

(2) Surface, Coasts, and River System

Surface

Considered physically, Java falls into three divisions: two broad portions lying at the extremities, west of Cheribon and east of Semarang, and a narrow central waist that connects them.

In the western section the mountains are massed in the south, where the main system is comprised in the Preanger highlands, and from these, leaving out of account the volcanic cones, there is a general slope to the low-lying plain in the north. In the north-west are the isolated highlands of Pandeglang, while the extreme western peninsula is formed by the thickly wooded hills of Tjaring, both of these high regions being in the Residency of Bantam.

In the narrow middle section between Cheribon and Semarang the mountains assume a more definite chain

formation, and the volcanic cones are fewer and more widely scattered. The principal range runs rather towards the northern side of the island, but curves southwards towards the east, ending in the peaks of Merbalu and Merapi. Its highest point is Slamat (11,200 ft.), and near its eastern end it is cut by the Praga valley. In the south, and separated from the main chain by the longitudinal valley of the Serayu and the Banyumas plain, is an independent ridge of limestone formation.

The mountain system of the eastern division consists of limestone and sandstone ranges with a group of volcanoes between. The northern chain comprises two parallel ridges, that near the coast being continued in Madura. Along the southern coast lies a mass of limestone highlands, broken towards the east by the valleys of Lumajang and Jember, but extending into the south-eastern peninsula of Blambangan. Between the coastal ranges are the volcanoes, forming a double row about the middle of the district and continuing in isolated peaks to the extreme east.

There are in all about 125 volcanoes in Java, of which fourteen are active. The operations of these are as a rule trifling, though, where the cones remain unbroken, serious eruptions are always possible. Volcanic rocks, mostly andesites and basalts, cover more than a quarter of the surface of the island.

The broad northern plain of western Java, from Bantam to Cheribon, is in two parts: a coastal strip, from 3 to 25 miles wide, formed by the action of seas and rivers (at the deltas of which it is widest), attaining a maximum height of some 50 ft.; and the inland plain of earlier formation, which may rise to 300 ft. or more. In Karawang and Cheribon there are marshes along the rivers and on the coast. In middle Java the northern plain becomes very narrow, while on the other hand in the south are the marshes

of Tjilatjap, the extensive plain of Banyumas, and the valleys of the Serayu and Praga. The coastal strip is narrow. Lastly, in the eastern division there are in the north coastal plains extending from Semarang to Surabaya, composed for the most part of marine sand and clay, and in the south some low-lying ground, largely marsh and sand-hills. In the interior the extensive plains of Surakarta, Madiun, Kediri, and Malang lie among the volcanic peaks. They have in general a slight slope and attain in parts a height of 1,600 ft.

Coasts

On the north coast of Java the action of the rivers flowing into the shallow Java Sea has contributed to the formation of a narrow flat tract of shore, which extends with only occasional and insignificant intermission along the whole northern coast of Java. West of Cheribon it is covered with nipa and mangrove woods, while to the east there are stretches of sand and marsh. Generally along its whole length the coastal strip shelves gradually out to sea, but at the mouths of rivers the silt has formed banks of sand and mud. The coast contains many bays, but none penetrate deeply. The best harbour is Surabaya, which consists mainly of the strait between the mainland and Madura. By artificial means another important harbour has been constructed at Tanjong Priok in the Bay of Batavia.

On the south coast the ocean floor sinks to great depths close off shore. Prevailing currents sweep away the alluvial deposits, but in certain regions throw them back in the form of sand ridges. From the mouth of the Serayu to the Upak (along the coast of Banyumas, Bagelen, and Jokya) there are three ridges of sand about 50 ft. high, and varying in width from 100 yds. to 600 yds. These dunes are liable to shift, and during

the south-east monsoon they tend to block the mouths of the rivers, diverting their courses to the west. Less extensive sand ridges are found in other parts of the coast, and often enclose lagoons and marshes.

East of the Upak are steep cliffs about 150 ft. high, which follow the line of the limestone hills of southern Java and for some distance present no inlet. Beyond Sempu Island, in southern Pasuruan, and again in southern Besuki, the spurs extend to the shore, where they project as headlands, and sometimes form inlets flanked by cliffs.

Sunda Strait, between Java and Sumatra, has a greatest width of 65 miles at the southern end, but the narrowest part in the north is only 15 miles across. On the Java side there are two well-marked inlets, Welkomst Bay and Peper Bay. Bali Strait, between Java and Bali, is very narrow at the northern end, but widens to the south, with one inlet, Bay of Mana, on the Java side.

River System

The rivers of Java flow generally north or south, and are as a rule short and rapid. The longer slope of the island is for the most part on the north, and it is in this direction that the main rivers flow. To this rule there are local modifications, as in the broad part of East Java, where the Solo and the Brantas are diverted to the east by limestone ridges, and in Middle Java, where the central range approaches the north coast, and where there is a group of rivers of considerable length flowing southward to the Indian Ocean.

During the north-west monsoon, roughly from October to May, the rainfall is heavy, and the rate of discharge therefore high, causing frequent floods. In the period of the south-east monsoon, from May to

September, when rainfall is scanty, the rivers are naturally low.

In Middle Java the north coast rivers, though serviceable for agriculture, are practically useless for navigation, while the swift flow of the rivers which discharge into the Indian Ocean precludes any but the Serayu from being of use for transport. The principal rivers in East Java are the Solo, the Brantas, and the Gentung, a tributary of the Solo.

(3) Climate

Java is under the regime of the north-west and south-east monsoon; the former prevails from December to March, and the latter from April to October or November. The north-west monsoon brings the greater part of the rainfall, but during the south-east the showers are more intense.

The equatorial situation of the islands and the surrounding seas combine to produce equability of temperature. The mean annual temperature is high, being 78°–80° F. (25·5°–26·6° C.). There is a very small monthly range and a small daily range, which increases eastwards. The month with the lowest mean temperature in Batavia is January, 77·7° F. (25·39° C.), and the highest is October with 79·7° F. (26·5° C.). In Assembagus, near the north coast, and Pasuruan, on the eastern peninsula, the lowest is 77·5° F. (25·28° C.) and 78·4° F. (25·78° C.) respectively in July, while the highest is 81·1° F. (27·28° C.) in Assembagus in November and 81·9° F. (27·72° C.) in Pasuruan in October. The mean daily range is 11·8° F. (6·56° C.) at Batavia, 19·1° F. (10·61° C.) at Assembagus, and 16·9° F. (9·39° C.) at Kupang. In the mountains the daily range is much greater.

The wettest months are December, January, and

February, and the driest period is from July to September.

The wettest station in Java is Kranggan in Banyumas, with an average annual precipitation of 327 in. (830·58 cm.), and the driest is Assembagus, with an average annual rainfall of 35 in. (88·9 cm.). During the north-west monsoon the wettest region is in the south of Middle Java, with an average rainfall of 58·59 in. (148·81 cm.), and the driest in the north of East Java with an average rainfall of 44·72 in. (113·58 cm.). During the south-east monsoon the wettest region is in the southern part of West Java, with an average rainfall of 23·74 in. (60·29 cm.), and the driest is in the north of East Java, where the average rainfall is 6·3 in. (15·99 cm.). There is considerable rainfall in the transitional periods between the monsoons, when as usual it is wettest on the south coast in the west of Middle Java, and driest in East Java on the north coast of the eastern peninsula.

Land and sea breezes are important and occur at all times of the year. A fresh sea wind blows all day and is succeeded at night by a light land breeze, which, however, is hardly perceptible on land.

(4) Sanitary Conditions

Health statistics are very incomplete. Malaria in its various forms is very prevalent, especially along the low-lying marshy north coast, and occasionally there are violent outbreaks lasting for several years in various localities, from which the local form of the disease often takes its name. Lately, owing to hygienic precautions in the way of drainage and the use of quinine, an improvement has been effected. The prevalence of venereal disease is next to that of malaria.

Other endemic diseases such as cholera, beri-beri, and dysentery also occur in violent outbreaks.

Small-pox is less common since the introduction of vaccination. Since 1911 there has been a plague epidemic spread by rats, the regions affected being in central and eastern Java.

The efforts of the Government civil medical service in Java are chiefly directed to preventing and suppressing epidemics at the ports. A few big hospitals for leprosy, eye diseases, and beri-beri are maintained at Batavia, Semarang, and Surabaya, while a number of private institutions are subsidized and otherwise encouraged by the Government.

(5) Race and Language

Native Peoples

There are three native peoples, Javanese, Sundanese and Madurese, all of whom are sprung from the same Malay stock.

Javanese.—This people constitutes roughly two-thirds of the total number of natives, and inhabits the provinces of Pekalongan, Banyumas, Kedu, Semarang, Surakarta, Jokyakarta, Rembang, Madiun, Kediri, and Surabaya. The Javanese, as their script and folk-lore show, were at one time subject to Hindu influence, from which their culture is derived. Middle or Cheribon Javanese, the language of the Hindu kingdom of Majapahit, is still spoken by some 3,000,000 Javanese, and the chief language, New Javanese, is not so different from the Middle Javanese as to prevent both languages being understood by all the natives. The original Malay tongue has been influenced strongly by Sanskrit, and to a lesser degree by Arabic.

There are two varieties of New Javanese—Krama, used by the nobility, and Ngoko, used by the common people. Each class understands, and, when addressing the other, uses the other's language.

Sundanese.—The Sundanese constitute roughly one-sixth of the total population of the island. Their character is similar to that of the Javanese, but they have been less affected by Hindu culture than that race. Their language, Sundanese, is spoken throughout West Java, except in Batavia and its environs.

Madurese.—The inhabitants of the island of Madura, in number roughly over 5,000,000, are shorter than the Javanese, but their seafaring life has produced a sturdier physique and a more independent character.

Among subsidiary races are the *Tenggerese* of Wong Tengger, about 7,000 in number, who are the last remnant of the Majapahit civilization, and have been settled on the slopes of Mount Bromo since the thirteenth century. The *Baduj* numbered 2,000 in 1908, and live on the Kendung Mountains in southern Bantam. They are descendants of the Hindu recusants of the time of Hasen-u-din and live in the strictest seclusion. The *Kalangs* are a small body of people, originally nomads but now confined to villages, where they practise the trades of coppersmith and carpenter.

Alien Orientals

In every part of the Dutch East Indies there are important settlements of natives from other Eastern countries. These settlers come chiefly from China, Arabia, and, to an unimportant extent, from India.

The *Chinese* resident in Java fall into two classes: the *sinkehs*, who were born in China, and the *peranakans*, who were born in the Dutch Indies. The total Chinese population in Java, according to the 1905 census, was 295,193, of which the great majority were *peranakans*, the *sinkehs* being more numerous in the Outer Possessions. Physically the *sinkehs* are superior and are thus in demand on the plantations. Most of the immigrants are of the pauper class, and during the

last half-century their numbers have doubled in Java and it has been necessary to restrict immigration. From the economic point of view the Chinese are extremely industrious, shrewd, able organizers, and physically strong.

The *Arab* immigrants come from Hadramaut in Arabia, and their chief settlements in Java are in Batavia, Cheribon, Tegal, Pekalongan, Semarang, Tuban, Grisee, Surabaya, Sumenap, Banggil, and Banyuwangi. In Java and Madura in 1905 there were 19,000 Arabs. They rarely bring their wives from Arabia, but intermarry with the natives or Arab Javanese.

Europeans

In Java and Madura, in 1905, there were nearly 65,000 persons in the class of Europeans and those legally associated with them, the latter being mainly half-castes and Japanese. The above figure excludes Europeans serving in the army and the navy. Figures of 1905 which only account for half the European population show that nearly 7,000 were civil servants, about 9,000 were engaged mainly in agriculture, industry, and commerce, and about 1,000 were in the professions, including the teachers in free schools.

Of the Europeans 92 per cent. were Dutch, but only 7 per cent. of these were born in Holland. Although the number of children by native mothers is less than formerly, the number of coloured 'Europeans' far exceeds the white, and this preponderance appears in the army, civil service, industry, and commerce.

The largest foreign class was the German, which in Java numbered about 700.

(6) Population

Distribution

An estimate of the population of Java and Madura in 1912 put the total population at 36,015,435, of whom 86,681 were Europeans, 351,094 alien Orientals, 35,577,660 natives. While the Kedu Residency is one of the most densely inhabited regions in the world, the sparse population of the two peninsulas at the extremities of the island makes the average density a little less than that of England and Wales.

Generally speaking, the bulk of the population inhabits the flat country, except in marshy regions, but the cultivation of coffee, cinchona, and tea has attracted population to regions at a considerable elevation, e. g. the Preanger plateau and the mountains of Middle Java.

The population of the north coast is thicker and more generally distributed, and in this region are the chief towns. Here it is mixed in character, comprising numbers of Malays, Chinese, Arabs, and Europeans. On the less accessible south coast the natives have preserved their characteristics to a greater degree.

About 3 per cent. of the population inhabit the towns.

Towns

The capital of Java and of the Dutch Indies is Batavia, on the Bay of Batavia on the north coast, with a total population in 1905 of about 138,800, of whom 8,777 were Europeans, nearly 100,000 natives, over 28,000 Chinese, and over 2,000 Arabs. By 1915 the European population was supposed to have more than doubled.

Surabaya, on the mainland opposite Madura, has the largest population, which in 1915 amounted to

156,752, of whom over 15,000 were Europeans, over 120,000 natives, 19,000 Chinese, and the rest Arabs.

Semarang is the third seaport of importance on the north coast, and had in 1905 a total population of 96,660.

Surakarta and Jokyakarta, situated in the centre of the island, are the capitals of the two native principalities bearing the same names. Surakarta in 1905 had a total population of 118,378 and Jokyakarta 79,567, in each case mainly composed of natives, with a considerable colony of Chinese.

Movement

Comparing the census of 1905 with the estimate of the population of 1912, the Europeans and those legally associated with them have increased by about $33\frac{1}{3}$ per cent., the Orientals, including Chinese, Arabs, and others, by a little over 9 per cent., and the natives by about 20 per cent.

II. POLITICAL HISTORY

Chronological Summary

1598. First Dutch trade relations opened.
1602. Establishment of Netherlands East India Company.
1617. Coen appointed Governor-General.
1619. English assist natives to resist Dutch.
1619. Batavia established as seat of government.
1623. De Carpentier appointed Governor.
1623. Legal murder of English at Amboina.
1627. Coen reappointed Governor.
1628. Siege of Batavia by Sultan of Mataram.
1636. Van Diemen appointed Governor.
1667. Ruthless military rule of Cornelis Speelman.
1750. Chinese peril in Batavia.
1755. Empire of Mataram broken up.
1755. Principalities of Surakarta and Jokyakarta established.
1791. Insolvency of Dutch East India Company proclaimed.
1798. Charters of Dutch East India Company annulled.
1806. Daendels appointed Governor for French kingdom of Holland.
1811. Capture of Java by British. Raffles appointed Lieutenant-Governor.
1814. Treaty restoring East Indian possessions to Holland.
1816. Government handed over by British.
1819. Van der Capellen appointed Governor.
1824. Treaty between England and Holland respecting territory and commerce in East Indies.
1824. English possessions in Sumatra given up.
1824. Establishment of Netherlands Trading Company.
1825. Outbreak of five years' war in Java.
1830. Van den Bosch appointed Governor. Introduces new system of exploitation.
1840. East Indian budget first submitted to States-General.
1850. 'Van den Bosch' system improved and restricted.
1860. Appearance of *Max Havelaar*, denouncing 'Forced Culture' system.
1887. Protests touching unsatisfactory conditions of Dutch East Indies.

1903. Local autonomy conceded.
1905. Netherlands loan of 40 million guilders to cover East Indies debt.
1908. Elective principle introduced into local government.
1913. State Commission reports on defence of East Indies.
1915. East Indies raise first loan on their own account ($62\frac{1}{2}$ million florins).

(1) Earliest European Settlements

The first European Power to establish its influence in the East Indian Archipelago was Portugal, soon after Vasco da Gama had led the way to India round the Cape of Good Hope in 1497. The Portuguese conquest of Malacca in 1511 was followed almost immediately by the appearance of Portuguese merchantmen in the Moluccas in quest of spices; here they obtained permission to build a fort on the island of Ternate, and subsequently Amboina became their principal station.

Already in 1521 they had begun to visit the coasts of Sumatra and Java; in the former island the most powerful state they found was that of Atjeh (Achin), which was ruled by a Sultan, and professed the faith of Islam, introduced in early times from Farther India. Java they found in a condition of unrest caused by religious strife; and this led, about the middle of the sixteenth century, to the establishment in the centre of the island of a powerful empire named Mataram, which maintained itself entire for two hundred years, but was finally broken up by the Dutch in 1755 and divided into the two principalities of Surakarta and Jokyakarta. There is abundant evidence of extensive commercial intercourse between the Portuguese and Javanese throughout the sixteenth century, the former enjoying all the privileges of free trade in the harbours of Java, the latter in return being admitted as colonists in Malacca, Ternate, and Amboina.

Until Portugal was conquered by Spain in 1580, the

Dutch had obtained at second-hand from the Portuguese all Oriental products needed for their own consumption and for that of the countries they supplied. A comparatively small matter led to an alteration of this arrangement. The closing of the ports of Cadiz and Lisbon by Philip II to the vessels of his rebellious Dutch subjects would not necessarily have led to the acquisition of a great colonial empire by the Netherlands; but it came precisely at a moment when many other potent reasons led the Dutch to undertake great ventures oversea. Trade with Muscovy, the Levant, Guiana, and even far Brazil had whetted the appetite of the Dutch for greater profits; what, therefore, they could no longer get at second-hand in Spain and Portugal the merchants of Holland determined to obtain at first-hand in the Indies.

The first successful Dutch expedition to the east, consisting of eight vessels, was sent out in 1598 by an Amsterdam company. It was more fortunate than an earlier one under Cornelis de Houtman; and, although very great antagonism on the part of the Portuguese had to be overcome before Dutch influence and commerce were firmly established throughout the archipelago, friendly trade relations were at once established with the rulers of Bantam, Jacatra, and Toeban, on the island of Java, and those of Amboina, Ternate, and the Banda Islands in the Moluccas.

(2) The Netherlands East India Company

Between 1595 and 1602 fifteen expeditions, numbering altogether 65 vessels, proceeded from the Netherlands to the East Indies, at great cost of life and treasure. The traffic, comparatively small as it still was, suffered largely from being in the hands of too many small companies, each anxious to destroy the others. This was remedied in 1602 by the establish-

ment of the Netherlands East India Company, which began by sending a fleet of 12 ships to take over the Dutch factories already existent at Bantam and Grisee, and traded with such profit that a dividend of 15 per cent. was paid in 1605, and one of 75 per cent. in 1606. The average annual dividend over a period of 150 years was 21 per cent.; and the shares were usually quoted at six times their nominal value.

The English, desirous of sharing in such profitable dealings, soon obtained a footing in Bantam, Jacatra, and Japara, and even in Macassar and the Moluccas. The Dutch found themselves seriously thwarted by the natives in their trade in all these places, and alleged that this was due to the instigation of their English rivals. They, therefore, placed at the head of affairs a man filled with a fierce spirit of animosity against the English, who proved no less efficient as a soldier than as an administrator.

In 1617 Jan Pieterszoon Coen was promoted from the post of Director-General of Commerce, which he had held since 1614, to that of Governor-General. His first success in May 1619 was the defeat of a powerful alliance of natives and English in Bantam; he razed the town of Jacatra to the ground, and built upon its ruins Batavia, the new seat of government. The real founder of Dutch empire in the east, his fame is stained by the bloody means he employed to enlarge the Company's gains. In an expedition which he led to the Banda Islands in 1621, to obtain possession of the vast nutmeg and clove plantations, he exterminated the natives and devastated their homes; 2,500 were killed, 1,322 carried off as prisoners. The plantations were then farmed out to time-expired soldiers and officials, who with slave labour raised crops that had to be sold to the Company at fixed prices. Another practice of Coen's was systematically to destroy whole districts

of spice-yielding trees in order to enhance the value of the crops already gathered.

Coen was succeeded in 1623 by De Carpentier, who proved himself equally energetic in resisting English enterprise in the East. In 1619 the English East India Company had acquired the right to have representatives at Batavia and at places in the Moluccas which were under Dutch rule. In 1623 the English were accused of conspiring to attack the Dutch fort at Amboina; nine of them, alleged to have confessed their guilt under torture, were executed. The British Government contended that the story of the conspiracy was a fabrication, and demanded compensation and the impeachment of the judges. Both being refused, the English began to leave the Dutch settlement.

De Carpentier's governorship was followed by the reappointment—most opportune for the Dutch—of Coen in 1627. In 1628 the Sultan of Mataram, who had gradually got possession of central and eastern Java, and was anxious to extend his power over the whole island, sent a large force to lay siege to Batavia. Coen died during the siege in September 1629; but the Javanese were utterly defeated by the Dutch, whose footing was henceforth firmly established. The next Governor who could in any way compare with Coen was Van Diemen (1636–45), under whom not only were the great discoveries made which his name recalls, but the dividends of the Company were greatly increased—a matter of far more importance to the Directors at home.

The history of Dutch conquest in the East during the middle of the seventeenth century consists of a number of apparently small but cumulatively useful diplomatic victories over native rulers, and of feats of arms, sometimes glorious, such as the capture of Ceylon from the Portuguese in 1656, sometimes wan-

tonly cruel, such as the marooning and starvation of 5,500 unarmed natives on a desert island between Boeton and Moena in 1667 during a successful expedition by Cornelis Speelman against Macassar.

For more than a century after this the Company, through the continued vigour of its agents, constantly extended the sphere not only of Dutch trade but also of Dutch sovereignty. Instead of remaining a purely trading body, it gradually became a governing authority, exercising the rights of former rulers, exacting dues, and being directly represented where it did not rule in name. The attention of its officials could no longer be given exclusively to trade; and its commercial policy, which should have been its chief preoccupation, became weak and unwise.

It encouraged no cultivation that would have meant small dividends to start with; its efforts were always directed to selling at high prices and to limiting production in order to keep up those prices. Its monopolies oppressed free native trade and shipping to such an extent that the Javanese lost all spirit of enterprise and their former high place among the seafaring peoples of the east. Though it held sway for two centuries, the Company never used its power to protect the people against the abuses committed by their own rulers, or 'Regents', as the native princes were called; its primary aim was profit, not dominion. Supervision was exercised only in order to guarantee the Company's commercial interests—the maintenance of monopolies and the regularity of the deliveries agreed upon.

Although they lived in ostentatious luxury, the 'Regents' were mostly impecunious, and frequently leased whole districts to Chinese, of whom 10,000 were living in the vicinity of the town of Batavia in the middle of the eighteenth century. These Chinese constituted

a great danger to Europeans, and practised all kinds of extortion upon the natives. Of the moneys received by the 'Regents' from the Company for the produce of the land the actual toilers obtained but a meagre percentage, and when in great straits were often forced to contract loans which made them the actual slaves of the ruler; for their inability to repay reduced them literally to servitude. A system that so impoverished the Javanese could not continue indefinitely to enrich the Company. Hence its decay.

When, in 1791, the insolvency of the Company was made known to the shareholders at home, a commission was sent out to investigate and to institute reforms; but, before it could act, the Batavian Republic had been established, in 1795; and in 1798 that Republic took over all the Company's possessions and annulled its charters.

(3) The East Indies under Daendels, 1808–11

In 1806 the Batavian Republic became the kingdom of Holland; and a newly-formed Ministry of the Colonies appointed General Daendels to the governorship of all Dutch possessions east of the Cape of Good Hope. Daendels, who was a most active and energetic administrator, reached Java in 1808 and found the situation critical.

Great Britain threatened the Dutch everywhere by sea; and the Javanese princes, acquiring audacity in proportion as they saw proofs of Dutch weakness, thought the moment ripe for prescribing the law to their former superiors. Dutch dominion in Java was in the greatest danger. The internal financial resources were exhausted, while the British blockade caused total stagnation of trade. Confronted by such alarming conditions, Daendels thought it necessary to place himself above every law but that which enjoined the

preservation of the colony entrusted to his management. He was just beginning to introduce many reforms afterwards adopted by his great English successor, when he was recalled to Europe in May 1811, a year after the kingdom of Holland had been incorporated in the French Empire.

The new Governor, General Janssens, had hardly taken his place when Lord Minto, acting on the advice of Thomas Stamford Raffles, a young British official who possessed an intimate knowledge of the East Indies and had already intrigued with various native rulers to counteract Dutch influence, determined to snatch Java from the French, and on August 4, 1811, landed an army unopposed near Batavia. Janssens' disregard of the measures taken by Daendels and official neglect and treachery were the chief causes that led to the surrender of Java and its dependencies to the British; the Dutch officials were, however, by stipulation allowed to keep their posts and to form part of the British administration.

The loss of Java did no immediate or direct harm to the Dutch. For many years prior to the British occupation Holland had derived little or no advantage from the nominal sovereignty which she continued to exercise over its internal affairs. Trade and intercourse between Java and Europe had been interrupted and nearly destroyed; and the colony now added nothing to the wealth of the mother country. Holland had continued, it is true, to send out governors, counsellors, and commissioners; but she gained from their inquiries little information as to the causes of her failure, and from their exertions no aid in improving her resources. The so-called colony had become a burden to the mother country.

(4) The East Indies under British Rule, 1811–16

Sir Stamford Raffles, who was Lieutenant-Governor of the East Indian Archipelago for five years (1811–16), succeeded in carrying out many of the reforms that Daendels had considered necessary but had been unable to impose. With the advent of this enlightened British ruler Java entered upon a new era of its history.

One of Raffles's first acts was to divide up the Dutch East Indies into four governments—Java and its dependencies, the Moluccas, the west coast of Sumatra, and Malacca. In the three last-mentioned divisions matters were left as they were found; but in Java tentative changes were introduced that subsequently became permanent measures.

To lighten the burdens that lay upon the native population Raffles abolished most of the feudal services and the forced labour that had been kept up by the old Dutch East India Company, retaining, however, the tithe system. These tithes had been imposed from time immemorial upon the produce of the land, and were payable in kind; they were now regulated according to the cost of production. Raffles was nevertheless compelled to connive at certain exceptions for which there was no real justification, such as the employment of impressed labour for road-making, and obligatory deliveries from the Preanger coffee-plantations.

Raffles decided to reintroduce into the administration the officials who had held office under the Company and who had been temporarily set aside during the Napoleonic period—the Residents and their assistants. The Residents were the heads of the civil and financial administration, of the law, and of the police. The natives, however, never came into immediate contact with these Europeans who ruled the destinies of their country; all orders came through their own princes—

the 'Regents'. Though the authority and influence of the latter, upon whose personal attributes the immediate welfare of the natives depended, became even more limited than hitherto, Raffles, in order to enhance their apparent importance, gave them larger incomes and more extensive personal estates.

Slavery was almost exclusively limited, among European slave-owners, to domestic service in the houses of the rich, and was combated by the new Governor to the full extent of his power by a tax on slaves. He also endeavoured to diminish the use of opium by a heavy duty on its import; but the opposition of the Calcutta merchants frustrated this measure.

Greater success attended Raffles's attempt to release the Javanese from the oppressive yoke of the salt monopoly. All such districts as were favourably situated for the production of salt had been farmed out by the Dutch to the Chinese, who were given unlimited authority over the inhabitants of the districts they held on lease, with power not only to enforce labour in the salt-pans but to impose taxes upon the produce of the adjacent rice-fields. Raffles rescued the natives from the extortions of the Chinese by placing the salt industry entirely in the hands of the Government; and this beneficent change of policy was not afterwards revoked by the Dutch.

Enough has been said to prove that sweeping reforms were not only planned but largely carried out during the very brief period of occupation by the British. Soon after Napoleon's overthrow Raffles was informed that the East Indies were to be restored to Holland, and this news paralysed his efforts and his zeal. He had no guarantee that the Dutch Government would continue to carry out the reforms he had instituted; and the period of his rule ended in chaos. Before the restoration of the islands to Holland Raffles was succeeded

for a few months by John Fendall, who handed over the administration to three Dutch Commissioners on August 19, 1816.

(5) Restoration of Dutch Rule, 1816

The difficult task of these Commissioners was to determine which system was henceforth to be adopted —that of the old Company or that introduced by Raffles. In other words, should there be monopoly and compulsion, or free trade and free labour ? Finding that the English spirit of reform had been enthusiastically welcomed both by the native population and by their rulers, and therefore made for contentment and prosperity, whilst the old respect for Dutch authority had even in the comparatively short interregnum dwindled to a shadow, they decided to adopt in its entirety the policy of the great English administrator.

Foremost among the ideals of the Commissioners was that of emancipating the natives and protecting them from the rapacity of their own rulers. The latter were, therefore, in the first place dispossessed of their official, as distinguished from their private, estates; secondly, they were forbidden to conclude contracts with the *dessas*, or villages—a custom which had led to much oppression ; thirdly, they were prohibited from carrying on trade, and so misusing their power by the employment of forced labour.

But time wrought changes in these good resolutions and measures, which may fairly be regarded as the legacy left by Raffles and five years of British rule. Van der Capellen, one of the three Dutch Commissioners, was in 1819 made Governor ; and, from the moment that he took office, a new spirit seems to have possessed him. It had been the aim of Elout, one of his former coadjutors, to encourage free labour and to invite the introduction of foreign capital into Java ; for he con-

tended that the industry of the natives, if left to itself, would have attained no results at all in keeping with the favourable prospects of the island. All obstacles that stood in the way of private enterprise had been as far as possible removed ; and in 1818 it was expressly resolved that untilled lands were to be leased to Europeans, so that they in their turn might enter into agreements with the inhabitants to cultivate them. Van der Capellen, on the other hand, left nothing undone, when he became Governor, to thwart and oppress private enterprise ; and much of the good that he had suffered to be done whilst acting with his two former colleagues he now deliberately annulled.

Always inimical to Holland's power, Raffles now, as Governor of the British possessions on the west coast of Sumatra, did all he could to counteract it throughout the archipelago. Dutch statesmen, foiled by the *coup-de-main* by which Great Britain won Singapore in 1819, and chagrined by the rapidity with which British enterprise had in a relatively brief period brought that port to a state of prosperity hitherto unknown in its history, made haste to conclude a treaty in 1824 by which a conflict with Great Britain might be avoided.

By this treaty it was stipulated that neither British nor Dutch agents should form any new settlement on any of the islands in the eastern seas without previous authority from their respective Governments in Europe. Holland ceded to Great Britain all her establishments in continental India ; the factory of Fort Marlborough (Benkulen) and all other English possessions in Sumatra were ceded to the Netherlands ; and the town and fort of Malacca and its dependencies went to Great Britain. A further stipulation was made that no Dutch were ever to form any establishment on the Malay Peninsula or to conclude any treaty with any native prince or state

thereon; the same condition was imposed on the English with regard to Sumatra. England withdrew her objection to the occupation of the island of Billiton and its dependencies by the Dutch, and the Netherlands acted reciprocally with regard to the occupation of Singapore by the English.

(6) The Netherlands Trading Company

Twelve days after the treaty of 1824 was signed, the Netherlands Trading Company was established to promote trade and commerce with the Dutch East Indies by vessels flying the flag of any state friendly to Holland; but this company, unlike the Dutch East India Company established in 1602, was to have no share in the administration of any colony.

Conditions had indeed entirely changed. In 1602 the States-General had granted the East India Company a charter in order to stop the over-keen competition of numerous small companies. The spirit of enterprise then reigning throughout the nation had to be bridled. In 1824, on the other hand, the King had to reinstil into his subjects the desire for great undertakings and to resuscitate the old national love for maritime adventure. The hopes that commerce generally would revive upon the conclusion of peace had failed to materialize, and the failure was attributed largely to the far from flourishing condition of East Indian trade.

The example set by the sovereign in subscribing four million guilders (£333,333) to the new company was eagerly followed by his subjects; and the undertaking, which was to be so intimately connected with the history of Dutch East Indian possessions, was started with a capital of over £3,000,000. Its charter was for a quarter of a century, and was renewed in 1849, in 1874, and in 1900 for a similar period, that now current being due to expire on December 31, 1924.

The capital of the company has to-day grown to £5,000,000, and the dividends paid for the ten years ending 1913 averaged 9·65 per cent. per annum; that of 1914 was 8 per cent.

(7) Unrest and the Java War, 1825–30

Van der Capellen in his long administration (1819–35) was faced with many grave problems. The iron rule of Daendels had instilled fear, but little confidence, in the native rulers. Under his successor, Janssens, the Dutch flag had made way for the British. The thoroughness of Raffles's reforms was recognized; and, when Dutch administration was restored in 1816 and England retired, suspicion began to circulate among the populace that 'the Company' (as the Netherlands Government was universally called by the natives) was much less powerful than had been thought. The Mohammedanism of the people of Java—more than 90 per cent. of whom adhere to that religion—strengthened their political aspiration to throw off the yoke of the unbelieving European; and before long a spirit of opposition, defiance, and revolt was abroad.

In the districts around Krawang and Cheribon, and in the Moluccas, Celebes, Riouw, and Palembang, there were risings necessitating the despatch of military expeditions. The most important of these small wars was that which raged from 1825 to 1830 in Java. Its chief causes were (1) the decision of the Government to cease leasing untilled lands to Europeans, that they might give employment to natives, and (2) the extortion practised on the natives by the Chinese, now principally in the new rôle of farmers of toll-gate dues. The right of the native rulers to exact these toll-gate dues had in 1812 been taken over by the British in return for adequate compensation, and was naturally transferred in 1816 to the Dutch authorities, who

immediately leased it annually to the Chinese, to the great disgust of the native population. Matters came to a head through a slight put upon Dipa Negara, uncle and guardian of the young Sultan of Jokyakarta, by a tactless Resident. It took five years to quell this unfortunate rising, during which whole districts were depopulated. It cost Holland alone 12,000 men and a sum of 32 million guilders (£2,666,666); the total loss of life has been estimated at 250,000. Dipa Negara was actually taken whilst holding parley with the Governor-General under what he claimed to be a safe-conduct; how far the Government's action was justifiable has been keenly debated but never made quite clear. Dipa Negara was ultimately banished to Macassar, where he died in 1855.

Profiting by the fact that none of the 'Regents' nominated by the Government had taken the part of Dipa Negara, the Dutch authorities decided to mark their victory by further limitation of the powers of the native rulers, and in pursuance of that policy assumed the direct administration of several more provinces. It is, however, significant that the toll-gate dues, which had given rise to such great oppression of the native, were entirely abrogated.

(8) Van den Bosch and his Policy

The Java war came to an end in 1830, at a critical moment in the history of the Netherlands. Money was urgently required to meet expenditure due to the Belgian rising; and the King, setting aside the advice of Elout, and of Du Bus de Ghisignies (who had been Commissioner-General during the latter part of the Java war), adopted the colonial policy propounded by Count Van den Bosch, who had but lately returned from the West Indies, and appointed him Governor-General of the Eastern possessions.

The appointment of Van den Bosch once more wrought a great change in Dutch colonial administration. It had always been a custom for the natives to pay taxes in kind, produce being accepted at a fixed price. The old East India Company, aiming at continuity of the native form of government, had always, when extending its domination, left such internal civil institutions untouched, and the sway of the native rulers, with all rights of succession, unquestioned. The 'Regents' were responsible for due delivery of the produce of the tax in kind; and it was for them to determine in what proportion their subjects were to bear the imposts.

Immediately on his arrival in Java, Van den Bosch introduced a new system of cultivation and taxation, the chief aim of which was to obtain speedily considerable profit for the Netherlands. Hitherto the natives had been obliged to give up on an average two-fifths of their harvests as a rent-charge or land-tax. Van den Bosch decided to remit this charge upon the harvest if the farmer would plant one-fifth of his soil with products destined for the European market. Should the value of the crop exceed that of two-fifths of the old harvest, the surplus was to be returned to the grower.

Very soon after the introduction of the new system it was possible to send large sums to the Netherlands; and the wisdom of Van den Bosch was highly commended. But these brilliant results were paid for by the exploitation of the native and in many districts by the exhaustion of the soil. Few colonial policies have occasioned so much misery. Coffee is a plant that yields only after six years of cultivation; so it was somewhat neglected for a long time owing to the demands for immediate profits; and indigo, sugar, and tea took its place. Tea, proving a comparative failure

for profit-making purposes, was soon discarded ; indigo was retained, with great injury to the whole of Java ; for its cultivation exhausted the soil to such an extent that fresh land had constantly to be sought out, to the detriment of the rice crops. With an ever-increasing population there was therefore a corresponding decrease in the supply of rice, the staple article of food ; and the results of this were lamentable. Not only was a great deal more than the stipulated fifth of the land frequently planted with produce for the European markets, but the land-taxes were raised and feudal services imposed to a scandalous extent. In this way the natives of fertile Java were impoverished and forced, in many cases, into revolt. It was not, perhaps, that the system itself was bad, for it certainly stimulated industry and intelligence among the natives, but it lent itself too readily to abuse, and undoubtedly was grossly abused.

The history of the Van den Bosch system of cultivation may be divided into two periods, the first of which ends in 1850 and includes the process of its extension and of its more intensive application. During that time Dutch colonial policy was dictated solely by the mother country's need of money. But in the middle of the century the influence of the revolutionary wave that swept Europe in 1848 was clearly felt in the East, and the system was gradually improved and limited.

It is curious that the compulsory cultivation of coffee and its delivery to the State continue to-day, though coffee did not, upon the introduction of 'the system', commend itself to the Government as paying produce. From 1850 to 1870 the annual yield of Java coffee averaged about 50,000 tons. In 1880 it was over 60,000 tons. For many years the profit accruing to the Netherlands Treasury from the sale of Java coffee amounted to £3,000,000 annually ; and, in spite of the

fact that, from a variety of causes, the yield has become much smaller, higher prices still make it a considerable source of revenue.

(9) 'Max Havelaar'

The mistaken policy of the Netherlands Government in sanctioning, and in concealing from the Dutch nation, the oppression practised in the East Indies for the sake of gain was forcibly brought home in 1860. At that time colonial circles in the Netherlands were divided into two parties. The one was formed of friends of the State culture system in Java, who extolled the commercial welfare it produced. In the other were the friends of free labour, who contended that Java would only attain full prosperity if all forced service and cultivation were abolished and the natives were given an opportunity of selling their services in the open market to private enterprises financed from Europe.

Into these opposing camps a novel entitled *Max Havelaar* fell like a bombshell. It was written, under the nom-de-plume of 'Multatuli', by Eduard Douwes Dekker, who had from 1839 to 1856 held various posts in the Dutch East Indian civil service. He had been so much impressed by the inhumanity of the system he had been called upon to administer that, although without any private means, he had resigned his appointment of assistant Resident and given up all his prospects in order to return to Holland and place his views before the Dutch public.

Though *Max Havelaar* was presented in the form of fiction, its incidents were founded on facts, and it formed a severe indictment of the policy pursued for two and a half centuries by the Dutch in the management of their East Indian possessions. It proved, to the satisfaction at any rate of a large section of the Dutch

nation, that the Home Government, whilst ordering humanitarian rule on paper, in reality connived at slavery. Theoretically the Javanese peasant was a free man; in practice he was a chattel. The Dutch had found ready to hand in the East what they did not find in the West Indies, in America, or in the Cape of Good Hope—a huge labouring population, or rather, a huge population that could be forced to labour. This being so, there was no necessity for them to found real colonies; and the Dutch East Indies, according to Dekker, were not colonies in the true sense of the word, but mere money-making concerns.

All this 'Multatuli' told his countrymen, stating that the reports of the Government officials transmitted to the mother country were for the greater and more important part untrue. He gave artistic form to a recital of extortion and oppression which he nevertheless offered to substantiate with legal proofs. He even reproduced the despatches he had written to his last chief, the Resident of Bantam, concerning the particularly flagrant act of maladministration that had roused him to fighting pitch, and, finally, a letter which, after his resignation had been accepted, he had sent to the Governor-General of the Dutch East Indies. In this he accused that high official of having sanctioned the system of abuse of power, of plunder, and of murder that oppressed the Javanese. A well-informed reader will probably feel, however, that much of his indictment might have been applied at that date to any other tropical territory governed by Europeans.

Max Havelaar was never refuted; as its author asserted, 'refutation of its main features was impossible'. Its accusations were hushed up; but Holland was too democratically governed to make suppression of the book possible. 'It sent a thrill throughout the country,' as was admitted in the Netherlands Parlia-

ment. The system it condemned was too strongly rooted to be overthrown by 'a thrill'; but abuses have been gradually diminished, and the system itself has now been almost entirely abandoned.

In March 1887 an address, signed by 100 men experienced in East Indian affairs, was presented to the King submitting, *inter alia*, the following considerations: (1) the very unsatisfactory condition of affairs in the East Indies; (2) the dissatisfaction of the populace, caused by industrial depression and intensified by the financial measures of the administration; (3) the suppression by unusual measures of public signs of this dissatisfaction; (4) the greater necessity, in these circumstances, for reliance on the army and navy; (5) the parlous condition of both these services in the East Indies; (6) the loss of Dutch prestige and the danger of foreign interference, seeing that Holland had nominally extended its dominion over a very wide zone important for trade, but was quite unable in reality to protect persons and property within that zone; and (7) the necessity of immediately reinforcing Dutch arms in the East to such an extent as to put a speedy end to all risings, and to restore peace and confidence. Like *Max Havelaar*, this address had no immediate results, though both had far-reaching effects upon the policy followed by subsequent Governments.

The 'Culture System' in Java was defended by two Englishmen in books published in 1861 and 1869 respectively. *Java, or how to manage a Colony* (London, 1861, 2 vols.) was written by J. W. B. Money, 'a clever Calcutta barrister', as the result of 'a trip in the summer of 1858'; and the numerous contrasts the author draws between Dutch and British colonial administration all serve to bolster up his indictment of British rule in India. The author's chief test of the

prosperity of a colony is the amount obtained from it; for first among the chief results of General Van den Bosch's policy he places the raising of the revenue in 25 years from two millions to nine and a half millions sterling—though taxation increased from 6s. 8*d.* to 16*s.* 6*d.* per head of the population. The book cannot be considered a refutation of *Max Havelaar.*

Nor can the strictures passed on *Max Havelaar* in 1869 by Alfred Russel Wallace, the well-known naturalist, in his book *The Malay Archipelago,* be taken very seriously. This writer was three months and a half in Java, and during that time was principally occupied in making researches into its natural history. It is admitted in the works of both Money and Wallace that they were greatly indebted for their information, and for assistance generally, to the Dutch.

Free labour is now almost universal, except that the State still has power in some Residencies to enforce statute labour for the construction and maintenance of roads and other purposes; but in no district of the Dutch East Indies may the number of days' labour required exceed 52 per annum, this being the maximum for Tapanuli and Palembang in Sumatra. In most parts of the Outer Possessions the maximum is much lower; in Billiton it is only 24, and in south and east Borneo 26. Statute labour is gradually being abolished entirely; and in Java and Madura—as a result of regulations made in 1914, 1915, and 1916—such service can only be demanded for the transport of Government officials and troops, or for the laying out and repair of roads and irrigation works, and then only if free labour is not obtainable. Moreover, such work on roads and irrigation must be paid for. Of course the Government has power to call upon all able-bodied men for statute labour to avert or repair public disasters. Neither native rulers nor Government officials may

demand personal services for their own benefit, whether gratis or for payment, from the native population.

The abolition of liability to statute labour in Java has involved the substitution of a capitation tax for natives. Capitation in lieu of personal service has also been introduced in Sumatra West Coast (1914); but in the Outer Possessions generally it is considered necessary to retain statute labour for certain purposes, since the natives in many islands will not work even for payment unless compelled, as they have all they need without working for it. The tasks imposed upon them in these cases are the construction and maintenance of roads, bridges, waterworks, market halls, &c., the guarding of public buildings, the working of ferry-boats, and the carrying of letters. Land may now be leased by the natives for their own sole and unencumbered use.

III. SOCIAL AND POLITICAL CONDITIONS

(1) Religious

The religion of nineteen-twentieths of the population of the East Indian Archipelago is Mohammedanism, first introduced, according to Malay tradition, from Further India into Sumatra early in the thirteenth century. A form of Hinduism, modified by Polynesian religions, had been already established in Sumatra; and the Mohammedanism that soon spread to other islands was a blend of all these religions. Islam, as professed to-day throughout the Dutch possessions, though now purified by closer intercourse with Mecca, still bears traces of Hinduism and animism. Law and custom, too, have been profoundly influenced by religions that play so great a part in the daily life of those who profess them; and the European legislator must never forget the syncretism of Hindu, Mohammedan, and pagan ideas with which he has to deal. In Java (where the percentage of Mohammedans is greater than in any other island) the political power of Hinduism held its own till the middle of the eighteenth century; and this syncretism is apparent even to-day. While respect is carefully paid by the Dutch to the dogmas and the religious usages of Mohammedanism, they are keenly apprehensive of the danger that might arise from a too zealous propagation of pan-Islamism. The Sarikat-Islam movement is carefully watched and kept in check by the minor officials. The religion of the Tenggerese is Brahminism corrupted by animistic beliefs. There are about 26,000 Christians in Java.

(2) Political

In theory it has always been a principle of Dutch colonial policy to maintain native self-government, and, so far as practicable, in its original form. But in practice the Dutch possessions are still administered as conquests. Even in the so-called self-governing states the inhabitants have no real voice in the government, although quite recently some measure of local self-government has been conceded. But native customs and ceremonials have been sedulously respected.

Native Rulers.—Formal relations between the Dutch Government and the native rulers have always been regulated by treaties and declarations. Formerly the observance of a few simple conditions, such as the prevention of piracy, abstention from entering into relations with foreign princes, and the grant of monopolies in certain commodities, was all that was demanded. Gradually, these treaties were revised and enlarged. Those now in force guarantee, on the part of the native ruler, the protection of agriculture, navigation, trade, industry, and education, and the suppression of slavery. Since the beginning of the present century simplification has been aimed at; and in 1914 only twenty treaties of the old and complicated type were in existence, side by side with some three hundred of a simpler form known as the 'Short Declaration'. In the latter the Dutch Government guarantees maintenance in return for the obedience of the ruler or 'Regent', supervision over the latter being exercised by the Resident and his assistants.

The Governor-General and Council.—The Governor-General, aided by the Council of the Indies, not only has supreme executive authority, but can of his own accord decree minor laws and regulations. He is of course bound by the constitutional principles on which, accord-

ing to the 'Regulations for the Government of Netherlands India', passed by the King and the States-General in 1854, the Dutch East Indies must be governed.

The public finance of the Dutch East Indies as a whole is dealt with below (see p. 76). Each of the self-governing states has now, however, a Treasury (*Landschapskas*) of its own, into which all local taxes, fines, &c., must be paid, and the ruler's Civil List is determined annually by the Government.

Local and provincial autonomy of administration in directly governed areas was abandoned in 1903, when measures were passed giving the smaller and subordinate administrative units a certain degree of autonomy in regard to their own local affairs. In 1905 laws came into force approving the formation of provincial, district, and municipal councils—these terms relating to Residencies, districts, and towns respectively. The first members were nominated by the Government, but the elective principle was introduced in 1908.

With the exception of the two Principalities of Surakarta and Jokyakarta, established by the Dutch in 1755 when they broke up the empire of Mataram, every province in Java has its provincial council. Eighteen towns possess municipal councils, fourteen being in Java, four in the Outer Possessions. Residents, however, are the supreme administrative officials in all territories where there are not Governors.

Residencies. — The Residencies of Sumatra are enumerated in *Sumatra*, No. 83 of this series, p. 1.

Borneo is split into two Residencies for administrative purposes, the one called West Borneo, the other South and East Borneo. The former is divided into nine districts, the latter into six.

Most of the Lesser Sunda Islands are components of

the Residency of Timor, the seat of which is at Kupang in south-western Timor. Bali and Lombok, however, form one Residency, the seat of which is at Singaraja on the island of Bali, with various assistant Residencies and other subdivisions. Sumbawa and the western part of Flores belong to the Residency of Celebes and Dependencies.

North New Guinea is a division of the Residency of Ternate, while West New Guinea and South New Guinea are divisions of the Residency of Amboina.

Southern Celebes is governed from Macassar, which is the seat of the Government of Celebes and Dependencies, as well as of an assistant Residency. The northern part of Celebes forms the Residency of Menado, while a portion of eastern Celebes is still included in the Residency of Ternate.

A Governor has somewhat wider powers than a Resident; and the Governments of Atjeh (Achin), Sumatra East Coast, and Celebes and Dependencies are maintained chiefly because the populations they control have required severe military repression in the past, and might again give trouble.

Public Loans.—The Provincial, District, and Municipal Councils are empowered to borrow money, when sanctioned by an ordinance, which states how the loan will be redeemed and a minimum rate at which it will be issued. At the end of 1914 four provinces and seven municipalities had loans running at rates of interest which varied from 3·2 per cent. to 6 per cent. The total nominal amount was fls. 5,486;600, of which fls. 5,211,827 had been placed. The municipality of Surabaya, for instance, has taken over the waterworks from the Government at a yearly interest of 3·2 per cent.

Law.—The legal system falls under two heads: (1) law and jurisdiction for Europeans and those enjoying

the same rights, of which the main principle is that the law and its administration should be similar to that of the mother country; (2) law and jurisdiction for natives and those enjoying the same rights (Chinese, Arabs, and other Asiatic or African natives). The object is to adapt the civil law and its administration as much as possible to the native law, based as it is upon Mohammedan principles, and to make the criminal law almost identical with that for Europeans.

The convictions on criminal charges in the year 1911 totalled 16,842, including 124 European men and 7 European women. 12,808 native men and 460 women were sentenced in the name of the Queen; 533 men and 11 women were sentenced in the names of native rulers. Also 2,899 Eastern aliens, including 114 women, were sentenced in the name of the Queen. Under the heading of misdemeanours and torts, in 1911, 45,141 persons were charged in European and native courts of first instance and 94 in appeal, while 482,094 persons were charged in police courts and 88,650 in Regents' and district courts. In Java and Madura minor civil and criminal cases (natives only) are heard in the Regents' or district courts, which are held by the Regent or Head of the district as the case may be. The number of civil cases, excluding appeals, heard in 1911, were 6,175 in European courts and 45,987 in native courts.

(3) Naval and Military Organization

Army.—The colonial army (entirely separate from the Netherlands home army) consisted in 1916 of 1,139 officers and 38,196 men of whom 8,657 were Europeans.

Navy.—The Netherlands navy in the East Indies consisted in 1916 of 27 warships manned by 251 officers and 3,355 men, of whom 2,024 were Europeans. A colonial navy consisting of 22 vessels and manned by

906 officers and men performed duties which were to all intents and purposes civil.

The cost of upkeep for both army and navy was estimated to amount to £6,155,576 for 1917.

The defence of the East India possessions has exercised public opinion in the Netherlands a great deal in recent years. A State Commission appointed to examine the question published its report in 1913, of which the main conclusion was that adequate defence could only be undertaken by naval forces; and that, in order to allow for the provision and maintenance of these on an adequate scale, the amount spent on the upkeep of a Dutch army in the East Indies should be considerably cut down. Recommendations involving large increases of expenditure by both the Netherlands and the East Indian exchequers were accordingly made.

(4) Educational

Unwillingness to oppose the religious inclinations of the Mohammedan population by repressing the teachings of Islam that permeate the instruction given in the native *dessa* or village schools has greatly retarded the spread of Western education throughout the East Indian Archipelago. Another potent factor has been the struggle for existence, which set a premium on the employment of child labour. Till 1816 no attempt was made by the Government to establish State schools, and not till 1848 was any sum voted for the establishment of Government schools for natives only.

Elementary education for natives was provided in 1912 in Java and Madura in 795 Government schools with 160,733 pupils and 478 private schools with 49,484 pupils. In the Outer Possessions there were 442 Government schools with 81,147 pupils and 1,987 private schools with 138,327 pupils. There were also in Java and Madura, 2,531 *dessa* schools with 166,965

pupils, where elementary instruction was given in the vernacular. The cost to the Government of education for natives was in 1912, 5,017,701 guilders (£418,000).

Elementary education for Europeans and others assimilated with them was provided in 1912 in the whole of the East Indian possessions in 247 schools for 26,453 pupils, at a cost to the Government of 3,431,649 guilders, and secondary education in 20 intermediate schools for 3,845 pupils at a cost to the Government of 913,863 guilders.

Out of a population of roughly 45,000,000, therefore, instruction was provided for only 626,954 pupils at a cost to the Government of 9,363,213 guilders (£780,000).

GENERAL OBSERVATIONS

Present Material Condition of the Natives

In 1895 a financial expert, N. P. van den Berg, wrote:

On the whole the state of affairs, so far as European enterprise is concerned, cannot be called prosperous, and, considering the prominent place European enterprise occupies in the economical development of this colony, it is scarcely surprising that the same conclusion also applies to the general welfare of the country.

Eight years later a member of the Netherlands Parliament, H. van Kol, wrote:

The Javanese are sinking deeper into poverty. This is no longer a contention but an indisputable fact. Many districts of the island are over-populated; annually 500,000 fresh mouths ask for food, and the soil, exhausted and impoverished, produces even less rice, and of poorer value. . . . The large majority of the natives have grown so poor that insufficient food predisposes them to epidemics. . . . Why this state of misery in rich Java? Why such want in one of the most fertile portions of the globe? Because the Javanese were made to labour while others acquired riches at the cost of native want—

because the avarice of the white man sucked the land dry and caused the native to drop under the heavy burden of the chains we laid upon him.

And the following is taken from C. Th. van Deventer's *Overzicht van den economischen toestand der inlandsche bevolking van Java en Madoera*, published in 1904 at the instance of the Ministry of the Colonies :

The staple industry of the native is what it has been from time immemorial—agriculture. The number of those who have to find sustenance from this industry has considerably increased. The increase in the size of the area under cultivation has, however, in the last quarter of a century, not been proportionate to the increase in population (the irrigated areas having increased least of all), and the increase in cattle has also been comparatively small.

Though in the low-lying land the cultivation of sugar has greatly increased since 1880, it has brought the landowner little profit, while the industries connected with it bring the workers small and ever-decreasing wages. The cultivation of indigo must soon be entirely abandoned; and that of tobacco just holds its ground in one district only, though not without difficulty.

The profits accruing from the cultivation of coffee by the Government are but a shadow of what they were twenty-five years ago ; and the progress made in the cultivation of quinine and tea by private enterprise, chiefly limited to Western Java, where low wages rule, does not compensate for the decline in the cultivation of coffee by private planters.

On the whole, Javanese agriculture must be regarded as decidedly declining, this decline revealing itself in a constant dearth of money that has brought a great part of the population into the hands of usurers and consequently into greater straits. The sources of revenue other than agriculture have not appreciably increased during the last twenty-five years. Manufactures occupy a very modest place ; those of an indigenous nature have scarcely maintained their position.

Fisheries and fish cultivation have failed to keep pace with the increase in population ; and fish as a food has had to be replaced by other imports.

It is quite exceptional to find a trade that furnishes a wage enabling the native to procure more than the bare necessities of life. The average income of a household in the agricultural, fishing, or small trading classes, who certainly form nine-tenths of the whole population, may safely be computed at 80 guilders (£6 15*s.*) per year, hardly ever exceeding 100 guilders (£8 6*s.* 8*d.*). From this sum about 9 guilders (15*s.*)—fully eleven per cent.—must be deducted for the payment of taxes in cash; if the taxes in labour and land, still imposed on a large proportion of the population, are also taken into consideration, this raises the total taxation to nineteen per cent. or more.

Since the above was written rubber enterprises have come into being, and in 1914 there were 674 rubber estates in the Dutch East Indies, comprising 326,143 *bouws* (1 *bouw* = $1\frac{3}{4}$ acres) cultivated with rubber alone and 130,281 *bouws* planted with rubber together with other cultures. The condition of the natives appears to have steadily improved during the last twenty years.

English business men who have resided recently in Java speak in enthusiastic terms of the richness of its soil, and have no fault to find with the official methods of controlling the natives. There are even many who claim that the compulsory cultivation system served a beneficent purpose by teaching the indolent native, albeit in a hard school, habits of industry and perseverance.

IV. ECONOMIC CONDITIONS

(A) MEANS OF COMMUNICATION

(1) Internal

(*a*) *Roads*

The road system in Java is admirable. The whole island is covered by main roads, post roads, cross roads, and by-roads, and every part can be reached by wheeled traffic. It is estimated that of the roads maintained by the Government in Java and Madura there are about 3,500 miles of first-class roads, 3,900 of second-class, and 7,500 of third-class. A magnificent road, constructed during the French occupation, runs along the whole northern side of the island. The roads are well kept, in spite of the heavy rainfall, and on the main roads fresh horses or petrol can be obtained at intervals of 5 or 10 miles. The Government spends money freely on repairs and improvements, which are carried out by paid native labour. Many plantation companies maintain private roads of their own.

(*b*) *Rivers*

As means of communication the rivers of Java are relatively unimportant. The only ones navigable by vessels larger than native praus are the Tjiliwong, Tjitarum, Tjimanuk, and Tjitanduwi, in West Java, the Serayu, in Middle Java, and the Solo and Brantas, in East Java. The Solo is navigable by small vessels for 310 miles, and large ocean-going vessels could use its estuary if it were not for sand-banks. The Gentung, a tributary of the Solo, is also navigable in parts. Many

attempts have been made to improve the rivers, but the continual deposit of silt and growth of weed prevent any success.

(c) *Railways*

At the end of 1914 there were over 1,500 miles of railway in Java, also 1,311 miles of steam tram-lines, and an electric tram-line at Batavia, 11 miles in length. All the standard-gauge railways are controlled by the State, except one belonging to the Nederlandsch-Indië Spoorweg Maatschappij ; this line is about 128 miles in length, and runs from Semarang to Surakarta and Jokyakarta. The State also owns about 51 miles of narrow-gauge lines. Most of the steam tram-lines are privately owned.

The service of trains and trams is punctual and safe. A limited express, with a refreshment car, runs daily in each direction between Batavia and Surabaya (about 480 miles). The electrification of the railway from Batavia as far as Bandung will shortly be effected. All the railways pay excellent dividends. In 1914 the Government standard-gauge railways in Java and Madura carried 39,212,177 passengers and 4,569,015 metric tons of goods ; their net revenue was fls.[1] 14,044,955, which represented 6·71 per cent. on the total capital invested.

The network of railways in Java is being extended. Between 1906 and 1914 the sub-department dealing with new permanent ways opened about 236 miles of track to traffic, and, as each extension immediately becomes profitable, the Government has every encouragement to undertake further developments. In December 1912 permission was granted to build a line from Cheribon to Kroja, 97 miles in length, to shorten the journey between Batavia and Surabaya. At the

[1] 1 florin = 1*s*. 7·8*d*.

end of 1914 there was also under construction a line connecting the State railway at Banjar with the plain of Parigi.

(*d*) *Posts, Telegraphs, and Telephones*

In 1914 there were 542 post and telegraph stations in Java and Madura. Couriers, mail carts, horses, and boats are used to convey letters in parts where there is no railway or tramway. The Government's land telegraph lines in the Dutch East Indies in 1913 extended over 14,524 miles, and its sea cables and subterranean lines over 6,116 miles.

The Government controls the telephone system. There is telephonic communication between most of the principal towns in Java, and there are excellent local telephone installations at Batavia, Surabaya, and other towns.

(2) External

(*a*) *Ports*

(i) *Accommodation.*—The four principal ports of Java are Batavia, which has no harbour of its own, but depends upon that at Tanjong Priok; Surabaya, on the Strait of Madura; Semarang; and Tjilatjap.

Batavia and *Tanjong Priok.* At Batavia large ships anchor in the roads about a mile from the pier-head, in 5 or 6 fathoms. Vessels are discharged and loaded by lighters.

Tanjong Priok lies about 4½ miles east of Batavia, with which it is connected by rail and canal. The roadstead is 24 miles in length and 8 miles in width. The harbour is near the mouth of the Tjiliwong. The outer harbour, 6,000 ft. long and 136 ft. wide at the entrance, is enclosed between two jetties of hewn stone. The inner harbour is 4,000 ft. in length and 500 ft. in width, with a depth of 28 ft. at spring

tide and 24 ft. at neap tide. There are quays 4,400 ft. in length, and there is a Government cylinder floating dock for the use of hoppers and dredgers, besides a dry dock and a cylinder dock belonging to the Tanjong Priok Dry Dock Company. Extensive alterations in the inner harbour are in progress. When they are completed there will be about 1,180 ft. of quay with a depth of 40 ft. alongside, about 11,480 ft. of quay with a depth of 26–30 ft. alongside, a floating dock for vessels up to 4,000 tons, and ample room for go-downs and warehouses. The railway terminus will have to be removed to make room for these extensions.

Surabaya is the naval port of the Dutch East Indies, and vessels drawing 28 ft. can enter the Dutch Naval Basin. Merchant vessels, however, can only enter this basin by special permission, and as a rule have to anchor in the roads to the north of the town, in 6–10 fathoms. Goods have to be brought by lighters from the roads to the quays of the old port. The harbour has two entrances, both with bars, the depth at high water spring tide being about 24 ft. at the western entrance and 22 ft. at the eastern. In 1914 it was announced that the Kalimas river at Surabaya was to be deepened and widened, and that a large basin, 3,281 ft. square, was to be constructed for lighters. A considerable area of marshland has been reclaimed, and space provided for the storage of coal, petroleum, and general merchandise.

Semarang, at the mouth of the little river Semarang, attracts nearly all the trade of Middle Java, and would be the principal port in the island if it had a better harbour and a safer and more capacious roadstead. The depth of the harbour entrance at spring tide is 7½ ft. at high water, and 5½ ft. at low water, while the depth alongside the quays at high water spring tide is 8½ ft. A breakwater at the mouth of the river forms

a harbour for lighters and small vessels. The water is 9 ft. deep near the end of the pier, which is about 1,500 ft. in length, and is to be extended by another 1,312 ft. The harbour has to be continually dredged. There is a small dock for passenger steamers and tugs, but it can only be used at high water. There is a crane capable of lifting 25 tons. A small fishing harbour and a new harbour for lighters are under construction.

Tjilatjap is the principal port on the south coast of Java, and its importance is increasing with the development of agriculture in the southern part of Middle Java. At the harbour entrance there is a depth of 24 ft. at low water spring tide, and of 26 ft. 5 in. at low water neap tide. Vessels of 18 ft. draught can load at the wharf at low water spring tides, and vessels of 23 ft. draught have used part of the jetty at low water. There are three movable cranes capable of lifting 2–3 tons, and a 15-ton fixed crane.

The chief of the smaller ports of Java are as follows:

Banyuwangi is on the Strait of Bali. There is no bar; the entrance to the harbour is marked by nine buoys. The inner anchorage, divided from the outer by a newly formed sandbank, has a depth of 9 fathoms, and the outer anchorage has a depth of 11–13 fathoms; both furnish a good holding bottom. The outer portion is safer during the east monsoon owing to the high seas that prevail. There is a crane to lift 1½ tons.

Kraksaan is in Pasuruan, 11 miles east of Probolinggo, and has a fine anchorage 1½ miles from the shore in 8–9 fathoms.

Paiton is 3½ miles east of Kraksaan, and has an anchorage three-quarters of a mile from the pier in 10 fathoms.

Pekalongan is on the north coast of Middle Java, and has an anchorage 1½ miles from the shore in 3½ to 4½ fathoms, but the bottom is soft.

Probolinggo is on the Strait of Madura, and has a fine anchorage half a mile from the shore in 7 fathoms. At the entrance to the harbour is a long mole, with a lighthouse. The harbour consists of a great oblong basin, and the quays, at which vessels can moor, are provided with warehouses for coffee, sugar, and tobacco.

There are natural harbours on the south coast of Java in *Wijnkoops Bay* and at *Pajitan*, but the Dutch have not desired to attract trade to the south of the island for fear of exposing it to the attack of a hostile Power.

(ii) *Volume of Trade.*—The following table shows the number and tonnage of vessels calling at the four principal ports of Java in 1913:

Port.	*Number.*	*Tonnage.*
Tanjong Priok . . .	1,833	3,027,534
Surabaya	1,396	2,597,400
Semarang	1,203	2,605,875
Tjilatjap	331	471,098

The figures for the period 1910 to 1914 show a steady increase in the volume of trade at each of these ports.

(iii) *Adequacy to Economic Needs.*—Java is on the whole ill provided with natural harbours. In the Strait of Madura there is a current which sweeps away obstructions, but off other parts of the coast of Java the silting up of channels and anchorages is a constant anxiety to the administration. An official investigation was made in 1910, and in 1911 plans were laid down for the extension and improvement of the harbours, with a view to probable requirements many years ahead. Officials in charge of the larger harbours are assisted by committees of prominent local men with commercial and shipping interests. The enterprises undertaken have already involved large expenditure, to be defrayed ultimately, apart from

wharf, quay, and harbour dues, by the rents obtained from the leasing of plots of land adjoining the harbours. The amount spent on works in 1913 included fls. 2,622,384 at Surabaya, fls. 1,485,291 at Tanjong Priok, fls. 716,392 at Semarang, and fls. 50,000 at Tjilatjap.

(*b*) *Shipping Lines*

The *Koninklijke Paketvaart Maatschappij* is subsidized by the Government, and is required to keep up regular services between a large number of ports throughout the archipelago. It must carry mails free of charge, and convey servants of the Crown and Government property according to a fixed tariff. In 1909 a weekly fast steamer service was started, mainly for passengers, between Belawan-Deli (Sumatra) and Surabaya, *via* Singapore, Batavia, and Semarang. Before the war the two boats running were bringing from Singapore to Java every week 50 to 100 persons, who had been trans-shipped from French, German, or British boats. The voyage from Singapore to Batavia takes 38 hours, and that from Batavia to Surabaya about the same time. These two boats can take 833 and 1,082 coolies respectively as deck passengers. The company's steam and motor boats plying in the archipelago carry cargo and cattle as well as passengers.

Communication between Java and Australia is chiefly maintained by the *Java–Australia Lijn*, founded in 1911 and owned by the Koninklijke Paketvaart Maatschappij. The Government has undertaken to subsidize the service until 1920, up to a limit of half the annual deficit, on condition that the subsidies are to be gradually refunded. Twelve voyages yearly from Batavia must be made, the vessels calling at Semarang, Surabaya, Thursday Island, Brisbane, Sydney, and Melbourne, and at other ports if the company desires.

The *Java–China–Japan Lijn* was founded in 1902, and also receives a subsidy from the Government on condition that 13 voyages a year are made to China and Japan. In 1914 boats of this line made 17 voyages to China and 15 to Japan, also a number of voyages between the Dutch East Indies and Hongkong, outside the contract. The vessels start from Batavia, and call at Semarang, Surabaya, Macassar, Hongkong, Shanghai, and Kobe. Yokohama is included if a separate voyage is made to China. Banka and Billiton are regularly visited, though not under the contract, to take Chinese coolies to and from the tin mines on those islands. The Government sometimes charters vessels of this line to take Chinese coolies back to China from Banka. In 1915 the line started a monthly service between Java ports and San Francisco, which it intends to maintain with steamers of 10,000 to 12,000 tons, calling at Hongkong and Manila, and perhaps also at Japanese ports and Honolulu. This service owes its origin largely to the San Francisco Chamber of Commerce, and is most valuable for the increasing trade between Java and the United States.

The *Nederland Stoomvaart Maatschappij* and its sister company, the *Rotterdamsche Lloyd*, maintain regular weekly sailings to and from Holland. All Government passengers are compelled to travel by these ships. These two lines were jointly bound by contract before the war to perform the voyage from Genoa or Marseilles to Batavia in 25 days, and in 24 days between April 21 and October 1. They have cargo as well as mail steamers. They also, before the war, maintained a service of direct steamers between Java ports and New York, *via* South Africa, with sailings every three or four weeks.

The last two companies, together with the *Oceaan*

Nederlandsche Stoomvaart Maatschappij, have organized a special service for the transport of Mohammedan pilgrims from Batavia to Jedda. They convey about 1,600 pilgrims every year. The *Oceaan* company maintains a service of cargo boats between Java, Liverpool, and Amsterdam.

The *Java–Bengal Lijn*, founded by the Rotterdamsche Lloyd and the Nederland Stoomvaart Maatschappij, connects Java directly with Rangoon and Calcutta, with nine sailings a year, monthly during half the year and every two months during the other half. These vessels bring large quantities of rice to Java.

The *British India Steam Navigation Company*, of Glasgow, and the *Asiatic Steam Navigation Company*, of Liverpool, maintain cargo services from Java to Rangoon, Calcutta, Colombo, Pondicherry, Madras, Bombay, and Karachi, which carry large quantities of sugar from Java to India. Several British lines running from Singapore to Australia call regularly at Java ports. There is no direct service from Great Britain to Java, but before the war vessels of the *Ocean Steamship Company*, owned by A. Holt & Co of Liverpool, used to call at Glasgow and Birkenhead if they had any freight room available after loading at Amsterdam or Rotterdam.

Before the war the *Norddeutscher Lloyd* and the *Deutsch-Australische Dampfschiffs-Gesellschaft* regularly visited Dutch East Indian ports, and their share in the goods traffic had been growing rapidly.

The Japanese Government subsidizes a monthly service from Japan to Java by the *Nanyo Yusen Kaisha*, whose vessels call at Batavia, Semarang, Surabaya, Balik Papan (Borneo), and Hongkong. A new maritime trust is stated to have been formed in Japan in 1918, with a capital of 175,000,000 yen (about £17,864,500), a Government subsidy also being assured.

This would operate throughout the Far East, and the *Koninklijke Paketvaart Maatschappij* will have to meet serious competition.

There are numerous small companies at Singapore, many of them Chinese, whose vessels ply between Singapore and various ports in the Dutch East Indies.

(c) *Cable and Wireless Communications*

Java and Sumatra have been in cable communication since 1859. Banyuwangi has been connected with Port Darwin in Australia since 1872, and a duplicate cable was completed in 1879. Singapore was connected with Banyuwangi in 1879, and with Batavia (by a British line) in 1881. A French cable was laid from Saigon to Pontianak in West Borneo in 1904, and simultaneously a Dutch cable was laid from Pontianak to Batavia. The cable between Saigon and Pontianak was seriously damaged in 1913, and in June 1914 it was found impossible to repair it. In 1908 a cable was laid from Batavia to the Cocos Islands. Surabaya was connected with Balik Papan in East Borneo by a Dutch cable in 1913; Surabaya, Semarang, and Batavia were linked up with Padang, Siboga, Tampat-Tuan, and Sinabang in 1914.

It had been intended to connect all the islands of the Dutch East Indies by cables, but as the cost of laying and maintaining cables in these volcanic seas is high, the development of wireless communications has been undertaken instead.

There are wireless stations at Batavia, Semarang, and Surabaya, erected by the German 'Telefunken' Company.

In 1917 a provisional appropriation of fls. 5,000,000 was made in the Netherlands Budget estimates to provide independent wireless communication between Holland and the Dutch East Indies. For the direct

service from Holland to Java the special stations required will be erected near Apeldoorn in Holland and in the neighbourhood of Bandung in West Java.

(B) INDUSTRY

(1) Labour

Labour is cheap and plentiful in Java. At the time of the last complete census, taken in 1905, over the whole of the Dutch East Indies the native population was only 19 per square kilometre, but in Java it was 226 per square kilometre. Most of the Javanese are engaged in agriculture, and have no ambition to undertake skilled work. Their wants are few, and they are content with wages as low as 5*d.* for a ten-hour day. Statute labour in Java and Madura has been commuted for a poll-tax, ranging from fl. 1 in Madura to fls. 2·90 in Kediri. The commutation was effected gradually, and was not completed till 1916. Personal service may still be demanded at times of public danger, and the natives may be compelled to work for pay on repairs to irrigation works, &c. The village head-men may require certain local services from people under their control, but the native rulers of provinces are no longer allowed to exact gratuitous labour.

Large numbers of Javanese are employed in factories; at the end of 1915 there were 1,800 factories in Java and Madura, employing 58,000 workmen.

The Government is anxious to encourage emigration from over-populated districts in Java to Sumatra and Celebes, but has not so far been very successful. At the end of 1914, 1,751 families, chiefly from Kedu, were transported to a colony of about 20,000 acres in Lampong (Sumatra). Small numbers of natives from West Java have also been settled in Benkulen (Sumatra),

with the special object of teaching the Rejangs and the Lebongs to breed freshwater fish, but the total number of settlers, including women and children, was not more than a few hundreds between 1907 and 1914. A certain number of Javanese go to work on plantations in Sumatra and in Surinam. The system of recruiting contract coolies is described in *Sumatra*, No. 83 of this series. The majority of these emigrants do not return to Java.

The immigrants to Java include Chinese, Arabs, and other Orientals. Most of them are engaged in trade, but many of the Chinese are artisans and gardeners.

The Chinese are a very important factor in the industrial life of the Dutch East Indies. Four-fifths of the Java rice-mills are in their hands, besides many sugar factories. They are also largely engaged in the manufacture of furniture, and there are many skilled mechanics and carpenters among their number.

(2) Agriculture

(*a*) *Products of Commercial Value*

(i) *Vegetable Products.*—*Cassava* was introduced to the Dutch East Indies from Surinam a century ago, and is grown chiefly in Java, where in 1917 the area under cultivation was 717,487 *bouws*.[1] The root furnishes for export tapioca flour, manufactured chiefly by the natives and by Chinese and Arabs, and also cassava cake, used as cattle food. For local use the natives obtain alcohol from it, and also starch for paper-mills. In 1913 Java exported 102,770 metric tons of cassava products.

Cereals. *Maize* is widely grown by the natives, especially in East Java, and its cultivation has been increasing in Madura. In one or two mountain districts

[1] 1 *bouw* = $1\frac{3}{4}$ acres.

it has superseded rice. It is a popular crop, which requires little care in cultivation and little water, though on the other hand it can bear heavy rain if the ground is well drained. The ears are quickly gathered, and the stalks are used for cattle food. At the end of 1915 there were in Java 954,570 *bouws* under maize. The export in 1913 amounted to 49,000 metric tons.

Rice is grown in Java and Madura, mainly on irrigated land, and the harvest in 1914 amounted to nearly 6,000,000 tons. For details of its cultivation, see below, p. 62. Before the war the best qualities of rice were exported in small quantities, but the greater part of the crop was required for local consumption, as rice forms the staple food of the natives. Moreover, it was necessary in addition to import large quantities of inferior rice, chiefly from Rangoon, Siam, and Indo-China.

Wheat for European consumption was successfully grown in Java in 1917, in view of the shortage caused by the war, and in 1918 the cultivation was extended more widely.

Cinchona. Java ranks first among the countries producing cinchona or Peruvian bark, largely because of the cheap and abundant labour available. The cultivation is carried on both by the Government and by private enterprise. In 1914 there were in Java 19,548 *bouws* planted with cinchona trees, and in that year 893 metric tons of cinchona were produced from the seven Government plantations, 739 tons from private estates, and 6,796 tons from plantations on waste lands held by hereditary lease from the Government. At the end of 1915, of the 113 cinchona plantations in the Dutch East Indies, 110 were in Java. The Bandung Quinine Factory manufactures quinine on a large scale.

Before the war, most of the cinchona bark exported

from Java went to Holland, and was sold at Amsterdam by public auction. Prices, however, were steadily falling, owing to the action of some of the large German chemical firms. In 1913, therefore, after a conference between the Java producers and eight of the principal quinine factories, a trust was created. The factories undertook to buy the entire annual production of Java bark up to a quantity from which 525 tons of sulphate of quinine could be produced, at a minimum price of 5 cents per unit. The Central Office of the Kina Bureau at Amsterdam controls receipts and the analysis of the bark, and fixes the price. Between 1913 and 1916 the percentage of quinine in the bark averaged about 6, and the price rose from 4·91 cents to 11·4 cents per unit. The agreement was renewed, with some modifications, in 1918.

Cocoa. The cultivation of cocoa in Java was at one time spreading rapidly, and between 1897 and 1907 the output almost doubled. The plant, however, is very liable to pests and diseases, and planters were discouraged. In 1912 the area under cultivation was about 10,000 *bouws*, and the production amounted to 2,272 metric tons. In 1914 the output dropped to 1,186 tons, though in 1915 it rose again to 2,092 tons.

Coffee grows well in Java at altitudes up to 4,000 ft. *Arabica* and other kinds have now been almost entirely superseded by *Robusta*, which was introduced from Africa in 1901. The Van den Bosch system of compulsory cultivation (see above, p. 27) was applied to coffee longer than to any other product, and was not relinquished in Java till 1915. The production, however, had long been declining, and increasing competition from Brazil and elsewhere made coffee-growing less profitable. In 1879 the production of Government coffee in Java amounted to 1,267,167 *piculs*,[1] whereas in 1912 it

[1] 1 *picul* = 133·3 lb.

totalled only 81,000 *piculs*. In 1915 Government estates yielded about 4,000 tons and private estates about 29,000 tons. In 1914 there were 382 private coffee plantations in Java, comprising 80,166 *bouws* on which coffee was planted alone, and 83,626 *bouws* on which it was planted with rubber and other crops. Under normal conditions almost the whole crop is exported.

Cotton is grown in one or two districts only, notably in the Residency of Semarang. It has little commercial value, as the fibre is rough and short, but the natives use it for weaving cloth for their own use.

Indigo grows in the *sawahs* or wet rice-fields, and at one time its cultivation was very profitable. In 1898 the yield was 1,094 tons, valued at £330,000. The manufacture of synthetic indigo, however, has ruined the industry. Indigo growing has been steadily diminishing, and in 1913 Java exported only 46 tons. There was a temporary revival during the war, when German supplies of synthetic indigo were cut off.

Kapok is obtained from the kapok-tree, which is indigenous, and grows freely by the roadsides. It is also planted to some extent, and in 1914 was grown on 92 estates, comprising 6,319 *bouws*. The natives, however, grow four times as many trees as the planters. The fibrous down is exported, and also the seeds, which contain a valuable oil. In 1913 Java exported 120,710 bales of kapok and 19,479 tons of seeds.

Oil-producing Plants. The *coco-nut palm* is indigenous to the Dutch East Indies, and will grow in Java up to a height of 3,000 ft., though it is at its best in low, sandy districts near the coast. The natives have long been accustomed to plant coco-nut groves round their kampongs, and recently scientific cultivation has been undertaken. It was estimated at the beginning of 1918 that there were 63,533,000 coco-nut palms

in Java, of which 37,234,000 were bearing. Copra is in increasing demand in the world's markets on account of the oil it contains, which is used for making soap, candles, and margarine. The coco-nut fibre is used locally for making mats, brushes, &c., and is also exported. Factories for preparing the oil were set up in Java during the war. In 1917 production of copra amounted to 323,913 tons, of which about 60,000 tons were exported, while 40,000 tons were worked in the local factories. The rest was treated by the natives, whose primitive methods secure only about 50 per cent. of the oil, whereas in the factories about 70 per cent. can be extracted. The residue of the crushed copra makes valuable cattle food. The copra industry is becoming increasingly profitable. Whereas in 1900 all the products of the coco-nut palm exported from the Dutch East Indies amounted in value to only £420,000, in 1914 the copra alone was worth £5,000,000.

Java and Madura contain many other kinds of oil-producing plants. Early in 1918 the managing director of the Oliefabriek Insulinde, of Bandung, estimated the annual production as 100,000 tons of ground-nuts, 5,500 tons of castor-oil seed (*djarak*), 68,730 tons of soya beans (*kedelee*), 2,500 tons of sesame seeds, and 21,800 tons of kapok seeds; it is thought that this estimate is very modest.

Opium is now a State monopoly, and its private cultivation and sale are forbidden (see below, p. 79). The Government erected an opium factory at Batavia in 1901.

Rubber. Java has an ideal climate for rubber cultivation. *Ficus elastica* is indigenous, but the trees are so large that not many can be grown per acre. *Hevea brasiliensis* (Para rubber) was introduced as long ago as 1887, but it was not till 1904 that cultivation on a commercial scale was begun, and not till

1913 that the Government abandoned the preferential treatment of *Ficus*. *Hevea* requires a great deal of rain, and is planted mainly in West Java, where there is a heavy rainfall. In 1914 there were 408 rubber estates in Java, 142,128 *bouws* being planted with rubber alone, and 87,073 *bouws* with rubber together with other crops. There are both Government and private plantations. The production rose from 6,782 tons in 1914 to 13,938 tons in 1916. The export of wild rubber from the Dutch East Indies was increasing during the same period, but separate figures for Java are not available.

Spices, &c. In 1913 Java exported 55 tons of *mace* and 169 tons of *nutmegs*. *Cinnamon* used to be widely grown, but is now of small importance. The *pepper* trade, once considerable, has dwindled in importance, but in 1912 about 238 tons of pepper were prepared in Java. The export of pepper from Java in 1913 amounted to 14,720 tons, the bulk of the produce coming, however, from Sumatra.

Sugar. Sugar-cane is grown chiefly on the *sawahs*, and great care has to be taken over drainage and irrigation. Compulsory cultivation ceased in 1891, since which date the area under sugar-cane has quadrupled, while the yield of sugar is ten times as great. In 1914 the area planted was 207,800 *bouws*, and 1,453,380 tons of sugar were produced. In 1916–17 Java contributed about 1,600,000 tons to the world's output of 16,680,000 tons of sugar. The process of sugar manufacture in use in the Java factories is the most modern in existence, the yield being about 4 tons per acre, but the machinery needed is very costly. The natives make a coarse brown sugar from the sap of the nipa and sugar palms.

Tea used to be a Government monopoly. It is mainly planted in the Preanger Residency. China tea used

to be grown exclusively, but is now being replaced by Assam tea and hybrids. Tea grown in Java has not the strength of Indian nor the flavour of the finest China, but it is pure and wholesome and has a good reputation. In 1902 an experimental station was opened at Buitenzorg to give information to planters, and a Tea Export Bureau has been started at Batavia to give advice to merchants. In 1913 a Tea Seed Control Office was opened at Tanjong Priok, as much of the seed imported from Assam had arrived in bad condition. The tea crop in 1917 was about 45,000 metric tons.

Tobacco for European use is grown chiefly in Middle and East Java, and thrives up to an altitude of 6,000 ft. Planting is largely carried on by natives, who can buy good planting material by the help of the popular credit banks. The European estates buy up their produce. Experimental stations have been opened at Klaten and Jember to advise tobacco planters. Generally speaking, this tobacco fetches lower prices than that grown in Sumatra, but the preparation is less expensive, and the quality is remarkably uniform. In Kedu, Pasuruan, Pekalongan, Rembang, and Preanger the natives grow a coarse tobacco called *krossok*, which requires no special care and can be grown in rotation with rice. Its leaves are too small for the European trade, but the natives smoke it rolled in a piece of maize leaf, and also chew it. Krossok is largely exported to Singapore, and from there it is re-exported to Borneo and other parts of the Dutch East Indies. In 1895 the tobacco exported from Java to Europe amounted to 9,807 tons, while in 1907 the export had risen to 37,892 tons.

Other products of minor importance are *rattans*, fibres such as *manila hemp* and *sisal hemp*, the nuts of the *areca* palm, which the natives chew with betel

leaves, and tanning material obtained from two kinds of acacia.

(ii) *Live-stock and Animal Products.*—*Buffaloes* are the commonest domestic animals, and are kept, especially in the west, for ploughing and for draught purposes. Their flesh is eaten fresh or salted.

Cattle are bred, especially in Middle and East Java, while the natives of Madura are expert cattle-breeders. Up to 1905 the stock was not increasing proportionately to the growing needs of the country and the extension of cultivated land. Since that date, however, the slaughter of cattle has been placed under restrictions, and the breed has been improved by the introduction of zebu cattle from India. The natives consume little milk or beef, the animals being used almost entirely for draught purposes.

Goats and *sheep* are bred for their meat, and *pigs* mainly for sale to the Chinese.

Horses are not methodically bred, but there is a local breed which, though small and ugly, is strong and enduring.

Silk. The growth of the mulberry-tree in Java is slow on account of the damp. There are three silk-worm breeding establishments in Java, but only one, at Pangkalan, has yielded profits. The Government is now encouraging the industry, and it is hoped that better breeds and improved methods may be introduced.

(*b*) *Methods of Cultivation*

The Javanese, generally speaking, take no interest in crops requiring continual care. The only exception is with regard to rice, the cultivation of which, according to ancient Hindu law, is a religious duty. The attitude of the natives, however, is very conservative, and they continue to till their rice-fields by traditional

and wasteful methods and with the help of primitive implements.

Rice is grown either in *sawahs* (wet fields) or *tegals* (dry fields). The former are level plots surrounded by dikes, which allow water to be admitted or excluded as required. On sloping land the fields are terraced so that the water may trickle from one to another, and by this means rice can be grown up to an altitude of 3,500 ft. The rice is sown in the *sawahs* at the beginning of the rainy season, either by the whole ear, according to tradition, or more economically in grain. The soil is then flooded by day and drained by night, and after a month or six weeks the shoots are transplanted. Thenceforward the soil is alternately flooded and drained every few days until the harvest, which usually takes place in April or May. Each ear is gathered by hand, with a small curved knife. The rice is then stacked, dried, and pounded to separate the grain from the straw. The grain is husked in primitive mills worked by buffalo traction or water-power. Formerly it was usual to get a second or even a third crop from the soil, which thus became quickly exhausted; but the Government now encourages the natives to sow potatoes or artichokes after the rice harvest, or, in West Java, to convert the *sawahs* into fish-ponds till the next rice-sowing.

The *tegals* depend entirely on the rainfall. The earth is loosened with the *patjol*, a primitive hoe, the surface smoothed and cleared, and the rice placed in holes about 8 inches apart.

Irrigation.—Irrigation has been under Government control since 1895, and is now directed by a special division of the Public Works Department. At the end of 1914 there were twenty important irrigation works in use in Java and Madura, and fls. 6,177,802 were spent that year on the construction of irrigation and

drainage works. About 21 per cent. of the total area of irrigated land in Java was supplied with water by permanent works, 7 per cent. had permanent works in course of construction, 17 per cent. had been surveyed for works, and the remaining 55 per cent. depended solely upon rain. The rivers of Java, especially those flowing northward, have been extensively utilized for irrigation purposes. Water is supplied through canals to areas requiring it, the distribution being left to the natives. The supply is used first for the rice-fields, which are planted during the west monsoon, and afterwards for the sugar-fields, which require water during the east monsoon only. Secondary crops, when water is scarce, can be watered only during certain hours of the day and at night.

(c) *Forestry*

The forest zone in Java extends to a height of 2,000 ft., and is said by one authority to cover as much as 72 per cent. of the surface of the island. In East Java there is monsoon forest, with deciduous trees, while in the west there is tropical rain forest, with an extraordinary diversity of trees. There is a Government Department of Woods and Forests which forms reserves, issues regulations as to felling, &c., and carries on experimental cultivation and reafforestation.

There are between three and four hundred varieties of timber trees in the Java forests. The most valuable is *jati* or *teak*, which occurs mainly in Middle and East Java. The State maintains an absolute monopoly of the teak forests, though some are leased, under strict supervision, to private undertakings. Most of the trees grow wild, but they are also cultivated by planters, who set rice, tobacco, and maize between the rows of young trees. In 1914 there were in all

686,373 hectares[1] of teak forests in Java, of which 194,494 hectares were artificially cultivated. The wood is used extensively throughout the Dutch East Indies for shipbuilding, railway sleepers, building, and furniture, and the export is diminishing as local needs develop.

All other trees are classified as wild timber. The most valuable are *ebony*, *sandalwood*, and *balian* or *ironwood*. Most of the other trees grow too rapidly to form timber of good quality, but in view of the rising price of teak the natives have been obliged to fall back upon wild timber for many purposes. Wild timber is exploited chiefly in Preanger, though forestry there was in the past hampered by restrictions on transport. The natives put *bamboos* to a multitude of uses, while from the mangrove forests on the coasts they obtain firewood and bark for tanning.

(*d*) *Land Tenure*

The greater part of the soil of Java is Government property. A few private estates are owned by Europeans or Chinese.

Among the natives collective land-holding is customary. A native possesses as individual property the plot on which his house is built, and receives from the chief of his village every three, four, or five years a field to furnish sustenance for himself and his family. This system is a bad one, for the individual takes little interest in a field which is to pass to other hands after a short time, and chiefs are apt to give the best land to relatives. The Dutch Government does its utmost to prevent the native being despoiled of his land by Chinese or European speculators.

Adat, or native law, which is based on the religions,

[1] 1 hectare = 2·47 acres.

customs, and institutions of the natives, remains generally in force, Dutch civil and mercantile law being applied only where the *adat* is defective.

(3) Fisheries

Deep-sea, coast, and river fishing are carried on, and there are salt-water ponds for breeding purposes all along the north coast of Java, especially in the eastern part of the island. The Residency of Surabaya contains 47,000 *bouws* of these ponds, out of a total of about 78,000 *bouws* in the whole of Java. Credit facilities have been afforded to foster deep-sea fishing, and 'fish banks' are established in places which appear to need them. The Government, which has a monopoly in salt, supplies it at a reduced price for preserving fish.

Fish are abundant, and most of the species are edible. The natives consume large quantities fresh, but a certain amount of dried fish is generally available for export, though in 1914 it was necessary to import 43,725 tons of dried and salted fish into the Dutch East Indies.

Trepang, or *bêche-de-mer*, is fished on the coasts, for export to China. Turtle and tortoise shells are also collected.

(4) Minerals

Java and Madura are very poor in minerals as compared with Sumatra and Borneo.

Coal was discovered in 1829 in the Bajah fields near Wijnkoops Bay, but it is of inferior quality and has never been seriously worked.

Copper is found chiefly in Madiun, and occurs in the Preanger highlands, but has never been mined scientifically. It is not believed to exist in large quantities anywhere.

A few traces of *gold* have been found in Java, but there is no gold-mining.

Iodine is obtained from many hot springs, especially

in the Residency of Surabaya, and the export of iodide of copper in 1913 amounted to about 58 tons.

About 4½ tons of *manganese* ores were produced in Jokyakarta in 1907. Several concessions have been granted to work manganese and other ores in the sands of the south coast, but the production so far has been of no importance. In 1918, however, the wealth of these deposits was reported to have been verified by Government officials.

Marble is worked at Wajak in Kediri, and Belgian and Dutch experts have declared that this marble is hard, firm, and equal to the best qualities of Italian, Belgian, and French. It is used chiefly for tiles.

Mercury has been found in minute particles in the clay soil of the *sawahs* along the rivers of the lowlands of Demak in Semarang.

Petroleum. The centres of petroleum production in Java are the provinces of Surabaya and Rembang, in the north-east. Before the war the annual production from these areas was about 35,000 and 73,000 tons respectively. The production in Madura is growing in importance. Shafts are generally sunk on the Canadian principle, but the washing method of boring is sometimes employed. The deepest well in Java has a depth of about 1,000 metres (3,280 ft.). Generally speaking, Java oils have a low specific gravity and high contents of benzene and lamp oil. Kerosene is the chief product, while among the by-products are benzene, liquid fuel, lubricating oil, asphalt, paraffin wax, and turpene. Liquid fuel is used in the sugar refineries, and is stored at Tanjong Priok and Surabaya for supplying ships. Batching oil, for the batching or softening process in the jute industry, is exported to British India. Asphalt and paraffin wax are sold in Java, the latter for use in the *batik* industry (see below, p. 68). Turpene serves as a substitute for turpentine.

Nominally the supreme authority in the purchase, manufacture, transport, and distribution of petroleum in the Dutch East Indies belongs to the Koninklijke Petroleum Maatschappij, founded in 1890, which is closely connected with the Shell Transport and Trading Company, London. The crude petroleum is obtained and the product manufactured by the Bataafsche Petroleum Maatschappij, founded in 1907 (see *Sumatra*, No. 83 of this series). This company has refineries in Java at Tjepu (Rembang), Wonokromo, (Surabaya) and Semarang, and the area of its concessions in the island is 245,000 acres. The shipping of the petroleum is controlled by the Anglo-Saxon Petroleum Company. Distribution outside the Dutch East Indies is managed by the Asiatic Petroleum Company and within them by the Dordtsche Petroleum Maatschappij.

Salt is a Government monopoly (see below, p. 78). There are saline springs in all parts of Java, and those at Tjiampel in Krawang yield a brine containing nearly 3 per cent. of salt. The natives evaporate the salt in cauldrons or tanks, and have to pay a royalty in proportion to the amount produced. In Madura the Government manufactures salt from sea-water by European methods, and has two factories for making the salt into blocks.

Sulphur. In 1913 the amount of sulphur produced was 1,236 tons, and in the two preceding years 875 and 305 tons respectively.

Small quantities of *wolframite* are found.

Mining Laws.—The State claims the ownership of the entire subsoil in the Dutch East Indies, and for private exploitation it is necessary to obtain a licence to prospect and then a working concession. Except in the case of petroleum, a prospecting permit is granted to Dutchmen or foreigners domiciled in the Dutch East Indies for a certain length of time. It is granted in the first place for

three years only, but may be extended for a maximum of two years further. A concession is only granted if the mineral sought for lies within the limits of the area for which the prospecting permit has been issued, and if its exploitation is technically practicable. Work must be begun in the first year. The concession may be renewed indefinitely for terms of seventy-five years.

The State imposes a fixed tax of 50 cents per hectare, or rather more than 4*d.* per acre, on the area of a concession, and a royalty of 4 per cent. on the gross yield of a mine. The prospector's permit is subject to an annual tax of 5 cents per hectare, or less than ½*d.* per acre. Products of prospecting may be disposed of without restriction up to a certain maximum assignment for each mineral, after which the royalty of 4 per cent. on the gross yield is payable.

Licences to prospect for petroleum and concessions for working are granted only to Dutch subjects domiciled in Holland or the Dutch East Indies, or to companies incorporated under Dutch law in the same places. A prospecting licence is issued for three successive years, on payment of an annual tax of fl. 1 per 100 acres. The maximum area covered by a single licence is 25,000 acres, but several licences may be applied for simultaneously. Concessions are granted when prospectors can prove that petroleum has been struck in sufficient quantity to be of commercial value. Each concession is confined to an area not exceeding 10,000 acres, the whole of which must be covered by the same prospecting licence. Concessions are usually granted for 75 years.

(5) Manufactures

The principal native industry is the *batik* industry, which consists in making coloured patterns upon white cambric imported from Europe. The fabric is plunged

into a series of baths of dye, different portions of the design at each immersion being protected from the dye by a thin coating of wax. The finished product is sold locally, and also in British India and the Malay Peninsula. Cambric for this purpose used to be imported to a yearly value of about fls. 30,000,000, but the industry is diminishing as printed calicoes imported from Europe become more popular.

The natives make hats of bamboo rind in their own homes for European employers who undertake the export. They also make pottery and baskets, work in copper, and forge and ornament *kreeses* or Malay daggers, but none of these minor industries is of much commercial importance.

The Java factories include not only those dealing with agricultural produce, such as rice, vegetable oils, sugar, and vegetables for preserving, but also others making machinery, cement, tiles, ice, mineral waters, spirits, &c. The shortage due to the war has caused an extension of the activities of Java manufacturers; large machinery and chemical products essential to the sugar industry have for the first time been made within the island. Numbers of motor-boats, wherries, and native sailing-vessels have been built, and there are proposals for undertaking the construction of large iron ships. Leather tanning is increasing in importance, as leather produced locally can be sold more cheaply than that imported.

(6) Power

Hydro-electric installations have not yet been introduced, except experimentally, but the electrification of the railway between Batavia and Bandung is in progress, and it is expected that in the near future there will be a rapid development of hydro-electric installation in the Preanger highlands.

(C) COMMERCE

(1) Domestic

(a) *Principal Branches of Trade*

Trade in bulk is conducted by European firms in Batavia, Surabaya, and Semarang, which are distributing centres for the whole of the Dutch East Indies. Retail trade is in the hands of the Chinese and Arabs. The Chinese are industrious and able organizers, and their activities as middlemen are important in the economic life of Java. They have their chief houses at Batavia, Surabaya, and Semarang, but send agents all over the country, inducing the natives to buy imported goods, and advancing money on native crops, which are then delivered to them and sold to the European merchants in the ports.

(b) *Towns, Markets, &c.*[1]

Besides the principal distributing centres at Batavia, Cheribon, Semarang, and Surabaya, there are many other markets, while every *kampong* has an *aloun-aloun*, or small open stretch of turf which is used as a market-place. Batavia is the chief market for tea, and tin from Banka is also sold there by public auction.

(c) *Organizations to promote Trade and Commerce*

At Batavia, Surabaya, and Semarang, there are chambers of commerce, each consisting of seven members, appointed to advise the Government on all matters in which commercial information is required. In 1910 a Department of Commerce and Industry was established as a subdivision of the Department of Agriculture. It publishes statistics, market reports, and a periodical journal.

[1] For the ports, see pp. 45–48.

Chinese trade associations were formed at Batavia and Surabaya in 1901, with the approval of the Government, and are said to be doing useful work in settling trade disputes.

(*d*) *Foreign Interests*

Though the commercial houses at the ports are mainly Dutch, there are also German, Italian, and British firms, the last-named handling much of the trade in cotton goods. Before the war the Germans formed the largest European community other than Dutch, and had enormously strengthened their position in the Dutch East Indian market.

The Japanese have the status of Europeans, but remain a race apart. Their activities had been noticeable for several years before the war, and during the war period their efforts redoubled. A large Japanese party visited the Dutch East Indies in 1916 to study commercial conditions. The Japanese shops in Batavia and Surabaya are stocked with Japanese imitations of all kinds of European goods, including toys, leather goods, rolled-gold ware, textiles, millinery, and ironware. The Japanese were reported in 1917 to be giving more attention than formerly to the better qualities in all lines.

A syndicate of business men from Tokio has recently formed the Pacific Sugar Manufacturing Co. with a capital of 6,000,000 yen (over £600,000), divided into 120,000 shares, of which 100,000 were to be taken up by the promoters, the rest being offered to the public. The Dutch Government is supporting this new company, which has been formed to purchase sugar undertakings in Java hitherto conducted by Dutchmen.

The Bank of Taiwan opened a branch at Surabaya in 1915, and in 1918 another at Batavia. In 1917

a syndicate with this bank at their head bought the Sukerejo sugar plantation for fls. 2,000,000, which was said to be more than twice its value. They were then inquiring about other estates. In 1918 the Mitsui Yusen Kaisha was seeking to acquire manganese deposits in Java.

The Chinese are very active in trade, and the value of Chinese property in Java has been estimated at more than £16,000,000.

(2) Foreign

Trade statistics in the Dutch East Indies are voluminous but confused. The Government treats Java and Madura as one unit, and the rest of the Colony, under the name of the Outer Possessions, as another. Much produce from the Outer Possessions, however, is trans-shipped at Java ports and therefore affects the Java figures.

(*a*) *Exports*

Quantities and Values.—The export trade of Java and Madura was steadily growing before the war. Its value rose from fls. 157,145,000 in 1900 to fls. 259,010,000 in 1910 and fls. 335,682,000 in 1914. The figures during the war were larger still, but that was due in part to enhanced prices.

The principal exports from Java and Madura in 1913 were as follows (figures for values are only available in a few cases) :

In Value.	*Florins.*
Cassava products	9,099,000
Hides	9,226,000
Kapok	6,594,000
Other fibres	5,459,000
Pepper	10,397,000
Rattans	7,267,000
Rice	9,035,000

In Quantity.	*Tons.*
Cinchona bark	9,313
Cocoa	2,069
Coffee	28,353
Copra	77,800
Ground-nuts	17,100
Gum damar	4,051
Indigo	41
Mace	49
Maize	49,000
Nutmegs	151
Oil-seeds	21,070
Petroleum	207,135
Rubber	2,517
Sugar	1,252,428
Tea	28,885
Tin	17,350
Tobacco	133,736
	Oz.
Sulphate of quinine	1,947,450

Countries of Destination.—Normally more than 33 per cent. of Java sugar goes to British India. In 1913 about 76 per cent. of the sugar exported went to ports of the British Empire, 23 per cent. to China and Japan, and 1 per cent. to Holland. In 1914 huge British purchases were made to supply the deficiency of German beet sugar, but the demand was only temporary, and large quantities of sugar were left on the hands of growers and dealers when shipping facilities diminished and England found nearer sources of supply. Java tea before the war went mainly to Holland and England, though there was an increasing demand from Russia; in 1917 the export went mainly to the United States, Russia, and Australia. Coffee went chiefly to Holland, but also in considerable quantities to France and the United States. England and Holland used to take most of the rubber, but during the war the United States became a large purchaser, taking 3,342 metric tons in 1915, 9,002 metric tons in 1916, and in 1917 no less

than 14,956 metric tons out of a total of 18,959 tons exported. Tin from Banka and Billiton, trans-shipped at Batavia, went mainly to Holland, but also to France, Austria, and England. Of oil-seeds and nuts, most of the ground-nuts, areca-nuts, and sesame seeds in the period from 1915 to 1917 went to Singapore. Kapok seeds in 1917 went chiefly to Holland, though previously Great Britain had taken a large proportion. Copra in 1915 went almost exclusively to Holland, which also took the bulk of the coco-nut oil. Tobacco went mainly to Holland.

With regard to exports in general, it should be noted that many of the goods exported to Holland were intended for German consumption. One consequence of the war has been a great increase in trade between Java and the United States. The exports to the United States amounted in value in 1914 to fls. 10,000,000, in 1915 to fls. 26,000,000, and in 1916 to fls. 68,000,000. This is due largely to increased shipping facilities (see above, p. 49).

(*b*) *Imports*

Quantities and Values.—Before the war, the import trade of Java had been steadily increasing. Its value between 1895 and 1913 more than trebled. A Java correspondent of *In- en Uitvoer* in 1918 supplied the following figures, based on Government statistics, for the imports between 1913 and 1916:

	Florins.
1913	300,000,000
1914	262,000,000
1915	259,000,000
1916	287,000,000

The principal imports to Java and Madura in 1915 [1] were as follows (figures for values are only available in a few cases):

[1] Figures for 1913 are not available.

In Value.		*Florins.*
Cotton manufactures		56,161,000
Paper		847,000
Silk manufactures		1,808,000
Soap		1,377,000
Woollen manufactures		638,000
In Quantity.		
Ammonium sulphate	tons	106,751
Beer	litre tons	3,459
Butter	tons	1,667
Cement	barrels	503,055
Colours	tons	2,992
Copper	,,	301,683
Fish (preserved)	,,	1,996
Iron bars and roofing	,,	46,316
Milk (condensed and sterilized)	litre tons	5,378
Resin	tons	6,761
Rice (Rangoon, Siam, and Saigon)	,,	331,326
Wire nails	casks	181,462

Countries of Origin.—Many of the imports which came *via* Holland were of German origin. The textiles came chiefly from England and Holland; rice from British India, Indo-China, and Siam. Thirty years ago the supply of machinery, which is needed in large quantities for the numerous factories, was almost entirely in British hands, but British manufacturers have failed to keep pace with the growing demand, and in 1914 there were 35 German firms supplying machinery for the sugar industry in the Dutch East Indies. There is still a possibility of recapturing this market. American manufacturers are now becoming alive to the possibilities of trade in the Dutch East Indies. Imports from the United States have steadily increased during the war. In 1914 their value was fls. 6,000,000, in 1915 fls. 11,000,000, and in 1916 fls. 25,000,000. This development is of great importance. The principal articles supplied by the United States are automobiles and parts, kerosene, iron

and steel goods, machines and tools, and tin sheets. The Japanese have done their utmost during the war to improve their position in the Java market. Imports from Japan amounted in value to about £57,000 in 1902, £200,000 in 1905, £560,000 in 1913, and £1,778,000 in 1916. The goods supplied are chiefly matches, cheap cotton cloth, glass and glassware, automobile tyres, clothing, and haberdashery. It is said that Japanese porcelain has entirely replaced German in the Java market, and is sold at prices higher than those formerly obtained for German goods. Trade between Australia and Java was fluctuating before the war, but on the whole the outlook was promising.

(c) *Customs and Tariffs*

There are no preferential tariffs in the Dutch East Indies, imports from Holland being treated in the same way as those from other countries. Government imports, iron and steel goods, machinery, and many other articles are admitted free of duty. Cotton goods, wood-work, and firearms pay an ad valorem duty of 6 per cent., most dyes pay 8 per cent., and automobiles and paper 10 per cent.

Export duties are imposed upon a few articles. Tobacco not prepared for the inland market is charged fl. 1 per 100 kg.; tin, fls. 3·50 per 100 kg.; hides, 2 per cent. ad valorem; birds' nests, 6 per cent. ad valorem; petroleum, benzene, and gasolene, 3 cents per hectolitre.

(D) FINANCE

(1) *Public Finance*

The Budget for the Dutch East Indies is framed provisionally by the Governor-General, submitted to the Home Government, and finally passed by the States-General. In 1905 the mother country took over

the floating debt of the Dutch East Indies, and raised a loan of fls. 40,000,000 to cover it. In 1915 the financial independence of the East Indies was established by law, and they raised their first loan, amounting to fls. 62,500,000.

Revenue.—The revenue of the Dutch East Indies was steadily rising in the years preceding the war. The total receipts in 1907 amounted to fls. 185,000,000, in 1910 to fls. 221,000,000, and in 1913 to fls. 311,000,000. The main sources of revenue are taxation, the sale of Government produce, the profits of Government monopolies, and the receipts from public services, &c. The following analysis of the revenue in 1913 shows the amount derived from each of these sources:

Head of Revenue.	*Thousands of Florins.*
Direct taxes:	
Income tax	10,998
Land-tax	21,375
Personal property tax	1,528
Poll-tax	5,588
Trade tax	7,362
Verponding or ground tax	3,168
Other taxes	972
Indirect taxes:	
Butchers' meat tax	2,329
Customs duties	27,932
Excise	11,797
Farmed taxes	2,562
Special taxes in the Outer Possessions	3,365
Stamps, &c.	3,769
Other taxes	142
Proceeds of sale of Government produce	57,833
Receipts from Government monopolies	61,760
Public Services, &c.:	
Concessions of land and buildings	2,047
Harbour dues	1,738
Posts, telegraphs, and telephones	6,857
Railways and tramways	33,376
Miscellaneous	44,899

The principal taxes are described below (pp. 80–82). The greater part of the revenue from Government produce is derived from the sale of tin, which amounted in 1913 to fls. 41,205,000. The most important of the Government monopolies, which provide so substantial a portion of the total revenue, are those in salt and opium.

The *monopoly in salt* applies to the whole of the archipelago except Celebes, the Moluccas, the Lesser Sundas, and New Guinea, and includes control of production, sale, and importation when necessary. The manufacture of salt by natives is forbidden in Borneo and in the greater part of Sumatra. The Government obtains its supplies by the evaporation of sea-water from large pans, chiefly in Madura, and in 1914 had under its control 4,439 such pans, with a total yearly output of 114,126 *koyangs*.[1] The salt is placed in Government warehouses and retailed by natives or Europeans. The local supply is now sufficient for local requirements, but as late as in 1914 the Government had to import as much as 20,000 tons, chiefly from Egypt, Aden, and Sicily. In Java and Madura private importation, except of fine table salt, is forbidden, but in Sumatra and Borneo there are certain ports at which salt may be imported privately, on payment of duty.

The price of the Government salt varies greatly, the normal rate in Java being fls. 6·72 per *picul*, while at Long Iram in Borneo it is as high as fls. 8·96 per *picul*. Salt to be used for fish-curing, and unfit for other purposes, is supplied at fls. 2 per *picul*. Most of the salt is sold in granular form, but there are two factories in Madura where it is made into blocks. The sale is mainly in Java and Madura.

The *monopoly in opium* was established in Java and

[1] 1 *koyang* = 1,850 kgs.

Madura in 1894, and by 1913 had been extended to the whole of the archipelago except the Residency of Ternate, where the import of opium is totally prohibited. The Government has opened a few depots at Ternate town and Labuha (Batjan). Elaborate regulations are in force as to the consumption of the drug, and its packing and sale are carried out officially in order that no person concerned may have an interest in extending the traffic.

In theory the consumption of opium is entirely forbidden in Java and Madura, Lombok, and other parts of the Dutch East Indies. In most parts, however, the possession of opium is permitted to holders of special licences, though in many districts such licences may not be issued to natives or other specified classes of persons. In a few towns such as Macassar and Padang, in most of Atjeh, Tapanuli, and Sumatra East Coast, and in the islands of Nias, Bali, and Sumbawa, consumption is entirely free and unrestricted. The price of opium has been raised in most of the provinces of the Dutch East Indies, with a view to diminishing its popularity. There has been a strong movement in Holland in favour of abolishing the opium traffic altogether, but it is urged that those already accustomed to the drug would merely seek alcohol or other substitutes if deprived of it. When on one occasion the Government forbade the importation of opium into Banka, 25,000 Chinese coolies employed in the tin mines struck work until the embargo was removed.

In 1914 the gross receipts from the monopoly were fls. 34,987,000, and the working expenses, together with police supervision on land and sea to prevent smuggling, amounted to fls. 8,987,000, so that the profits amounted to fls. 26,000,000.

Expenditure.—The ordinary expenditure had been increasing during the years preceding the war, as

additional public enterprises were undertaken, and direct government introduced in many districts previously under native rule. The ordinary expenditure in 1907 amounted to fls. 168,000,000, in 1910 to fls. 213,000,000, and in 1913 to fls. 287,000,000, the total expenditure in these years being fls. 173,000,000, fls. 231,000,000, and fls. 327,000,000 respectively. The following table shows the distribution of the expenditure in 1913:

	Thousands of Florins.
General Administration	1,377
Justice	8,980
Finance	64,187
Internal Administration	34,553
Education, &c.	19,655
Agriculture, Industry, and Commerce	11,154
Public Works	36,959
Government Industries	86,498
War	40,252
Marine	18,201
Local and Provincial Administration	5,257

Taxation.—The most important direct taxes in the Dutch East Indies are the income tax, personal property tax, poll-tax, land-tax, trade tax, and verponding or ground tax. Of these the land-tax is the most profitable. The largest contribution to the revenue derived from direct taxation is made by Java and Madura.

The *income tax* has been steadily growing in importance, and in 1917 was estimated to produce fls. 18,200,000. It is imposed upon Europeans and those enjoying European rights, upon all private and public companies and trading associations, and upon all individuals trading or practising a profession.

The *personal property tax*, amounting to 5 per cent. on the rental value of a house and 2 per cent. on the value of the furniture, is imposed upon Europeans or

persons enjoying European rights, and foreign Orientals. Horses, bicycles, carriages, and motor-cars are also taxed.

The *poll-tax*, a payment in lieu of personal service, has become more and more productive as statute labour has been gradually abolished in most parts of the Dutch East Indies. In 1917 it was estimated to produce fls. 9,320,000.

The *land-tax* is a term used to include not only the tax upon actual land in Java and Madura, but also such charges as the tithes levied on rice in South and East Borneo, Celebes, Bali, and Lombok, the tax on fish-ponds in Java, and taxes on the collection of birds' nests and guano in Celebes and Sumatra. Agricultural land in Java is assessed according to its value, the rate of tax varying from 25 cents to fls. 20 per *bouw*. Irrigated rice-fields or *sawahs* pay a tax ranging from 8 per cent. to 20 per cent. of the taxable produce, after a certain quantity of rice has been set aside.

The *trade tax* is imposed on natives only, and applies to all who do not pay land-tax. It now affects almost all earned incomes, except the salaries of persons in Government service or engaged in the teaching of religion. In the Outer Possessions, foreign Orientals are liable to this tax if they are under the direct rule of the Government.

The *verponding* or *ground tax* is imposed on real property, and amounts to 1 per cent. of the rental value, if the land is held by virtue of grants or assignments from the British Administration of 1811–16, or to $\frac{3}{4}$ per cent. of the rental value, if the ownership of the land was granted by the Dutch, either by Royal Decree in 1872 or otherwise. Various classes of land are exempt, including Crown property and land belonging to ecclesiastical, scientific, or charitable institutions.

Besides the general taxes applicable to the whole of the Dutch East Indies, there are various special taxes in certain territories. For example, in Celebes natives to whom the Government has lent fields free of charge pay the *tesang*, one-third of the crops produced. On January 1, 1914, a separate trade tax on incomes derived from a trade, handicraft, or industry was introduced in all territories except Java and Madura, to include persons not paying the ordinary trade tax, and to supplant the poll-tax and similar burdens.

Among indirect taxes, the excise duties are noteworthy. They are levied on matches, tobacco, petroleum, and colonial-made alcoholic liquors only. There is a duty peculiar to Borneo upon certain kinds of imported tobacco.

Farmed taxes now form only a small part of the revenue, as the Government aims at getting all taxation under its direct control. Both in Java and parts of the Outer Possessions, however, certain sources of revenue, such as tolls on bridges and ferries, and concessions to keep pawnshops or gambling dens, or to collect birds' nests, are still farmed out. The butchers' meat tax, on the slaughter of cattle, horses, and pigs, is levied in Java and in some of the Outer Possessions, and in certain districts of the latter is farmed out.

(2) *Currency*

The currency of the Dutch East Indies is that of Holland. There are special coinage and note issues for the Colony. No other coinage is permitted. The Javasche Bank issues notes for 5, 10, 25, 50, 200, 300, 500, and 1,000 florins.

(3) *Banking*

The chief bank in the Dutch East Indies is the *Javasche Bank*, which was established in 1828, is con-

trolled by the Dutch Government, and has a capital of fls. 6,000,000. It had notes to the value of fls. 118,000,000 in circulation in March 1915. It is compelled by law to keep a metal reserve amounting to at least 40 per cent. of the value of the notes in circulation, plus unpaid short drafts and credit balances on current accounts. Three-fourths of this reserve must be deposited in the Colony, while one-half must be in the legal tender of the Dutch East Indies. The head office of the bank is at Batavia, and its branch offices in Java are at Semarang, Surabaya, Cheribon, Jokyakarta, Surakarta, and Bandung.

Of other banks in Java, ordinary banking business only is conducted by certain firms, such as the Nederlandsch-Indische Escompto Maatschappij, and the agencies of the Chartered Bank of India, Australia, and China, and the Hong Kong and Shanghai Banking Corporation. Others, such as the Nederlandsche Handelmaatschappij and the Nederlandsch-Indische Handelsbank, act also as agricultural credit banks. Others again are produce banks only.

The *Nederlandsche Handelmaatschappij* was founded in 1824. In 1913 the share capital, after several vicissitudes, was increased to fls. 75,000,000, of which fls. 55,000,000 had been taken up by 1916. The dividend declared for 1914 was 8 per cent. During the period of compulsory cultivation, 1830–59, the company was entrusted with the shipment and sale of Government produce, making financial advances to the Dutch East Indian Government and selling produce on consignment. In 1874 it took up banking business, and now carries on all kinds of financial transactions on a large scale. The head office is at Batavia, and there are 11 branch offices in Java. This company is known throughout the Dutch East Indies as 'The Factory'. In 1914 it was financially interested in

37 sugar factories, of which 16 were entirely under its control. Its turnover on deposit and current accounts in the East in that year was fls. 1,668,000,000.

The *Nederlandsch-Indische Escompto Maatschappij* started business in 1858 with a fully paid-up capital of fls. 500,000. Its foreign bill transactions became important after 1901, when an independent agency was established in Amsterdam, and by the end of 1914 it had 9 agencies in the Dutch East Indies. The dividend paid in 1917 was 8¼ per cent. It carries on a commission business in the widest sense, and acts as cashier for other firms. It gives preference to transactions which do not bind down capital for any length of time. In January 1915 the reserve fund amounted to fls. 2,025,417.

The *Nederlandsch-Indische Handelsbank* was established in 1863 with a capital of fls. 1,500,000, and was originally an agricultural credit bank. The sugar crisis of 1884 nearly ruined it, and it saved itself only by reconstruction under a new name as the Nederlandsch-Indische Landbouw Maatschappij, of which practically all the shares are held by the bank. The bank itself has since flourished.

The *Unie Bank voor Nederland en Kolonien* was founded in 1914 with a nominal capital of fls. 5,000,000, of which fls. 1,000,000 had been issued and fully paid up by 1915. This company does miscellaneous business, administering private fortunes and taking part in syndicates and combines.

The *Nederlandsch-Indische Hypotheek Bank* was founded at Batavia in 1891, with a share capital of fls. 500,000, and the *Nederlandsch-Indische Effecten en Prolongatie Bank* in 1912, with a nominal capital of fls. 5,000,000, of which fls. 1,000,000 had been issued and fully paid up at the end of 1914. Both these banks were established to advance money on mort-

gages of real property situated in the Dutch East Indies.

The *Bank of Taiwan, Ltd.*, a Japanese concern, opened a branch at Surabaya in 1915, and another at Batavia on January 1, 1918. The *Mercantile Bank of India* and the *Banque de l'Indo-Chine* have established agencies in Java. The *American International Banking Corporation* opened a branch at Batavia in 1918.

Banks for Natives.—In order to encourage native industries and native agricultural enterprises, the Government has founded various credit institutions throughout the Colony. In 1914 the expense of their upkeep and supervision, including the subsidizing of the smaller banks wherever necessary, was fls. 1,296,174. At the head of this organization is now the *Centrale Kas* or Central Credit Bank, which was founded at Batavia in 1913 to supervise the minor credit banks. The Centrale Kas is incorporated, and is entrusted by the Government with special funds set aside to promote the people's welfare. It is managed by a civil servant, assisted by a board of supervision, whose members are nominated by the Governor-General. The staff is paid by the bank, and not by the Government.

At the end of 1914 the capital of the Centrale Kas was fls. 2,875,250, and the rate of interest to be paid for moneys lent by the Treasury was fixed for that year at 3·22 per cent. The Government now only makes subsidies direct to district banks for objects for which the Centrale Kas is not authorized to make advances, such as the importation of foreign cattle and the settling of Javanese colonists in the Outer Possessions. The institutions controlled by the Centrale Kas, in order of importance, are Provincial, Divisional, or District Banks, Village Credit Banks, and Village Rice Banks.

The *Provincial, Divisional,* or *District Banks* are not run as profit-making concerns. The Government

subsidizes them whenever necessary. In Java they are usually limited in their operations to their political divisions or districts, but in the Outer Possessions their scope sometimes covers whole provinces. Many of them have branch offices. The directors, who may be either European or native, give their services gratis, and it is intended that eventually the boards shall be composed of depositors and borrowers. These banks finance productive undertakings, trading, fisheries, the redemption of land or crops from mortgages, and the erection of dwelling-houses. They lend money at 12 to 18 per cent. They pay 4 to 6 per cent. on deposits repayable at 3 to 12 months, and 3 to 4 per cent. on savings withdrawable at any time. All these Divisional Banks are trying to obtain substantial reserves as soon as possible, as they have no other capital.

The *Village Credit Banks* lend small sums to the natives at 24–30 per cent. per annum. This rate is not so exorbitant as it seems, because loans seldom exceed fls. 10. Some of these banks require the borrower to deposit a certain sum, apart from his loan and interest, which is only repayable with notice. The Village Credit Banks derive their funds from deposits by Rice Banks and village corporations, and can borrow from the Divisional Banks if necessary; they generally have current accounts with the Divisional Banks.

The *Village Rice Banks* are owned and managed entirely by single communities or groups of villages. Their object is to ensure supplies of seed to the natives, and to serve as a precaution against famine. They lend rice, to be refunded from the next harvest with 50 per cent. interest. The Government supplies rice to the banks, if necessary, free of interest, but generally requires a bank to pay off its debt with interest, and when the debt is paid off the bank is able to charge

less than 50 per cent. to borrowers. Practically all the banks had been able to reduce their rate of interest before the war. The loans to the natives are always made and repaid in rice. A certain percentage of rice is sold each year to pay the expenses of administration and to form a monetary reserve. The fact that the native can always borrow rice from the bank protects him against the rapacity of dealers who, when making him an advance on his next harvest, would take advantage of his need to pay only low prices for his crop. The Rice Banks, however, are gradually giving place to Financial Credit Banks, as transport facilities increase and risks of famine diminish. If one district is short of rice, supplies can now as a rule readily be obtained from other areas. Also, with the development of fishing and other industries, the dependence of many areas upon the rice crop is itself diminishing.

In some parts of Java, where sea-fishing is the main source of livelihood of the natives, banks have been established in conjunction with co-operative fish-markets.

There is a *Post Office Savings Bank*, and in 1915 the depositors numbered 130,909, with fls. 10,711,595 to their credit. There are some private savings banks.

(4) *Influence of Foreign Capital; Principal Fields of Investment*

Before 1837, when the Government began to allow the free labour of the natives, exacting State monopolies obstructed all private enterprises in the Dutch East Indies. Capitalists in Holland had little external competition to meet until much later. Even now, as has been shown, concessions are granted to Dutch corporations only, though they may be transferred to

foreigners. In 1884 the sugar crisis caused immense losses, but gradually the confidence of European financiers in the prospects of the Colony increased.

A large number of companies have been founded since 1907 to work estates in Java, Sumatra, and Borneo. Their collective capital exceeds £20,000,000, not more than one-fourth of which is Dutch.

The Javasche Bank in 1911 estimated the total capital invested in Java by foreign nationalities as about fls. 170,000,000 nominal, of which about fls. 150,000,000 was paid up. Of this total fls. 120,400,000 was British, fls. 20,700,000 French and Belgian, fls. 7,000,000 Chinese, and only fls. 1,200,000 German.

British capital in Java is chiefly invested in tea, cinchona, rubber, and sugar. One important British concern is the Anglo-Dutch Plantations of Java (London), with a capital of £1,500,000, of which £1,163,126 has been paid up. Through the Pamanukan en Tjiassemlanden Maatschappij, a Dutch company registered in the Dutch East Indies, this British firm controls the Pamanukan Estate of 500,000 acres, on which are cultivated tea, coffee, rubber, rice, cinchona, and timber. The Dutch company holds the titles, while the British company holds all the shares of the Dutch company, and in 1916 paid a dividend of 8 per cent. The total British investments in the Dutch East Indies were estimated at the end of 1917 to be about £20,000,000.

During the twentieth century much capital will probably be invested in areas in the Dutch East Indies which are as yet uncultivated and even unexplored. The Government has still by far the largest trading interest in the Colony. In 1916 the Government realized about fls. 14,000,000 from sales of produce in Europe, while receipts in the Colony amounted

to fls. 34,042,300 from the opium monopoly, fls. 14,553,000 from the salt monopoly, fls. 7,059,000 from the sale of coal, and fls. 806,350 from the sale of coffee, besides large profits from railways and forests.

(E) GENERAL REMARKS

If British manufacturers are to take full advantage of opportunities for trade with Java after the war, certain changes both in the facilities provided for them and in their own methods are essential. It is imperative, for instance, that there should be a direct service of steamers between British ports and Java. Greater credit facilities should be given to British merchants wishing to establish themselves in the East, and British chambers of commerce should be founded in Java and elsewhere. A proposal has been made that a British commercial intelligence officer should be appointed for the Dutch East Indies, to reside in Java, visiting the Outer Possessions at frequent intervals, and devoting himself entirely to the collection and distribution of commercial information.

APPENDIX

TREATY BETWEEN GREAT BRITAIN AND THE NETHERLANDS RESPECTING TERRITORY AND COMMERCE IN THE EAST INDIES. London, March 17, 1824. (See L. Hertslet, *A Complete Collection of Treaties*, &c., vol. iii, pp. 285–303.)

Art. I. The High Contracting Parties engage to admit the subjects of each other to trade with their respective possessions in the Eastern Archipelago, and on the continent of India, and in Ceylon, upon the footing of the most favoured nation; their respective subjects conforming themselves to the local regulations of each settlement.

II. The subjects and vessels of one nation shall not pay, upon importation or exportation, at the ports of the other in the Eastern Seas, any duty at a rate beyond the double of that at which the subjects and vessels of the nation to which the port belongs are charged.

The duties paid on exports or imports at a British port, on the continent of India, or in Ceylon, on Dutch bottoms, shall be arranged so as in no case to be charged at more than double the amount of the duties paid by British subjects, and on British bottoms.

In regard to any article upon which no duty is imposed, when imported or exported by the subjects or on the vessels of the nation to which the port belongs, the duty charged upon the subjects or vessels of the other shall in no case exceed 6 per cent.

III. The High Contracting Parties engage that no Treaty hereafter made by either with any native power in the Eastern Seas shall contain any Article tending, either expressly or by the imposition of unequal duties, to exclude the trade of the other party from the ports of such native power; and that if, in any Treaty now existing on either part, any Article to that effect has been admitted, such Article shall be abrogated upon the conclusion of the present Treaty.

It is understood that, before the conclusion of the present Treaty, communication has been made by each of the Con-

tracting Parties to the other, of all Treaties or Engagements subsisting between each of them, respectively, and any native power in the Eastern Seas ; and that the like communication shall be made of all such Treaties concluded by them respectively hereafter.

IV. Their Britannic and Netherland Majesties engage to give strict orders, as well to their Civil and Military Authorities as to their ships of war, to respect the freedom of trade, established by Articles I, II, and III ; and in no case to impede a free communication of the natives in the Eastern Archipelago with the ports of the two Governments, respectively, or of the subjects of the two Governments with the ports belonging to native powers.

V. Their Britannic and Netherland Majesties, in like manner, engage to concur effectually in repressing piracy in those seas ; they will not grant either asylum or protection to vessels engaged in piracy, and they will in no case permit the ships or merchandise captured by such vessels to be introduced, deposited, or sold, in any of their possessions.

VI. It is agreed that orders shall be given by the two Governments to their officers and agents in the East, not to form any new settlement on any of the islands in the Eastern seas without previous authority from their respective Governments in Europe.

VII. The Molucca islands, and especially Amboyna, Banda, Ternate, and their immediate dependencies, are excepted from the operation of Articles I, II, III, and IV, until the Netherland Government shall think fit to abandon the monopoly of spices ; but, if the said Government shall, at any time previous to such abandonment of the monopoly, allow the subject of any power other than a native Asiatic power to carry on any commercial intercourse with the said islands, the subjects of His Britannic Majesty shall be admitted to such intercourse upon a footing precisely similar.

VIII. His Netherland Majesty cedes to His Britannic Majesty all His establishments on the continent of India, and renounces all privileges and exemptions enjoyed or claimed in virtue of those establishments.

IX. The factory of Fort Marlborough and all the English possessions on the island of Sumatra are hereby ceded to His Netherland Majesty ; and His Britannic Majesty further

engages that no British settlement shall be formed on that island, nor any Treaty concluded by British authority with any native Prince, Chief, or State therein.

X. The town and fort of Malacca and its dependencies are hereby ceded to His Britannic Majesty ; and His Netherland Majesty engages for himself and his subjects never to form any establishment on any part of the Peninsula of Malacca, or to conclude any Treaty with any native Prince, Chief, or State therein.

XI. His Britannic Majesty withdraws the objections which have been made to the occupation of the island of Billiton and its dependencies by the agents of the Netherland Government.

XII. His Netherland Majesty withdraws the objections which have been made to the occupation of the island of Singapore by the subjects of His Britannic Majesty.

His Britannic Majesty, however, engages that no British establishment shall be made on the Carimon isles, or on the islands of Battam, Bintang, Lingin, or on any of the other islands south of the straits of Singapore, nor any Treaty concluded by British authority with the chiefs of those islands.

XIII. All the colonies, possessions, and establishments which are ceded by the preceding Articles shall be delivered up to the officers of the respective Sovereigns on the 1st of March, 1825. The fortifications shall remain in the state in which they shall be at the period of the notification of this Treaty in India ; but no claim shall be made on either side for ordnance or stores of any description, either left or removed by the ceding Power, nor for any arrears of revenue, or any charge of administration whatever.

XIV. All the inhabitants of the territories hereby ceded shall enjoy for a period of 6 years from the date of the ratification of the present Treaty, the liberty of disposing, as they please, of their property, and of transporting themselves without let or hindrance to any country to which they may wish to remove.

XV. The High Contracting Parties agree that none of the territories or establishments mentioned in Articles VIII, IX, X, XI, and XII shall be at any time transferred to any other Power. In case of any of the said possessions being abandoned by one of the present Contracting Parties, the right of occupation thereof shall immediately pass to the other.

XVI. It is agreed that all accounts and reclamations arising out of the restoration of Java and other possessions to the officers of His Netherland Majesty in the East Indies, as well those which were the subject of a Convention made at Java on the 24th of June, 1817, between the Commissioners of the two nations, as all others, shall be finally and completely closed and satisfied on the payment of the sum £100,000, to be made in London, on the part of the Netherlands before the expiration of the year 1825.

. . . . . .

The British Plenipotentiaries understand the term Moluccas as applicable to that cluster of islands which has Celebes to the westward, New Guinea to the eastward, and Timor to the southward; but that these three islands are not comprehended in the exception; nor would it have included Ceram, if the situation of that island, in reference to the two principal spice isles, Amboyna and Banda, had not required a prohibition of intercourse with it so long as the monopoly of spices shall be maintained.

The territorial exchanges which have been thought expedient for avoiding a collision of interests render it incumbent upon the Plenipotentiaries of His Britannic Majesty to make and to require some explanations with respect to the dependents and Allies of England in the island from which she is about to withdraw.

A Treaty concluded in the year 1819 by British Agents with the King of Acheen is incompatible with the 3rd Article of the present Treaty. The British Plenipotentiaries therefore undertake that the Treaty with Acheen shall, as soon as possible, be modified into a simple arrangement for the hospitable reception of British vessels and subjects in the port of Acheen. But, as some of the provisions of that Treaty (which has been communicated to the Netherland Plenipotentiaries) will be conducive to the general interests of Europeans established in the Eastern Seas, they trust that the Netherland Government will take measures for securing the benefit of those provisions. And they express their confidence that no measures hostile to the King of Acheen will be adopted by the new possessor of Fort Marlborough.

It is no less the duty of the British Plenipotentiaries to recommend to the friendly and paternal protection of the

Netherland Government the interests of the natives and settlers subject to the ancient factory of England at Bencoolen.

This appeal is the more necessary because, so lately as the year 1818, Treaties were made with the native chiefs, by which their situation was much improved. The system of forced cultivation and delivery of pepper was abolished; encouragement was given to the cultivation of rice; the relations between the cultivating classes and the chiefs of the districts were adjusted; the property in the soil was recognized in those chiefs; and all interference in the detailed management of the interior was withdrawn, by removing the European residents from the out-stations and substituting in their room native officers. All these measures were calculated greatly to promote the interests of the native inhabitants.

In recommending these interests to the care of the Netherland Government, the undersigned request the Plenipotentiaries of His Netherland Majesty to assure their Government that a corresponding attention will be paid, on the part of the British Authorities, to the inhabitants of Malacca and the other Netherland settlements which are transferred to Great Britain.

AUTHORITIES

Historical

Berg, N. P. van den. *The Financial and Economical Condition of Netherlands India since 1870.* The Hague, 1895.

Berg, L. W. C. van den. *Le Hadramout et les colonies arabes dans l'archipel indien.* Batavia, 1886.

Campbell, D. M. *Java : past and present.* 2 vols. London, 1915.

Daendels, H. W. *Staat der Nederlandsche Oostindische Bezittingen . . . in de Jaaren 1808–11.* 2 vols. The Hague, 1814.

Day, Clive. *Policy and Administration of the Dutch in Java.* New York, 1904.

Deventer, M. L. van. *Geschiedenis der Nederlanders op Java.* 2 vols. Haarlem, 1886–7.

Deventer, C. Th. van. *Overzicht van den economischen toestand der inlandsche bevolking van Java en Madoera.* The Hague, 1904.

Encyclopaedie van Nederlandsch-Indië. [1st ed., edited by P. A. van der Lith.] 4 vols. The Hague, Leiden. [1895–1905.]

—— [2nd ed., edited by J. Paulus.] The Hague, Leiden, 1917, &c.

Fokkens, F. *De nieuwe Regeling der grenzen tusschen Nederlandsch en Portugeesch Timor.* The Hague, 1914.

Greve, W. R. de. *Het Rapport van de Staatscommissie voor de verdediging van Nederlandsch-Indië.* The Hague, 1913.

Hansen, P. C. C. *Studiën en Beschouwingen. Bestuur van Oost-Indië.* 2 vols. Amsterdam, 1903.

—— *Zijn wij in staat Oost-Indië te verdedigen ?* Amsterdam, 1904.

Heide, J. H. van der. *Economische Studiën en Critieken met betrekking tot Java.* The Hague and Batavia, 1901.

Huet, C. Busken. *Multatuli.* (In *Onze Hedendaagsche Letter-Kundigen.*) Amsterdam, 1885.

Jonge, J. K. J. de. *De opkomst van het Nederlandsch gezag in Oost-Indië,* 1595–1610. 13 vols. The Hague and Amsterdam, 1862–1909.

JUNGHUHN, W. FRANS. *Java, deszelfs gedaante, bekleeding en inwendige structuur.* 4 vols. Amsterdam, 1850–3.

KOL, H. H. van. *Uit onze Koloniën.* Leiden, 1903.

MONEY, J. W. B. *Java, or how to manage a Colony.* 2 vols. London, 1861.

MULTATULI, *pseud.* [i. e. E. D. DEKKER]. *Max Havelaar.* 2 vols. Amsterdam, 1860.

—— *Max Havelaar.* Translated by Baron A. Nahuijs. Edinburgh, 1868.

—— *Nogeens Vrye-Arbeid in Nederlandsch-Indië.* Purmerende, 1882.

PIERSON, N. G. *Koloniale Politiek.* Amsterdam, 1877.

PLAS, J. *La Colonisation hollandaise aux Indes orientales.* Brussels, 1898.

PRINCE, P. M. L. DE B. *Officieële Bescheiden betreffende den dienst van Multatuli als Oost-Indisch ambtenaar.* Jokyakarta, 1900.

RAFFLES, T. S. *The History of Java.* 2 vols. London, 1817.

SCHUILING, R. *Nederland tusschen de Tropen.* Zwolle, 1889.

SNOUCK HURGRONJE, C. *Nederland en de Islâm.* Leiden, 1915.

STOK, P. J. C. VAN DER. *Gouvernements-Exploitatie in Nederlandsch-Indië.* The Hague, 1913.

VALENTIJN, F. *Oud en Nieuw Oost-Indien.* 3 vols. The Hague, 1856–8.

VETH, P. J. *Java.* 4 vols. Haarlem, 1895–1907.

WALLACE, A. R. *The Malay Archipelago.* Vol. i. London, 1869.

WINCKEL, C. P. K. *Essai sur les principes régissant l'administration de la justice aux Indes orientales hollandaises.* Amsterdam and Semarang, 1880–1.

De eerste Schipvart der Nederlanders naar Oost-Indië onder Cornelis de Houtman, 1595–7. (Vol. vii of the publications of the Linschoten Vereeniging.) The Hague, 1915.

East and West Indian Mirror. An account of Joris van Speilbergen's Voyage round the World, 1614–17, and of the Australian Navigations of Jacob le Maire, 1615–17. (Publications of the Hakluyt Society, ser. ii, vol. 18.) London, 1906.

Eene waarschuwende stem tot allen die Indië voor Nederland wenschen te behouden. Verslag van het beheer, etc. Rotterdam, 1859.

Jaarboek van Nederlandsch-Indië. Batavia, 1916.

Jaarcijfers voor het Koninkrijk der Nederlanden (Koloniën), 1912, 1913. The Hague, 1914, 1915.

Regeerings Almanak voor Nederlandsch-Indië. 2 vols. Batavia, 1916.

Verslag der Commissie tot uitzetting op het terrein van de tusschen het Nederlandsche gebied en Britisch Noord-Borneo vastgestelde grens. Batavia, 1913.

Verslag van het beheer en den staat der Nederlandsche Bezittingen en Koloniën in Oost- en West Indië en ter Kust van Guinea over 1849–[1916]. 61 vols. The Hague, 1857–1916.

Year Book of the Netherlands East Indies. Batavia, 1916.

Economic

British Diplomatic and Consular Reports, Annual Series. *Netherlands East Indies, Trade, &c.* No. 5083, 1912, and No. 5325, 1913.

Cotton Goods in the Dutch East Indies. (United States Department of Commerce, Special Agents' Series, No. 120.)

Encyclopaedie van Nederlandsch-Indië. [1st ed., edited by P. A. van der Lith.] 4 vols. The Hague, Leiden. [1895–1905.]

—— [2nd ed., edited by J. Paulus.] The Hague, Leiden, 1917, &c.

Handboek voor Cultuur en Handelsondernemingen in Nederlandsch-Indië. Amsterdam, 1917.

In- en Uitvoer, Handels-Economisch Weekblad voor Nederland en Kolonien. The Hague, 1876, &c.

Jaarboek van Nederlandsch-Indië. Batavia, 1916.

Jaarcijfers voor het Koninkrijk der Nederlanden (Koloniën). Batavia, The Hague, 1915.

Regeerings Almanak voor Nederlandsch-Indië. Batavia, 1916.

U.S.A. Supplement to Commerce Reports, 53A. 1915.

Verslag omtrent Handel, Nijverheid en Landbouw van Nederlandsch-Indië gedurende 1915. Batavia, 1916.

Brown, J. Macmillan. *The Dutch East.* London, 1914.

Cabaton, A. *Les Indes néerlandaises.* Paris, 1910 (Translated as *Java, Sumatra, and the other islands of the Dutch East Indies.* London, 1911).

Campbell, Donald M. *Java : past and present.* London, 1915.

Walcott, A. S. *Java and her Neighbours.* New York and London, 1914.

Wright, A. *Twentieth Century Impressions of Netherlands India.* London, 1909.

LONDON:

PUBLISHED BY H. M. STATIONERY OFFICE.

To be purchased through any Bookseller, or directly from
H. M. STATIONERY OFFICE at the following addresses :—
IMPERIAL HOUSE, KINGSWAY, LONDON, W.C. 2, and
28 ABINGDON STREET, LONDON, S.W. 1 ;
37 PETER STREET, MANCHESTER ;
1 ST. ANDREW'S CRESCENT, CARDIFF ;
23 FORTH STREET, EDINBURGH ;
or from E. PONSONBY, LTD., 116 GRAFTON STREET, DUBLIN.

1920.

Price 2/6 net.