

*HANDBOOKS PREPARED UNDER THE DIRECTION OF THE  
HISTORICAL SECTION OF THE FOREIGN OFFICE.—No. 78*

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FRENCH  
INDO-CHINA

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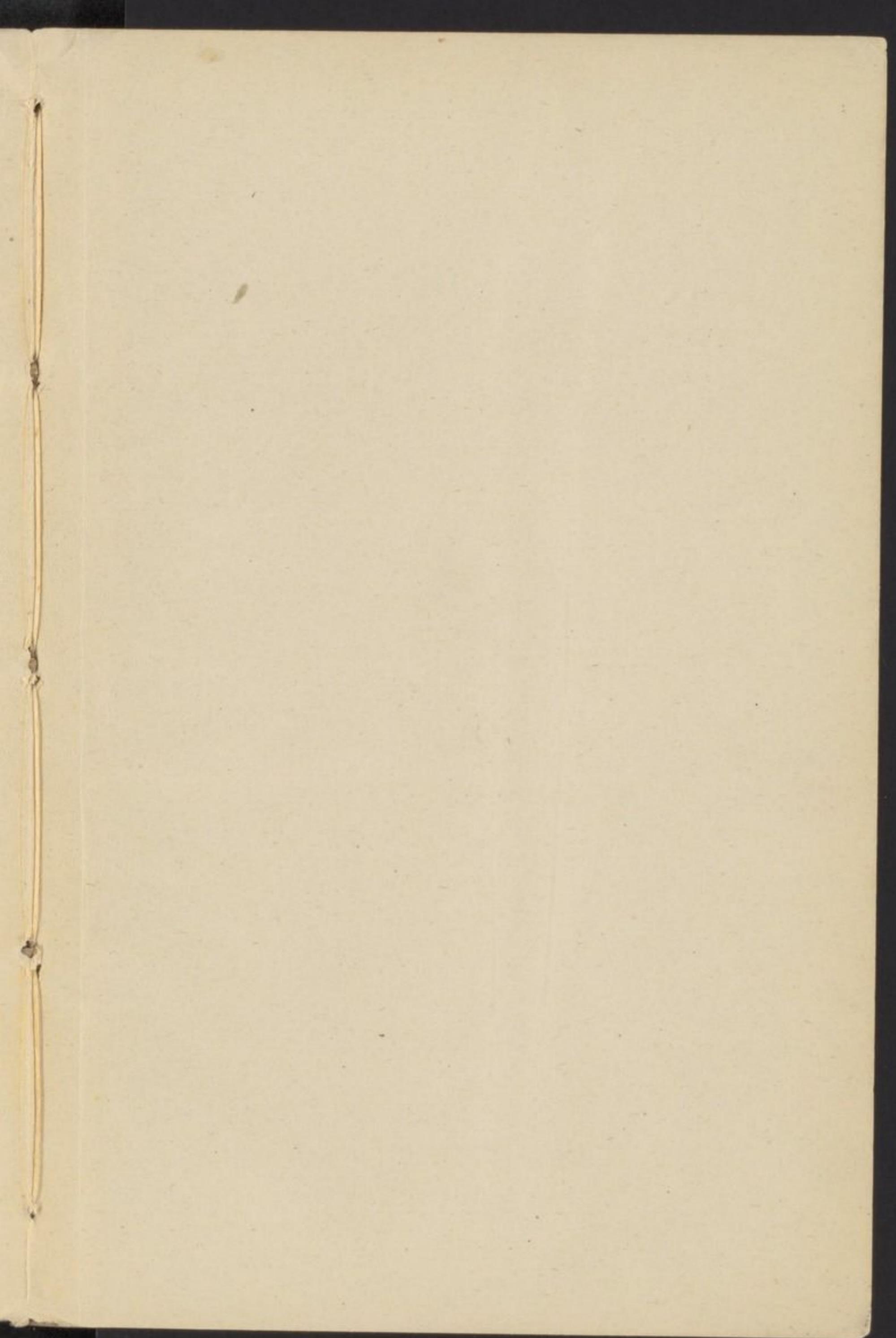
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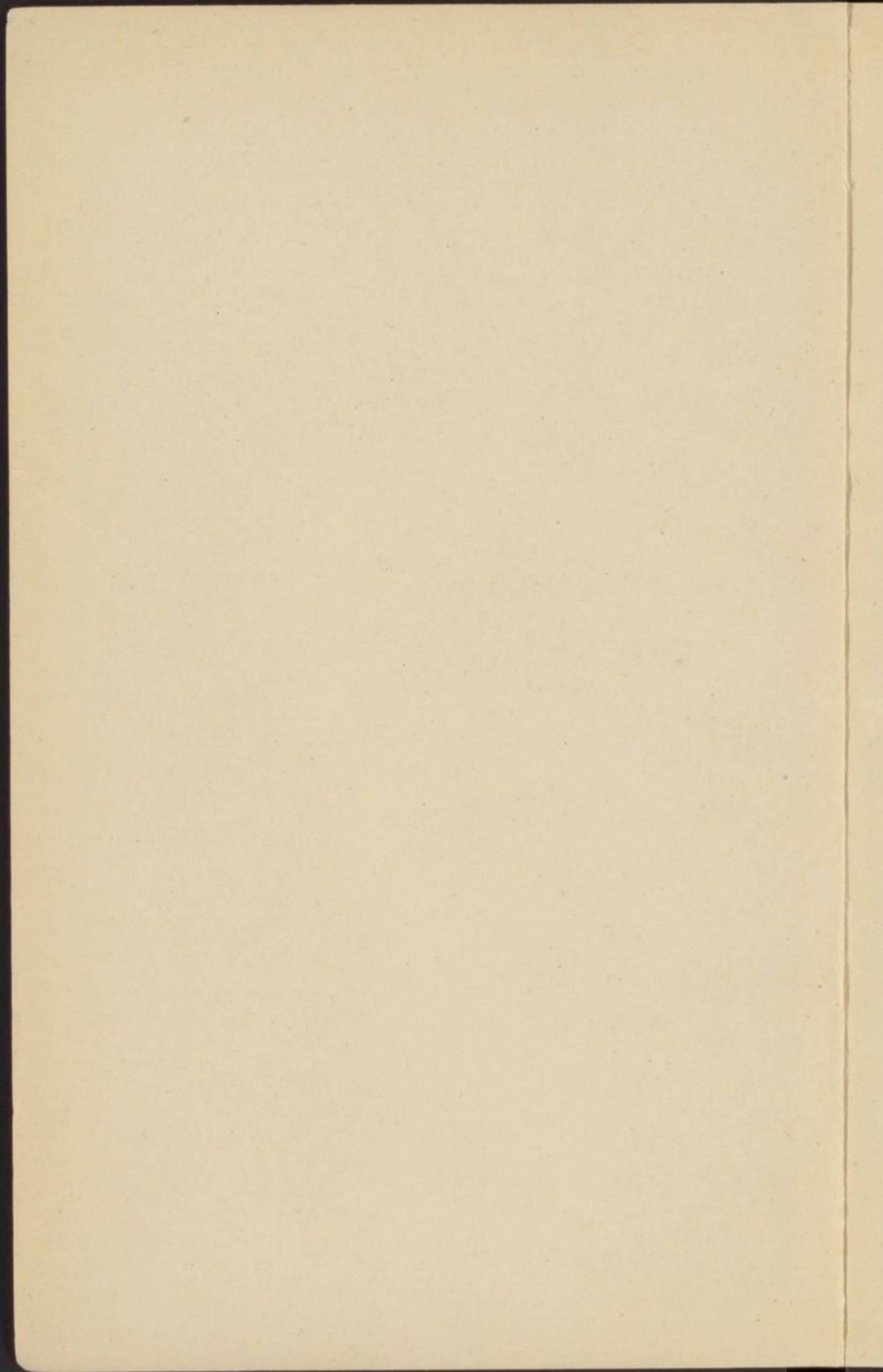


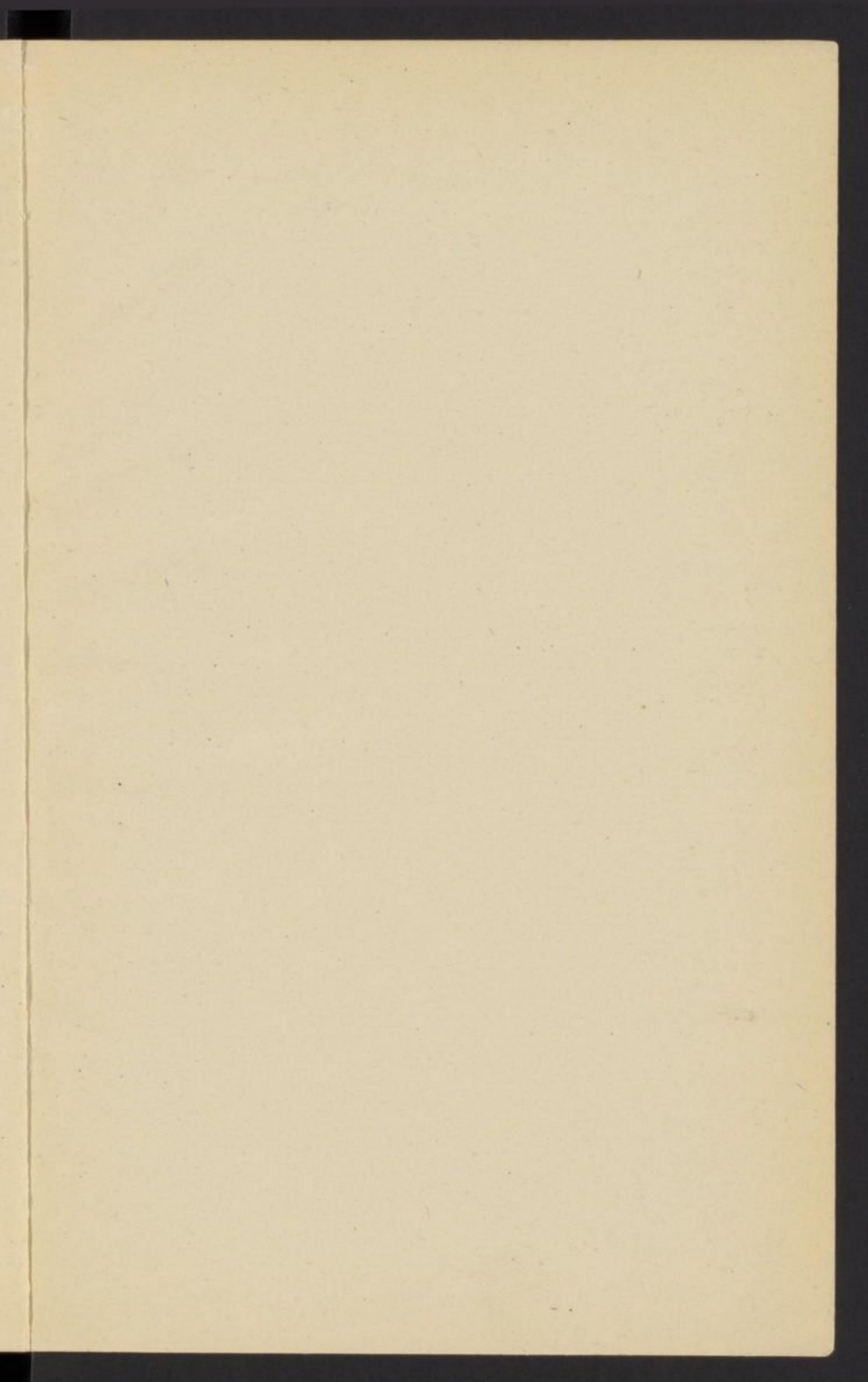


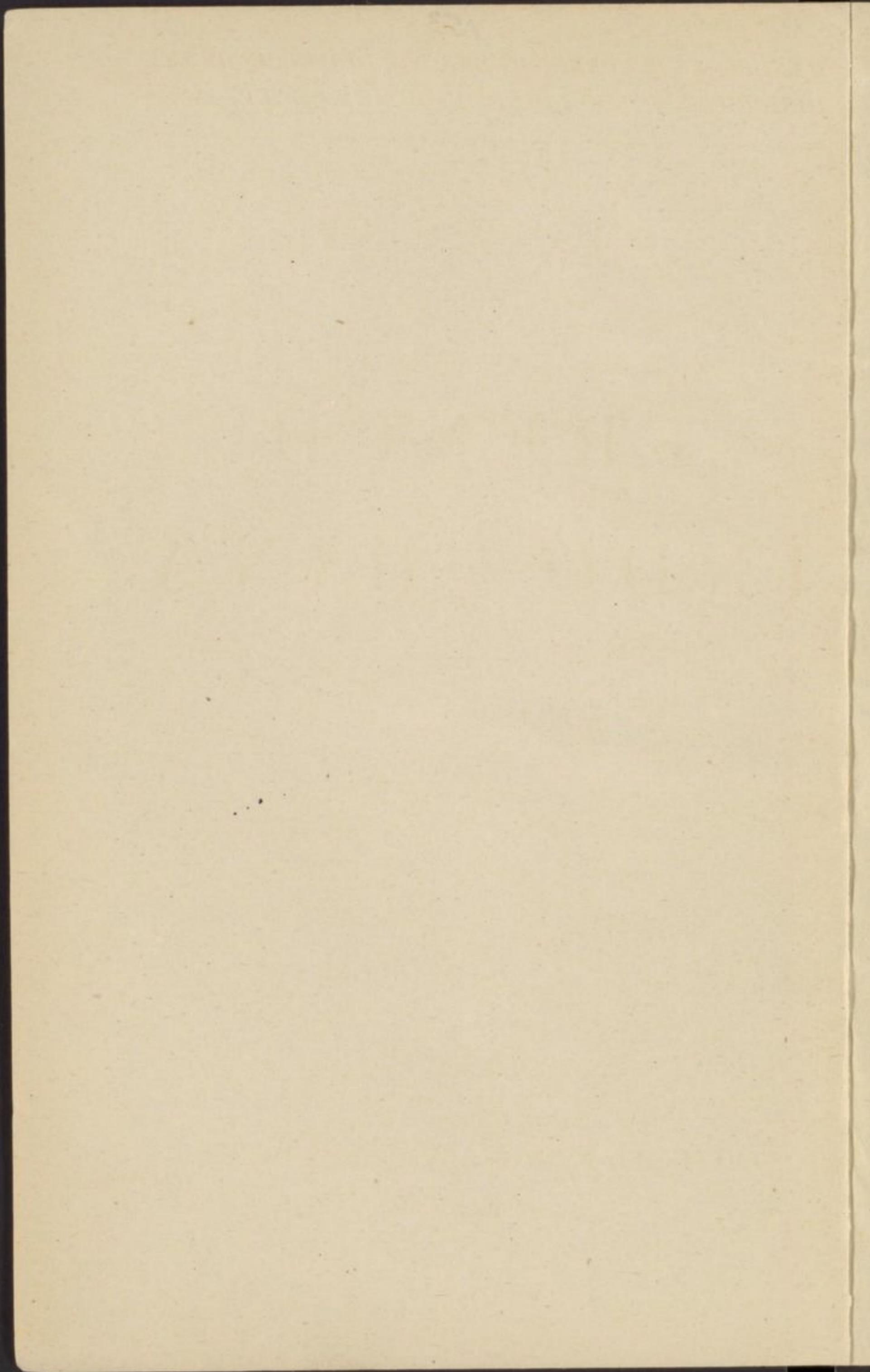
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The books are now published, with a few exceptions, substantially as they were issued for the use of the Delegates. No attempt has been made to bring them up to date, for, in the first place, such a process would have entailed a great loss of time 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.*

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THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
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RE  
RESEARCH REPORT

## I. GEOGRAPHY PHYSICAL AND POLITICAL

### (1) POSITION AND FRONTIERS

FRENCH INDO-CHINA, which is situated in the south-eastern corner of Asia, comprises the colony of Cochin-China and the protectorates of Tongking, Annam, Cambodia, and the parts of Laos which lie for the most part east of the River Mekong—practically the whole of the old Annamite empire—together with the leased Chinese territory of Kwang-chow-wan, which is situated on the east side of the Leichow peninsula in the province of Kwang-tung.

The area of the whole is estimated at 260,000 square miles, apportioned as follows :

	<i>sq. miles.</i>
Cochin-China . . . . .	20,000
Annam . . . . .	52,000
Cambodia . . . . .	45,000
Tongking . . . . .	46,000
Laos . . . . .	97,000

With the exception of Kwang-chow-wan (see below, p. 10), all this territory lies between latitudes  $8^{\circ} 36'$  and  $23^{\circ} 25'$  north and longitudes  $100^{\circ}$  and  $109^{\circ} 30'$  east. It is bounded on the north by the Chinese provinces of Kwang-tung, Kwang-si, and Yun-nan ; on the north-west by Burma ; on the west by Siam ; on the south-west by the Gulf of Siam ; and on the east by the China Sea. The northern boundary between Indo-China and China is conventional, coinciding with no decided ethnographical division, but follows in the main a mountain range, cutting across the courses of the

Song-koi (Red River) and various of its tributaries. Between Burma and French Indo-China the boundary is defined by the *thalweg* of the Mekong. From here to the sea the entire western boundary marches with Siam, following the watershed of the Mekong on the right bank to the confluence of the River Nam-huong ( $19^{\circ} 45' N.$ ), and then the right bank of the Mekong as far as Pakmoun ( $15^{\circ} 18' N.$ ). From this point the only natural barrier is the comparatively low Dang-rek (or Denrmong) range.

The boundaries between the British Shan States of Burma, Siam, and French Laos are in the main marked by the convenient natural line of the Mekong valley rather than by ethnographical distinctions, but the boundary runs considerably to the west of this river between  $20^{\circ}$  north latitude and the confluence with the Nam-huong. Indo-China and Siam are nowhere separated by any serious natural barrier; and the frontier has been the subject of frequent rearrangement.

## (2) SURFACE, COAST, AND RIVER SYSTEM

### *Surface*

The configuration of the country is determined by two rivers—the Mekong and the Song-koi or Red River—and by the mountain system, which is an offshoot of the great Chinese group of Yun-nan, and spreads in irregular formations over Tongking and Upper Laos, being continued in a long narrow chain down the whole length of Annam, closely adhering to the curve of the coast. The highest point (10,300 ft.) is reached near Lao-kai in Tongking, though several parts of the Annamese chain rise above 6,000 ft.

In Tongking the provinces of Lang-son, That-ke, and Kao-bang in the north-east belong to the basin of the

Si-kiang, or West River, which flows into the sea below Canton; the province of Mon-kay on the east forms a little basin of its own; but the greater part of Tongking consists of the basin of the Song-koi or Red River and its tributaries. Its valley and large delta form the most fertile and populous part of Tongking, the rest of which is for the most part wild and mountainous.

The Annamite chain, which forms the boundary between Annam and Laos, sends out mountainous spurs to the sea, and these divide the country into provinces. The range feeds a number of short rivers which have formed a narrow strip of fertile alluvial plain bordering the coast from the Tongking delta southwards. The river valleys and mountain passes admit of communication between the various provinces of Annam and the coast.

Upper Laos is a tangle of mountain ranges, through the west of which the Mekong winds. In the centre is the large plateau of Tran-ninh, which, if more accessible, might be an important health resort.

In Lower Laos the Annamite chain slopes more gently down to the Mekong, except in the region of the Boloven plateau north-east of Attopeu. There are rich tracts of country, but they are undeveloped. There are two large plateaux on the west of the chain in southern Annam, the Darlak and the Lang-biang, the latter of which is approached by railway and is destined to be an important sanatorium.

### *Coast*

Indo-China has approximately 1,500 miles of coast. Its outline is that of a large S, and, except in the delta lands, it is generally rocky. The northern part of the coast of Tongking is screened by numerous islands and contains the sheltered bays of Tien-yen, Along, and

Hon-gay, the latter of which contains the natural harbour of Port Courbet. South of this is the Red River delta, flat and harbourless, the ports being high up the rivers. Of these Hai-fong, about 20 miles from the mouth of one of the branches, is the most important, serving as port to Hanoi, the capital of Indo-China. Kwang-yen, Thai-binh, and Nam-dinh are smaller ports accessible only to vessels of shallow draught.

The northern part of the coast of Annam, though rich and populous, is deficient in harbours, but the more barren and rocky southern section abounds in fine bays and sheltered anchorages.

The deltaic coast of Cochin-China is deeply channelled by the branches of the Mekong delta, but is lacking in coastal harbours. The port of Saigon lies 34 miles from the sea on the Saigon, a tributary of the Donnai river. Cambodia has a short coast-line without harbours of importance, and depends on the Mekong for its communication with the sea.

#### *River System*

The two most important river systems are those of the *Red River* and the *Mekong*, the former being the main artery of Tongking. It is navigable for river steamers from its mouth to Yen-bai (about 220 miles) at all seasons, and to Lao-kai (about 300 miles) during the high-water season; it is further navigable for junks to Man-hao, in Yun-nan, about 55 miles within the boundaries of China. Its utility, however, is marred by rapids, shoals, and shifting sand-banks. From December to May it is at its lowest level, after which it rises rapidly (from 16 to 20 ft. at Hanoi), frequently washing away its banks. As a consequence the delta lands have to be protected by extensive embankments. Its chief tributaries—the Black and Clear rivers, both of which rise in China and join the main stream near

Vietry, a few miles above the delta—are only navigable for about 56 miles.

The rest of Indo-China lies within the basin of the Mekong, which rises in Tibet and flows through the gorges of Yun-nan before reaching the borders of Upper Laos. It is subject to heavy floods in the wet season, and some of its rapids are only negotiable for a short period of the year. Its extreme limit of navigation is Tang-ho in Siam (about 1,450 miles from its mouth), but, as a rule, it is only navigable for sampans and junks above Vien-tiane ( $18^{\circ}$  N.). From here to the sea it has long reaches navigable for launches, with intervals in which rapids interfere with what would otherwise be an ideal means of communication between central Indo-China and the Gulf of Siam. Its last 270 miles, from Kratie to the sea, are navigable at all seasons by steamers. At low-water period the tide is felt as far as Pnom-penh, but in the high-water period, which begins in May and reaches its maximum in October, the river rises 26 to 33 ft. at this point and to a great height farther up. At Pnom-penh the Mekong is joined by the Bras du Lac, which comes in from the Great Lake (Tonle-sap) in Cambodia. This lake receives much of the flood water of the Mekong and at flood time actually quadruples its area, covering 770 square miles. The area uncovered at low-water season is highly fertile. At Pnom-penh the delta begins, and this, which includes the Vaiko, Donnai, and Saigon, forms a labyrinth of navigable waterways, the chief of which is the channel leading to the great port of Saigon. The low-lying districts at the mouth of the Mekong are subject to extensive floods in the wet season. The Mekong has a number of small tributaries on both banks, the most important being the Se-moun, which joins it on the right bank at Pak-moun.

Cambodia to a great extent, and Cochin-China almost entirely, consist of flat alluvial lands formed by the Mekong system, intersected by waterways, extremely fertile and producing heavy crops of rice which support a large population.

### (3) CLIMATE

The climate of Indo-China varies considerably with the latitude and altitude of the different parts, but an excessively hot summer is common to the whole. In the south there are two seasons, the wet and the dry, corresponding with the monsoons, though in the low-lying country the heat is great all the year round and for the most part humid and exceedingly trying for Europeans. The north-east monsoon blows from about the middle of October to the middle of April, and during this period, the dry season, the temperature remains almost steady, between  $78.8^{\circ}$  and  $80.6^{\circ}$  F. ( $26-27^{\circ}$  C.) by day and  $68^{\circ}$  F. ( $20^{\circ}$  C.) by night. From mid-April to mid-October, the wet season, the monsoon blows from the south-west; and the temperature rises to between  $80.6^{\circ}$  and  $84.2^{\circ}$  F. ( $27-29^{\circ}$  C.), at which it remains day and night with little variation. April and May are the hottest months; with a temperature from  $86^{\circ}$  to  $93^{\circ}$  F. ( $30-34^{\circ}$  C.).

In Tongking and northern Annam the summer is very hot, with frequent storms and heavy rain. The winter from November to February is dry and pleasant; while from February to April the climate is cool and damp, with much fine rain and mist in the Red River delta. In Tongking the wind blows steadily from the south-east from May to October; and the temperature rises above  $83^{\circ}$  F. ( $28.3^{\circ}$  C.), frequently reaching  $95^{\circ}$  F. ( $35^{\circ}$  C.) and more. In Annam, June, July, and August are a dry season, the thermometer varying between  $86^{\circ}$  and  $95^{\circ}$  F. ( $30^{\circ}$  and  $35^{\circ}$  C.), with comparative coolness

at night. The north-east monsoon brings rain in September; and this is also the month of typhoons. The mountainous country in the interior has a cooler and drier climate.

#### (4) SANITARY CONDITIONS

The hot, moist climate of southern Indo-China is extremely trying for Europeans. Depression and anaemia are the direct results of the enervating conditions. Tongking is more habitable, owing to its wholesome winter season. Dysentery, malaria, cholera, and small-pox are prevalent throughout the whole region, but may be avoided by proper sanitary precautions. The forests and jungles of the interior are unhealthy.

#### (5) RACE AND LANGUAGE

The natural attractions of the river deltas and the fertile coastlands have drawn to them invading races from India, China, and Tibet, who have either absorbed the natives or driven them into the wretched and unhealthy inland districts. Of these invading races the most important are the following:

The *Cambodians*, who claim a Khmer origin and an Indian civilization, overran the country bordering on the lower Mekong and the Great Lake in the early Middle Ages, their most prosperous era being between the sixth and twelfth centuries.

The *Hindus* established two colonies at the beginning of the Christian era—one in the south-eastern corner of Indo-China (the Champa), and the other on the lower Mekong. They were both absorbed, though a few survivors still retain their national characteristics under the name of Chams.

The *Thais*, from the borders of Tibet, northern Yun-nan and Upper Burma, spread into Tongking and

Laos, where they still form a large portion of the mountain population.

The *Annamese*, a Mongol type, are said to have come from southern China about the second century B. C. They gradually overran all the fertile lands of Tongking and Annam, and spread into Cochin-China and Cambodia. They now represent about four-fifths of the total population of Indo-China. They are, as a whole, industrious and comparatively energetic, good agriculturists, clever workmen, intelligent, and quick learners. Their language is akin to Chinese; and the Chinese written character is in general use.

The *Chinese*, who followed the Annamese invaders and for a long time dominated them, are now scattered throughout Indo-China, where their superior commercial aptitude has given them command of the trade and minor industries.

A continual stream of immigrants strongly imbued with Chinese influences is constantly filtering down into Indo-China, including the Mans from Fu-kien and Hu-nan, the Meos from Upper Kwei-chow, the Lolos from Sze-chwan and Upper Yun-nan, and the Nungs from southern China. They have settled where they could find congenial conditions of climate and soil, and have for the most part mingled peaceably with the other inhabitants. The official European language is French, but intercourse has hitherto depended very much on the help of interpreters.

## (6) POPULATION

### *Distribution and Density*

No census of the population has been taken except in Cochin-China, and we are dependent upon estimates which vary considerably. The official estimate for 1914 was 16,645,638, made up as follows:

Cochin-China . . . . .	3,050,785
Annam . . . . .	5,200,000
Cambodia . . . . .	1,634,252
Tongking . . . . .	6,119,724
Laos . . . . .	640,877

The lowest estimate brings the total down to 10,000,000.

The distribution of this population is very unequal. The fertile delta lands, the borders of certain rivers, the region of the Great Lakes, and the northern half of the Annamese coast are more or less thickly populated ; the forest and mountain regions of the interior are for the most part uninhabited.

The European population, mainly French, was 23,700, including military, in 1914.

#### *Towns and Villages*

In Tongking the Red River (Song-koi) delta is a teeming district with several large towns and innumerable villages. Hanoi with its suburbs, at the head of the delta, has 150,000 inhabitants. It is the capital of Indo-China, and has a large modern town laid out by the French beside the native city. Hai-fong, the port of Hanoi, situated on one of the arms of the Red River, is a busy commercial town with 25,000 inhabitants. Nam-dinh, in the southern part of the delta, is a flourishing native town with 50,000 inhabitants.

In Annam the capital, Hué, has about 60,000 inhabitants. It lies about 9 miles from the sea, and has an indifferent harbour. Tourane (7,000 inhabitants), in a beautiful and well-sheltered bay, is a second-class port with a considerable trade. Fai-fo (Wang-nam), near Tourane, is a busy centre of Chinese trade.

In Cochin-China the delta lands at the mouth of the Mekong are densely populated, with thriving towns connected by a network of waterways. The capital, Saigon, is a beautiful modern town with about 100,000

inhabitants, and, though 40 miles from the sea, has a harbour of great commercial and naval importance. The neighbouring town of Cholon (population, 170,000) is purely commercial and mainly Chinese. Other towns of considerable population in the delta are My-tho (27,000), Sadek (15,000), and Vinh-long; Bien-hoa (20,000) at the head of navigation of the Donnai river, and Baria (30,000) in the south-eastern corner of the province.

In Cambodia the capital, Pnom-penh, at the junction of the Mekong and the Bras du Lac, has a population of about 60,000. The banks of the Mekong and the borders of the Great Lake are the most populous parts of the rest of the province.

Laos is thinly inhabited, with few towns of importance. Vien-tiane, the administrative centre, has about 10,000 inhabitants; and Luang-Prabang, in Upper Laos, has 12,000. For the rest, the province contains rich tracts of country, but is undeveloped.

#### *Movement*

In the absence of statistics it is difficult to speak of the movements of the population. The capital towns, such as Hanoi, Saigon, and Hué, especially Hanoi, have grown rapidly during the French occupation. Parts of Annam have suffered from time to time from the ravages of famine caused by disastrous storms and drought, and the consequent failure of the rice harvest; but the French have done much to remove these dangers by irrigation works and improved communications.

#### *KWANG-CHOW-WAN*

The leased territory of Kwang-chow-wan is regarded as part of French Indo-China. Its position is approximately in  $21^{\circ} 5'$  north latitude and  $110^{\circ} 40'$  east

longitude, on the eastern side of the Leichow peninsula, which projects from the province of Kwang-tung towards the island of Hainan. Its area is 190 square miles, or 325 including the bay of Kwang-chow-wan with the islands which enclose it and the mouth of the Matshe river. The land boundaries are purely conventional, being defined by agreement with the Chinese Government, who leased the territory to the French in 1898 for a period of 99 years. It lies close to the main trade route between Europe and China, and is the best harbour in this part of the Kwang-tung coast. The French occupied it as a possible naval base, but at present it is unprovided with quays, docks, or harbour facilities. The approach, which is covered by the islands of Tan-hai and Nau-chow, consists of a deep channel interrupted by a bar with only  $3\frac{3}{4}$  fathoms of water at low tide. In the bay is a secure anchorage between the 5-fathom contours. The bay is a continuation of the estuary of the Matshe river, which provides a fine inner anchorage up to three miles from the mouth. The surrounding country is poor.

The climate is very similar to that of Tongking.

There are about 189,000 Chinese inhabitants, distributed over some 800 villages and a few small towns. The latter include Chi-khom, a junk port on the Matshe river, Po-tao on the east, and Fort Bayard and the French town of Kwang-chow-wan at the mouth of the river. The foreign residents are mainly the French officials and garrison.

## II. POLITICAL HISTORY

### CHRONOLOGICAL SUMMARY

- Fifth Century.* The Khmer dynasty in Cambodia.
- Ninth Century* (end). Angkor founded.
968. Annamese dynasty set up in Annam.
- Twelfth Century.* Conquest of Cochin-China and South Annam by Cambodia.
- Fourteenth Century.* Fall of the Khmer dynasty.
1428. Restoration of Annamese dynasty after an interlude of Chinese rule.
- Fifteenth Century.* Abandonment of Angkor.
1568. South Annam becomes a separate principality as Cochin-China.
- Sixteenth Century.* Portuguese and Dutch reach Cambodia.
- Seventeenth Century.* Southern Annamese encroach on Cochin-China.
- Seventeenth and Eighteenth Centuries.* Struggle between Siamese and Annamese in Cambodia.
- Eighteenth Century* (end). Rebellion in Cochin-China.
1787. Treaty between France and Cochin-China.
1801. Gia-long establishes himself in Tongking.
1846. Annamese evacuate Cambodia.
1858. Franco-Spanish fleet at Tourane.
1862. Treaty between Cochin-China and France and Spain.
1863. French Treaty with Cambodia.
1867. Franco-Siamese Treaty.
1873. Garnier seizes Hanoi. The Black Flags.
1874. Franco-Annamese Treaties.
1880. Annam accepts position of Chinese tributary.
1882. Rivière's expedition.
1883. Death of Rivière. Capture of Son-tai.
- 1884-5. Franco-Chinese imbroglio.
1885. Treaty of Tientsin. Revolt of Annamese Government.
1891. De Lanessan Governor-General.
1893. French ultimatum to Siam. Treaty and Convention with Siam. British intervention.

1895. Franco-Chinese Convention.

1896. Joint declaration by Great Britain and France.

1904. } Franco-Siamese Treaties.  
1907. }

(1) FROM EARLY TIMES TO THE MIDDLE OF THE  
NINETEENTH CENTURY

*CAMBODIA*

THE Khmer country, Cambodia, is mentioned in Chinese records from an early date. Some centuries before the Christian era, Brahmanism and the Sanscrit language were imported there from the east coast of India, and by the fifth century A. D. the Indian influence had become marked. The Khmer nation were prominent at this period, and native dynasties ruled for many centuries. The city of Angkor was founded at the close of the ninth century, and shortly afterwards Buddhism began to rival the official religion—Brahmanism. Cochin-China and South Annam were conquered in the twelfth century, and war was waged against the peoples in the west of Cambodia; but soon afterwards the decline of the Khmer power began, and the Thai races of Siam were able to throw off the Khmer yoke about the beginning of the fourteenth century. Constant aggression by the Thais led to internal dissension and the abandonment of Angkor in the fifteenth century.

The western nations appeared on the scene in the sixteenth century, when the Portuguese obtained a footing in Cambodia. They were followed by the Dutch; but after the middle of the seventeenth century there was little European influence until the arrival of the French.

About the beginning of the seventeenth century the Nguyen rulers of South Annam began to encroach on

Cochin-China, and during that century and the eighteenth Cambodia, which was governed by two kings supported respectively by Siam and Annam, became a field for the conflicts of its two powerful neighbours. The Cambodian provinces of Battambang and Siemrap were annexed by Siam at the close of the eighteenth century, and the rivalry of the two Powers was concluded after a long war by a treaty of 1846, under which the protégé of Siam was placed on the throne, and the Annamese evacuated Cambodia.

#### *ANNAM, TONGKING, AND COCHIN-CHINA*

Up to the tenth century of our era the rulers of the countries now known as Annam and Tongking appear to have been of Chinese descent, and the peoples they governed were mainly Chams, whose civilization was Hindu, and Annamese, who are held to have come originally from South China. In 968 the Chinese domination was displaced and an Annamese dynasty was founded. Though for a short time at the beginning of the fifteenth century Chinese rule was restored, an Annamese dynasty resumed the sovereignty in 1428 and endured until the end of the eighteenth century. During the greater part of these four hundred years the titular sovereigns were puppets, and the real control remained in the hands of the Trinh family in Tongking, and of the Nguyen family in South Annam, which in 1568 became a separate principality known as Cochin-China. Here towards the close of the eighteenth century there was a rebellion which overthrew the Nguyen, and one of the members of this family, Gia-long, sent the missionary Bishop Pigneau de Béhaine to France to invoke assistance for the purpose of regaining control of the country.

*French Treaty of 1787.*—At Versailles on November 28, 1787, Bishop Pigneau, on behalf of Gia-long,

concluded a treaty with Louis XIV, in which Tourane and the islands of Pulo-Condore were ceded to France in return for specified military assistance to replace Gia-long on the throne of Cochin-China. This treaty also established an alliance between the two countries, under which Cochin-China was bound to assist France in wars against other Powers, while the help of France could be invoked by the King of Cochin-China only in the case of aggression.

(2) FROM THE MIDDLE OF THE NINETEENTH  
CENTURY

*Franco-Spanish Treaty of 1862.*—The successors of Gia-long were antagonistic to the French influence, and persecutions of the Christian missionaries and converts followed. These led in the reign of Tu-duc in 1858 to the arrival at Tourane of a Franco-Spanish fleet. After the capture of that town Saigon was stormed, and Rigault de Genouilly made it his base of operations; but his inadequate forces confined him to the defensive, and he was soon blockaded by an Annamese general. Admiral Charnier arrived at Saigon with reinforcements in February 1861, the Annamese were driven off, and My-tho was taken. A revolt against Tu-duc in Tongking and the stoppage of the rice supplies from Cochin-China obliged him to submit and to conclude a treaty (June 5, 1862) with France and Spain, by which three provinces of Cochin-China were ceded and other concessions accorded to France. Spain obtained little more than freedom for Christian propaganda and a share in the indemnity of four millions of dollars which was exacted from Annam.

*Treaty with Cambodia, 1863.*—In 1863 Doudart Lagrée was sent by Admiral La Grandière, who had been appointed Governor of Cochin-China, to the Court of King Norodom of Cambodia, to counteract the Siamese influence in that country. As a result of his efforts,

Cambodia accepted the protectorate of France in a treaty signed at Houdong on August 11, 1863. Under La Grandière the exploration of the Mekong was undertaken by Garnier, and to put an end to covert opposition and hostility encouraged by the Annamese governors, the three provinces of Cochin-China, which had been left to Annam by the treaty of 1862, were annexed by a proclamation of June 25, 1867. Soon afterwards (July 15, 1867) a treaty was concluded at Paris between France and Siam 'to regulate the political position and limits' of Cambodia, and by this Siam renounced the right to tribute, and recognized the French protectorate in return for the two provinces of Battambang and Angkor.

*French Penetration of Tongking.*—Tongking was loosely united to Annam until 1801, when Gia-long brought it definitely under his sway. After the treaty of 1862 the French turned their attention to this province, which was reported to be rich in minerals. A French trader, Jean Dupuis, attempted to make use of the Red River (Song-koi) route to Yun-nan to convey military stores to the Chinese authorities who were fighting the Taiping rebels, and Captain Senez was sent from Saigon to open it to French trade. Dupuis forced his way through in face of the opposition of the Tongkingese authorities, and on his return to Hanoi an order was issued calling upon him to leave the country. He refused to do so, and Garnier was sent to Hanoi with a detachment to arrange matters. The latter sided entirely with Dupuis, and, the Tongkingese refusing to treat with him except on the subject of Dupuis' expulsion, he attacked the citadel of Hanoi, carried it by assault, and established himself there (November 1873). Reinforcements were called for from Saigon, and in the meantime small detachments captured the five important strongholds of the delta. The Tongkingese

now invoked the assistance of Liu Yung-fu (Lu Vinh-phuoc), the leader of the Chinese rebels known as 'Black Flags', who infested the Tongking border. The Black Flags attacked at once, and in the opening fights Garnier was killed. The Saigon authorities, who had not bargained for a policy of aggression, sent M. Philastre to apologize to the King of Annam, and the French detachments were withdrawn from three of the delta strongholds.

*Franco-Annamese Treaty of 1874.*—Negotiations which had been carried on fitfully with the Court of Hué since the annexation of the three provinces by La Grandière in 1867 were now taken in hand seriously to regularize the situation, and the result was the treaty of March 15, 1874, which took the place of that of 1862. By this Annam at last recognized the annexation of 1867, and in return France abandoned the unpaid balance of indemnity due from 1862—some £220,000. Military and naval assistance was given by France to Annam to put down brigandage on the Chinese border and piracy along the coasts of Tongking, and personnel and material were promised to enable Annam to reorganize her fleet and army, re-establish order in the administration, create customs and revenue services, and direct works of public utility. Annam renounced the power to conclude political alliances with other States, but retained the right to contract treaties of commerce after giving notice to France. Fuller protection was accorded to the Christian religion, and converts were relieved from political disabilities. A treaty of commerce followed on August 31, 1874, by which certain ports and the Red River to the Chinese frontier were opened to trade.

The Comte de Rochehouart brought the political treaty, in which France recognized the sovereignty of the King of Annam and 'his entire independence

*vis-à-vis* any foreign Power whatsoever', to the notice of the Chinese Government, and received a reply mentioning that Annam had been for long a tributary of China, but raising no objection to the terms of the treaty. Later, however, on September 24, 1881, the Marquis Tsêng informed M. Barthélemy Saint-Hilaire that the Chinese Government were unable to recognize the Treaty of 1874.

*The Chinese Suzerainty of Annam.*—For some years the situation so remained, French interests and prestige having suffered severely by the death of Garnier and the withdrawal of the French troops in Tongking. The Garnier aggression had turned the Annamese Court towards China, which had for centuries exercised a nominal suzerainty over Annam; the tribute remissions were now sent more regularly to Peking; and in 1880 the King dispatched a special mission bearing a letter in which the position of tributary was emphasized. China accepted the responsibility by publishing the King's letter in the *Peking Gazette*.

*French Conquest of Tongking.*—In 1882 the Governor of Cochin-China, Le Myre de Vilers, sent Henri Rivière with a small force to open up the Song-koi route to Yun-nan. He, like Garnier, found the Tongkingese intractable, stormed the Hanoi citadel, and went on to capture the other towns in the delta. Once more the Black Flags were called in, and again, like Garnier, Rivière fell a victim in one of the early encounters (May 1883). This event led Jules Ferry to decide on a forward policy; but at first the outlying garrisons were withdrawn, except from Nam-dinh and Haifong; and Hanoi was beleaguered by the Black Flags. Efforts made by Admiral Courbet and General Bouet were by no means successful, and the Commissary-General Harmand went to Hué, supported by Courbet, to bring pressure to bear upon the Annamese Court.

Tu-duc's successor was hostile, and Hué was stormed. Harmand concluded a treaty (August 25, 1883), in which Annam accepted the French protectorate, another province was annexed to Cochin-China, and the French were authorized to take military measures in Tongking. Bouet now again advanced against Son-tai, though the Chinese representative at Paris protested, and after one unsuccessful attempt the place was captured on December 16, 1883.

*Franco-Chinese Imbroglia*, 1884-5.—In this campaign the French were fighting against Chinese troops. There had been negotiations at Peking since November 1882; but no progress was made till the spring of 1884, when the Tientsin Viceroy, Li Hung-chang, intimated to the French Admiral, who had arrived at Shanghai with a squadron, that he would be glad to consider the situation with Captain Fournier, a French naval officer known to him. In this way a preliminary convention was concluded by Li and Fournier (May 11, 1884), by which China agreed to evacuate Tongking and to respect the Franco-Annamese treaties, while France engaged to respect the Chinese frontiers on the south and to pay regard to the prestige of China in the treaty which France was about to conclude with Annam. In the month following (June 6, 1884) another treaty signed by M. Patenôtre at Hué confirmed and extended the French protectorate over Tongking and Annam, altered some of the territorial arrangements of the Harmand Treaty of 1883, which had not been found satisfactory, and replaced the treaties of 1874; but in view of the discontent aroused it was not set in force for some years. Concurrently the Governor of Indo-China, M. Thomson, negotiated a convention with King Norodom, confirming and completing the treaty of August 11, 1863, strengthening the French position, and abolishing slavery, in Cambodia.

Unfortunately, a serious misunderstanding arose in connexion with the execution of the Li-Fournier Convention of May 11, 1884. A supplementary agreement fixed the dates for the evacuation of certain places in Tongking by the Chinese troops, but when the French commander proceeded to act upon it, it was found that the Chinese military authorities had not received corresponding instructions, and a collision occurred in which the French were worsted. A period of hostility followed between France and China, which was ended by a protocol signed at Paris (April 4, 1885) through the good offices of Sir Robert Hart. The effect of this protocol was to confirm the Fournier Convention, and it was followed by a treaty executed at Tientsin (June 9, 1885), in which China undertook to respect the 'treaties, conventions, and arrangements', present and future, concluded between France and Annam. Two later conventions (June 26, 1887) delimited the China-Tongking frontier and established the existing commercial relations between Tongking and China.

*Pacification of Tongking.*—For some years, till 1891, the French proceeded generally with the conquest and annexation of Tongking and Annam under cover of the 1884 treaty. When Hué was occupied in July 1885, the Annamese Government revolted. The revolt was suppressed, the new king fled, and civil war ensued in Annam. Tongking also rose, and the disorders tempted the Black Flags and Tongkingese rebels to devastate the country. The occupation of Tongking became a prolonged struggle with numerous bands of dacoits, which extended through the years 1885 to 1890, and cost the French a serious expenditure. Trade was almost at an end, and the French were gradually driven to the Red River delta, where they held the chief towns only. From Hanoi itself the Governor-General could see the smoke of the villages burned by the bandits.

With the arrival of M. de Lanessan as Governor-General in April 1891 a new era began. Heretofore the French had proceeded on the erroneous assumption that the Tongkingese and Annamese were two distinct peoples, and that the former were the oppressed vassals of the latter. De Lanessan ascertained that the way to peace in Tongking lay through the Court at Hué, and he concluded an agreement which reassured the King, who had been afraid of annexation. The King issued a proclamation which had the immediate effect of stopping all disorders except those conducted by the Black Flag pirates. In a couple of years these also were overcome, and the pirate chiefs made their submission.

*French Disputes with Siam.*—On the Chinese frontier agreements were concluded with Marshal Su, the Chinese commander, for co-operation in the suppression of piracy; but there were difficulties on the Siamese frontier. Friction arose between the French agents and Siamese troops, and after the death of Inspector Groscurin (June 5, 1893), the French Government occupied Stung-treng and Khong. Redress was demanded at Bangkok and refused. After an ultimatum which was not complied with, French gunboats forced the passage to Bangkok, and a second ultimatum was presented. This called for (1) the occupation of Chantaboun by the French until Siam evacuated the left bank of the Mekong; (2) the interdiction to Siam to maintain troops at Battambang, Siemrap, and generally within  $15\frac{1}{2}$  miles of the right bank of the Mekong; (3) or to have armed boats on the Tonlesap.

This ultimatum was executed immediately. The Siamese evacuated the left bank of the Mekong, and the King of Luang-Prabang submitted with alacrity to the French, who took possession of Laos. By a treaty

and convention concluded by Le Myre de Vilers at Bangkok on October 3, 1893, Siam renounced all claim to territory on the left bank of the Mekong or to the islands in the river; undertook to maintain no troops or fortified posts in the provinces of Battambang and Siemrap and in a strip, 25 kilometres wide, along the right bank of the Mekong; and agreed that France should continue in the occupation of Chantaboun until the terms of the treaty and convention were executed.

*British Intervention and the Franco-British Declaration of 1896.*—The British Government took a serious view of the dispute between France and Siam. Negotiations were opened at Paris and a memorandum was signed on July 31, 1893, by Lord Dufferin and M. Develle, in which both Powers recognized the necessity of constituting a neutral zone between their possessions on the upper Mekong, and agreed that the limits of this zone should be determined later. A Franco-British Commission sat for this purpose at Paris, but was unable to attain its end through want of precise knowledge of the political boundaries and physical conformation of the territories in question; it was mutually agreed to suspend action until technical agents of both countries should have made investigations on the spot. However, a convention between France and China, concluded at Peking on June 20, 1895, again brought the question sharply to the front. By an earlier convention of March 1, 1894, Great Britain had agreed to leave to China two small States, Mung Lem and Kiang Hung, over which the King of Ava and the Emperor of China had exercised suzerain rights concurrently, with the proviso that no portion of them should be alienated to any other Power without previous agreement with Great Britain. Kiang Hung lies astride the Mekong, and by the French Convention the portion of it on the left bank was assigned to France.

Before the transaction was completed the British Minister at Peking protested; and eventually compensation was accorded to Great Britain by China for the breach of treaty, while, by a joint declaration of January 15, 1896, Great Britain and France agreed that the *thalweg* of the Mekong should be the boundary between the possessions or spheres of influence of the two Powers as far as the Chinese frontier.

*Franco-Siamese Treaties of 1904 and 1907.*—A new Franco-Siamese treaty of February 13, 1904, modified that of 1893: Chantaboun was evacuated and the neutral zone along the Mekong was renounced in return for Bassak, Melupré, the district of Dan-Sai (comprising that portion of Luang Prabang on the right bank of the Mekong), and the maritime district of Kratt. By a further convention of March 23, 1907, Siam gave up Battambang, Siemrap, and Sisophon, and received in return Kratt and Dan-Sai, which were ceded in 1904.

### III. SOCIAL AND POLITICAL CONDITIONS

#### (1) RELIGIOUS

THE religion of the Annamites, who comprise about four-fifths of the population, appears on the surface to be a pale reflection of the religious doctrines and ceremonies prevalent in China. Ten centuries of domination by China have no doubt left a deep impression; but the mass of the population has not been affected so much as the official and learned classes, who by virtue of their studies in classical Chinese have imbibed the philosophy of Confucius. The chief manifestations, however, of the religious life of the people consist in ancestor-worship, spirit-worship, and respect for the dead, combined with an external aspect of Buddhism.

In every native house—even the poorest—a space is reserved for ancestral worship, and an altar is there erected for the domestic rites, which, as a rule, are performed by the eldest son, and are similar to those observed in China. The beings, objects, and phenomena of nature to which special spirits are attributed by the Annamites are innumerable. Every wood—and indeed almost every old tree—harbours a particular divinity. Every mountain, hill, and stream has its good or evil spirit. Natural phenomena, such as clouds, thunder, wind, rain, &c., have been deified, as well as the sun, moon, and stars. Amongst animals the worship of the tiger is widespread.

In Cambodia and Laos the religion is Buddhism, with traces of Brahmanism in Court circles. Temples and numerous monks or priests are to be found in

every village in Cambodia. The monks lead a life of self-control and restraint, and they are respected and regarded with affection by the people. Spirit-worship is prevalent.

In Laos temples are not so numerous as in Cambodia; the priests are more ignorant, and in practice Buddhism is reduced to external signs of deference to the priests and sacred places. The propitiation of evil spirits is the dominant characteristic of religious life in these backward regions.

Roman Catholic missions have been established in Indo-China since 1660, and central Tongking is still the field of labour of a body of Spanish missionaries. Elsewhere French missionaries have numerous stations.

## (2) POLITICAL

### *Government and Administration*

The Governor-General is the supreme administrative and military authority, and he is assisted by a Superior Council created in its present form in 1898. It corresponds to a Legislative Council, and is composed of the Governor-General as president, the military and naval Commanders-in-Chief, the Secretary-General of Indo-China, the Governor of Cochin-China, the Residents Superior of Tongking, Annam, Cambodia, and Laos, the heads of departments of the Government-General, the President of the Colonial Council of Cochin-China, the presidents of the various Chambers of Commerce and Agriculture, two high native officials, and the Chief of Cabinet of the Governor-General, who acts as Secretary to the Council.

The Superior Council at present numbers thirty-two members. It must meet once a year, but not necessarily at the same place, although Hanoi is considered the seat of government. It considers the budgets prepared for each of the five divisions of Indo-China as well as

the General Budget, and advises on any legislation or important measures which may be in contemplation.

For the better disposal of business there are four committees of the council dealing with the following branches of administration: (1) military and naval affairs, public works, railways, and commerce; (2) legislative and administrative organization; (3) budgets; (4) financial matters.

When not in session the council delegates its functions to a permanent commission of thirteen members.

Cochin-China is a French colony, and is represented in France by a deputy elected by the French citizens. It is directly administered by a Governor, assisted by a Privy Council. The Colonial Council, elected partly by the French population and partly by natives, votes on the budget.

Tongking, Annam, and Cambodia are protectorates, of which the chief French official is designated Resident Superior. He is assisted by a Protectorate Council, composed of the heads of departments and delegates of the Chambers of Commerce and Agriculture.

Laos is directly administered by a Resident Superior, who exercises a general supervision over the native officials by whom the work of administration is carried on, with the assistance of a limited number of French officers.

The Resident Superior is the representative in his division of the Governor-General, with whom he corresponds. He carries out the execution of the laws and decrees, he maintains public order, and the personnel of the local administration is placed directly under his orders. In 1897 the direct control of the Residents Superior in Tongking and Annam was strengthened by the abolition of the functions of the native Viceroy in Tongking and the transformation of the *Co-mat* (Secret Council) of the King of Annam into a Council of

Ministries, whose decisions require the approval of the Resident Superior before they can be executed.

Tongking is now in fact a protectorate in name only.

Kwang-chow-wan, the territory leased from China, is administered by French officers working in close co-operation with the local officials.

### *Justice*

In Cochin-China justice is administered in French courts by French judges. There are five magistrates (*juges de paix*), nine Courts of First Instance at different centres, and a branch of the Court of Appeal for Indo-China sitting at Saigon. The judges of the Courts of First Instance also exercise the functions of magistrates. There are, in addition, four criminal courts. Natives are not allowed to sit as judges.

French law is applied, modified by decrees where natives are solely concerned. In civil cases, local laws and customs are, to a certain extent, taken into consideration.

In Tongking, French judges with extensive powers sit at Hanoi, Hai-fong, and Nam-dinh. The Resident of each province exercises the jurisdiction of a magistrate, but he takes cognizance only of cases in which Europeans, French subjects, and foreigners are concerned. An appeal lies to the Court of Appeal for Indo-China, which sits at Hanoi.

Natives have their cases adjudicated by local officials in accordance with the native law and the ancient complicated system of procedure. When the evidence is recorded, the papers are remitted to different departments in Hanoi, according to the nature of the case, and judgement is given by officials therein, subject to the approval of the Resident Superior.

In Annam there exists a similar system.

In Cambodia and Laos, where the French Residents

likewise sit as judges in serious cases, the native courts enjoy a greater measure of independence.

Throughout Indo-China, Europeans can only be tried for serious criminal offences by French judges at specified centres.

### *Army and Police*

In normal pre-war times the military forces numbered about 25,000, of whom half were natives. The country is policed by natives, supervised by French officers.

### (3) EDUCATIONAL

The study of Chinese characters and classical literature, which prevailed in Tongking, Annam, and Cochin-China before the arrival of the French, is still maintained. Instruction is given in primitive native schools by retired officials, or by scholars who have failed to pass the higher examinations, in return for a pittance, supplemented by presents from their pupils.

When a child has mastered 500 or 600 characters, he may continue his studies at one of the Government schools which have been instituted in all the principal centres. There are three grades of such schools, and the teachers are paid by the State. In the second and third grades, a French education is imparted by European professors and by native teachers trained for the purpose. From these schools are recruited the interpreters and French-speaking Annamites in Government service.

A system of Roman characters has been invented for the Annamite language, and this is extensively used in the higher-grade schools.

In Cambodia, where there exists a language with an alphabet and native characters, instruction in reading and writing is almost universal. This is given by the

priests in the temples. In addition there are Government schools where French is taught.

In Laos a similar education prevails, but it is not so widespread.

The *École Française d'Extrême Orient* occupies itself chiefly in archaeological studies, the search for and care of ancient monuments, and the study of the languages of Indo-China and neighbouring countries.

### GENERAL OBSERVATIONS

The natives of Indo-China have accepted with apparent placidity the rule of the French, though disturbances have occurred from time to time in Annam and Tongking which show that discontent and unrest are at work beneath the surface. A recrudescence of revolutionary movement took place in Annam in 1917, but it has never been and is unlikely to be at any time so serious as to give the French authorities much trouble. Incidents on the Franco-Chinese frontier are constantly happening, owing to the predatory expeditions of 'brigands' from Chinese territory, or to the disarmament by the French authorities of Chinese refugees; but a more or less satisfactory settlement of such affairs is usually arrived at with China or with the Chinese officials of Yun-nan.

French Indo-China has been increasing in prosperity from year to year since 1898, but has by no means attained the full extent of economic development which is possible. This is evident if a comparison is made with the independent kingdom of Siam, which possesses a climate, productions, and a race of people analogous to those of Indo-China. Both as regards revenue and total trade, Siam, in proportion to her population, can claim considerable superiority.

## IV. ECONOMIC CONDITIONS

### (A) MEANS OF COMMUNICATION

#### (1) INTERNAL

THE main lines of communication of northern Indo-China radiate from the capital Hanoi. They run north-west up the valley of the Red River into Yun-nan; north-east to Lang-son and thence following the basin of the Si-kiang into Kwang-si; east down the delta of the Red River to the port of Hai-fong; and south along the western side of the same delta to the border of Annam. From this point the eastern line follows the coast down the whole length of Annam, sending off transverse lines at intervals across the Annamese chain into Laos and Cambodia. Cochin-China in the south is reached by this coastal route, which continues through Saigon to My-tho and Sadek on the Mekong. In Cochin-China, Cambodia, and Laos the Mekong and its branches form the main artery of communication, to which are added numerous canals and waterways, and several good roads which radiate from Saigon and Pnom-penh.

#### (a) *Roads and Paths*

The roads previous to French occupation were little better than tracks, sometimes suitable for carts, but more often only fit for foot or equestrian traffic. The French have made good roads of many of these tracks, and have built a network of military roads in the north suitable for wheeled traffic. Some of these in the more populous districts are destined to carry tramway lines. The work of extension, maintenance, and improvement goes on steadily from year to year.

*Tongking.*—In Tongking all the principal towns are connected by carriage-roads, which form a network in the Red River delta. In the mountainous regions of the north-west, however, rough tracks and bridle-paths are still the only means of communication.

The statistics for 1914 show that out of 5,515 miles of roads in Tongking 465 miles were metalled, the width of the metalling varying from  $6\frac{1}{2}$  to 23 ft.

*Annam.*—The roads from Hanoi to Lang-son and Ninh-binh are part of the old mandarin road which runs south along the coast of Annam, linking up Tongking and Cochin-China. This road crosses the Annamese frontier at Bim-son and follows the coast, passing through all the important towns of Annam. In the populous districts it has been rebuilt and is maintained in good order; in parts of southern Annam it is still a mere path. The total length of the mandarin road in Annam is about 900 miles, of which 382 were metalled in 1914, and 122 were still in the condition of pathways. Other roads totalled about 1,450 miles, of which 140 were metalled. There are a number of transverse roads leading from the mandarin road into interior Annam or crossing the Annamese chain at favourable points into Laos and Cambodia, but only one or two of these are fit for wheeled traffic along their whole length.

*Cochin-China.*—In Cochin-China road communications have been specially developed in the eastern parts of the colony, water communications in the west. In 1914 the returns showed a total of 1,710 miles of metalled roads, and 1,026 miles of unmetalled. The mandarin road along the coast of Annam is continued in Cochin-China through Baria to Saigon, whence good roads run in all directions.

*Cambodia.*—Of the numerous roads in Cambodia only portions amounting to about 400 miles were metalled in

1914. The most important is that leading from Saigon by Tay-ninh to Pnom-penh and on to Battambang, Sisophon, and the Siamese frontier, in all about 400 miles. It is suitable for motors almost as far as Sisophon, and about 186 miles in Cambodia were metalled in 1915. A steam ferry crosses the Mekong at Ba-nam; elsewhere this route is served by bridges. There is a metalled road from Pnom-penh to the port of Ha-tien (122 miles) by way of Kampot, and another from Pnom-penh to Chaodok in Cochin-China.

*Laos.*—Road-making in Laos is still in its infancy and only short stretches have been metalled. Along the Mekong there are occasional stretches of road to supplement water communications.

The chief obstacles to road transport in Indo-China are the numerous rivers and canals. These are gradually being surmounted by the erection of temporary wooden bridges and permanent structures in reinforced concrete. Much permanent bridging has already been completed in Tongking, and in Annam in 1914 the programme of construction included thirty-four bridges with a total length of 5,828 ft. Where no bridges exist ferries have been established.

Native road-transport consists of the small but sturdy native horses and mules for riding and pack-transport, coolie porters, and wheelbarrows. Palanquins and rickshaws are available in the neighbourhood of towns. Ox-carts are largely used in Cambodia, and elephants occasionally in Cambodia and Laos. The Europeans have added carriages and motors where suitable roads exist, but make use of the native means elsewhere.

#### (b) *Rivers and Canals*

*The Red River System.*—The main features of the Red River system, which includes practically all the

navigable waterways of Tongking, have been already described (p. 4). Further details may be considered in two divisions: (i) the river above Hanoi, (ii) the river below Hanoi, and the delta.

(i) From its source in Yun-nan as far as Yen-bai in Tongking the Red River flows in a confined channel: from Yen-bai onwards it is bordered by an ever-widening alluvial plain. The river is subject to a great rise between the months of June and October, due to the melting of snows in the mountains and to the heavy rains of the season. In 1913 the difference between high-water and low-water levels was 38 ft.—the maximum up to that date; in 1891 the difference was only  $3\frac{1}{2}$  ft. Navigability is impaired in the low-water season by rocks above Yen-bai and by shifting sandbanks below, so that the light-draught river steamers can only reach Lao-kai (about 300 miles up-stream) from July 1 to October 15; Yen-bai (about 220 miles upstream) being their terminus for the rest of the year. Junks, however, are able to reach Lao-kai and even Man-hao in Yun-nan (55 miles farther up-stream) at all seasons. The river is 656 ft. wide at Lao-kai.

The volume of traffic on the river can be gauged by the following figures:

At Hanoi in 1913 3,500 river vessels<sup>1</sup> and 20,000 junks entered and cleared. The Chinese Maritime Customs returns at Meng-tse in Yun-nan give 3,151 junks (of 4,069 aggregate tonnage) entered and cleared in 1914. The junk traffic with China has decreased considerably since the opening of the Hanoi-Yun-nan-fu Railway, the figures for 1905 showing 10,342 junks with a tonnage of 31,708. The time occupied by the voyage up-stream from Hai-fong to Lao-kai is 5 days (there

<sup>1</sup> *Chaloupes*, a word used in the French returns in a comprehensive sense, including launches, barges, and large sailing-boats, but always distinct from the Chinese junks and sampans

is no travelling by night) for steamers; from Hanoi to Lao-kai 2 months for junk's.

The Red River receives two large tributaries in the neighbourhood of Vietry, about midway between Hanoi and Yen-bai, viz. the Clear River on the left bank and the Black River on the right. Both are liable to extensive rises in the high-water season, during which they are both navigable for about 56 miles from Vietry, the former up to Tuyen-kwang and the latter to Cho-bo.

In the low-water season the Clear River is navigable to Phu-doan only.

(ii) One arm of the delta leaves the Red River about 20 miles above Hanoi, but the main network spreads out lower down, forming a complex system of waterways supplemented by canals and reinforced on the north by the River Thai-binh with its numerous mouths. Unlike the Red River, the Thai-binh is not subject to heavy floods, and its depth varies little except from the tides. It is navigable for vessels of 13 to 14 ft. draught. But the inland traffic in the waterways of the delta is carried on chiefly by launches, river steamers, junks, and sampans, and almost all the waterways are navigable for these at all seasons.

Hanoi, Hai-fong, and Nam-dinh are the chief centres of this river traffic. There are regular steamer services between the most important towns of the delta, and up the Clear River and the Black River as far as these are navigable.

Of the many mouths of the delta rivers the majority are impeded by shoals. The Kwa-dai, one of the deepest, only admits vessels of 9 ft. draught at high-water springs; but there is plenty of water within the bar and this is used as a route to Hanoi. The Kwakam, formerly the main outlet and leading to Hai-fong, has now shoaled so much that only light-draught

vessels can use it, and the main outlet is now through the Kwa-nam-trieu.

*Annam.*—The rivers in Annam are for the most part dry in the dry season and torrents during the rains. The most important is the Song-ka, but it is only navigable for 10 miles from the mouth, and the bar only admits vessels of 10 ft. draught at high tide. There are, however, numerous short stretches of natural waterways (said to total 1,490 miles) and about 370 miles of canals which are navigable for junks and sampans at all seasons.

*The Mekong System.*—The remaining waterways of Indo-China are comprised in the Mekong system, of which a general outline is given above, p. 5. For further details it may be conveniently divided into three parts: (i) from the northern boundary of Indo-China to Kratie in Cambodia; (ii) from Kratie to the delta; (iii) the delta system.

(i) In the high-water season (July to November) the Mekong, swollen by the melting of mountain snows and by the seasonal rains, assumes enormous volume. In the low-water season it shrinks to relative insignificance. In general the length from Vientiane (about 900 miles from the sea) to Kratie (270 miles from the sea) is always navigable for vessels of about 3 ft. draught in a series of reaches which are separated by stretches of difficult and sometimes impracticable rapids. Launches can reach Luang-Prabang (250 miles above Vientiane) in the high-water season, but as a rule this stretch is only practicable for junks and sampans. The main navigable reach is from Vientiane to Kemmarat, below which to Pak-moun are 75 miles broken by rapids and only navigable by shallow launches from May to August and from October to January. After this is the Bassak Reach, ending in the formidable rapids of Khon, which have, however, been

circumvented by four miles of railway crossing Khon Island. The third reach, known as the Stung-treng, extends to the rapids of Sambor-Sambok, through which there is said to be a deep channel. About 10 shallow-draught launches of the Messageries Fluviales ply on these reaches, and a vast number of native boats. The only navigable tributary is the Se-moun, on the right bank, which can be used by launches for a very limited period of the year from Pak-moun to Ubon in Siam, above which place the channel is encumbered by rocks.

(ii) From Kratie (270 miles from the sea) the Mekong is navigable at all seasons for steamers of the Messageries Fluviales de Cochin-Chine, and forms the main artery of communication in Cambodia. It is joined at Pnom-penh (170 miles from the sea) on the right bank by the important branch leading to the Great Lake, which is itself fed by a number of small rivers. In the dry season this branch is navigable for steamers only as far as Kompong-chnang (62 miles); but in the high-water season (July to December) steamers can pass through the lake and on to Bak-prea, a distance of 170 miles, and for short distances up the principal rivers which flow into the lake. Sampans circulate freely at all seasons. The total length of waterways navigable for steamers in Cambodia in the high-water season is computed to be 735 miles. The number of river vessels (from 50 to 850 tons) registered at Pnom-penh is 64, and in addition twelve steamers of the Messageries Fluviales make regular journeys from Saigon through the Cambodian waterways. Cargo-boats from Singapore and Manila also come up to Pnom-penh.

(iii) At Pnom-penh the Mekong divides into the Upper Branch (Tien-kang) and the Lower Branch (the Bassak), both of which split up nearer the coast into a number of arms, forming the western side of the Cochin-China

delta. The eastern part of the delta is formed by the many mouths of the Vaiko and the Donnai rivers.

This delta region, which comprises the greater part of Cochin-China, is a great network of rivers linked by innumerable canals. The Mekong branches, the Vaiko and the Donnai (up to a point 6 miles below Bien-hoa), are all navigable for river craft. It is calculated that there are altogether 1,084 miles of navigable waterways of primary importance, with another 1,055 miles of secondary canals, which connect all the river branches and the principal towns.

Considerable sums are being spent annually on the maintenance and improvement of the canals and creeks, and the list of first-class waterways is continually growing. In 1913 there were 208 steamboats on the inland waters; the junks are numbered by thousands. The river traffic returns at Saigon for 1913 were 1,375 vessels with an aggregate tonnage of 244,721 tons.

There are seven main mouths of the Mekong, having 7 to 10 ft. of water on the bars at low-water springs, with a rise of 10 to 12 ft. at spring tides. The depths increase inside the bars, but navigation is only safe for those with local knowledge. The northern or Kwa-tieu mouth, leading to My-tho, is the only one in general use. In the eastern part of the delta the Song-ngo Bay, on the east side of Kan-gio Point, is the entrance of the main channel to Saigon (see p. 45).

### (c) *Railways*

*Railway System in general.*—The railway system of Indo-China may be said to date from 1898. Two short strips of narrow-gauge lines in Tongking and Cochin-China were all that existed before that year, when M. Doumer's programme was accepted by the French Government and a loan of 200 million francs was sanctioned for the carrying out of the most

urgent part of it. M. Doumer's ambition was to establish a great railway junction at Hanoi, from which lines would radiate north-west to Lao-kai and Yun-nan-fu, north-east to Lang-son and the border of Kwang-si, east to Hai-fong, and south to Saigon. From the trunk line, Hanoi-Saigon, branches were to be pushed out west through the mountains into Laos. The Saigon-My-tho line was to be reconstructed and extended to Vinh-long and Kan-tho, and further a line was to be built from Saigon to Pnom-penh in Cambodia and eventually extended to Battambang and linked up with the Siamese railways. A large part of this programme has either been completed already or is actually in process of being carried out, viz. :

- (1) Hanoi to Hai-fong, 64 miles.
- (2) Hanoi to Lao-kai, 184 miles.
- (3) Lao-kai to Yun-nan-fu, 288 miles.

Built under an eighty-year concession from the Chinese Government and opened in 1910. It passes through very difficult country and is much exposed to landslips. Serious interruptions have occurred almost every year since it has been open to traffic.

- (4) Hanoi to Lang-son, Dong-dang, and Nam-kwam on the frontier of Kwang-si, 104 miles.
- (5) Hanoi to Vinh, 202 miles.
- (6) Kwang-tri to Tourane, 109 miles.

(5) and (6) are sections of the Hanoi-Saigon trunk. Of the intervening space between Vinh and Kwang-tri (about 190 miles) it appears that all but 46 miles from Dong-hoi northwards was practically completed in 1914.

- (7) Nha-trang to Saigon with branch to Ksom-gon, 278 miles.

Parts of the branch line are still under con-

struction. The intervening sections (about 330 miles) between Tourane and Nha-trang, which would complete the Hanoi-Saigon trunk, are under consideration.

(8) Saigon to My-tho, 44 miles.

The total in 1914 was 1,273 miles in actual use, with an additional 154 under construction.

*Details of Construction.*—All the Indo-Chinese railways are single lines of metre gauge. Steam traction is used, and the fuel consists of coal briquettes and in some cases of wood. On the Hai-fong-Yun-nan-fu Railway there are several important bridges in the Tongking section, viz. over the Tam-bak (295 feet), over the Lai-vu (413 feet), over the Tai-binh (1,252 feet), the celebrated Pont Doumer over the Red River at Hanoi (5,518 feet), over the Clear River (971 feet), and over the Nam-ti river at Lao-kai (394 feet); there is also a viaduct at Hanoi 2,940 feet long. In the Yun-nan section the construction was extremely difficult, involving 155 tunnels and numerous bridges, galleries, and viaducts. The construction of the other railways did not involve many important engineering works. There are two tunnels and some small viaducts between Hué and Tourane, but otherwise there is nothing especial to note. The gradients as a whole are moderate, except in Yun-nan, where the line rises 3,600 feet in 38 miles with gradients in places of 1 in 40.

*Tramways.*—The French have built a number of tramways in populous districts:

(a) In the neighbourhood of Hanoi, with a total length of 15 miles. The receipts for January-August 1914 were at the rate of £686 per mile per annum.

- (b) From Kam-giang to Phu-ninh-giang, length  $26\frac{1}{2}$  miles. The receipts for 1913 were £139 per mile.
- (c) At Tourane, from the Ilot de l'Observatoire to Fai-fo, length  $16\frac{1}{2}$  miles. The receipts for 1913 were £51 per mile.
- (d) In the neighbourhood of Saigon, length  $26\frac{1}{2}$  miles. The receipts for 1913 were £1,200 per mile.

*Relation to Government.*—The capital for the construction of the Hai-fong–Yun-nan-fu Railway was found by (1) a French syndicate known as La Société de construction des chemins de fer de l'Indo-Chine, (2) the Compagnie des chemins de fer de l'Indo-Chine et du Yun-nan, (3) the Government of Indo-China, and (4) the French Government. The management is controlled by the Indo-Chinese Government through the Compagnie des chemins de fer de l'Indo-Chine et du Yun-nan. The remaining railways are exploited directly by the Indo-Chinese Government. There are no foreign railway concessions.

*Finance.*—The following figures will give some indication of the capital, gross earnings, and profits the various of lines :

<i>Miles open in 1914.</i>	<i>Railway.</i>	<i>Capital expended.</i> £	<i>Gross earnings 1913.</i> £	<i>Profit or loss 1913.</i> £
536	Hai-fong–Yun-nan-fu	9,230,060	312,043	+ 92,445
104	Hanoi–Nam-kwan	1,641,376	35,198	+ 7,910
202	Hanoi–Vinh	1,740,000	58,133	
109	Kwang-tri–Tourane	1,260,000	12,898	– 8,514
278	Nha-trang–Saigon	2,560,000	35,074	+ 14,191
44	Saigon–My-tho	465,362	33,117	
<i>Totals</i> 1,273		16,896,798	486,463	+106,032

The aggregate profits of all the railways rose steadily from £24,419 in 1909 to the above figure in 1913.

They were well maintained in 1914, but fell considerably in 1915 owing to the effects of the war.

*Tariffs.*—Though merchants complain that the tariffs on the Indo-Chinese lines are so high as to hamper trade, in comparison with those of other French colonial railways they appear to be moderate.

On the Hai-fong–Yun-nan-fu Railway they are graded according to four zones, the third and fourth zones being more costly owing to the difficulties of the country. Passenger tariffs on this line vary from  $12\frac{1}{2}$  centimes per km. to  $16\frac{1}{4}$  for first class, from  $8\frac{3}{4}$  c. to  $11\frac{1}{4}$  for second class, from 5 c. to  $6\frac{1}{4}$  for third class, and from  $1\frac{3}{4}$  c. to 2 for fourth class. On the northern group of the Indo-Chinese railways, Hanoi–Nam-kwan and Hanoi–Vinh, which are under direct Government control, the passenger tariffs for the four classes are  $17\frac{1}{2}$  c.,  $8\frac{3}{4}$  c., 5 c., and  $1\frac{3}{4}$  to  $1\frac{1}{2}$  c. per km.

The tariffs for goods vary widely according to the distances traversed and the nature of the article carried, but statistics published in 1910 showed that the average cost per ton per km. was 11.4 c. on the Hai-fong–Yun-nan-fu Railway, 10 c. on the Hanoi–Nam-kwan, and 3.8 c. on the Hanoi–Vinh. The remaining railways conform more or less closely to the Hanoi–Vinh group.

*Adequacy to Economic Needs.*—The railways at present are fully capable of meeting economic demands. Indeed it is only the Hai-fong–Yun-nan-fu and Saigon–My-tho lines which are really remunerative. The completion of the general system, however, would doubtless bring an expansion of trade, and the following projects are under consideration :

Surveys have been made for a line from Saigon to Pnom-penh and on to Battambang and the Siamese frontier, to link up eventually with the Siamese railways at Bangkok ; a line from Kwang-tri in Annam

to Savanakhet on the Mekong; and a line on the right bank of the Mekong from Savanakhet to Kompong-chnang in Cambodia.

There are, besides, various schemes for railway extension in China, e. g. to continue the Yun-nan-fu Railway northwards to the Yangtse and the province of Szechwan, and eventually to link it up with the North China systems; and to connect Kwang-chow-wan and Tongking by a line through Nan-ning to the Hanoi-Nam-kwan railway.

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

An efficient postal service under French supervision has been established throughout Indo-China. In 1914 there were 8,719 miles of telegraph wires and 376 telegraph offices. Urban and inter-urban telephone service is installed in the most important districts.

### (2) EXTERNAL

#### (a) *Overland and River Routes*

The external communications of Indo-China by road, river, and railway are of limited scope, and have been for the most part already enumerated as continuations of some of the main lines of internal communication. They are concerned with China and Siam, principally the former, and with regard to China the provinces of Kwang-si and Yun-nan are chiefly affected.

*Kwang-si.*—The old mandarin road crosses the border of Tongking and Kwang-si at Nam-kwan and runs thence to Lung-chow and Nanning, two treaty ports on the Tso-kiang and Yu-kiang (West River). This road is kept in good order in Tongking, and even in China it is undergoing improvement and can now be used for wheeled traffic most of the way to Lung-chow. A certain amount of river traffic in sampans and rafts crosses the border in this region on the upper waters

of the Tso-kiang, which divide into two rivers just above Lung-chow. One of these rivers passes Kao-bang, and the other, the Red River, passes Nam-kwan and is navigable for sampans as far as Na-cham. An extension of the Hanoi-Nam-kwan Railway by way of Lung-chow to Nanning, from which point the Tso-kiang is navigable for launch traffic, would open the rich basin of the Tso-kiang to French trade, but hitherto the Chinese Government has obstructed all plans in this direction. Lung-chow is about 18 miles from the Tongking frontier, and Nanning about 95 miles from Lung-chow.

*Yun-nan.*—The mountain roads leading from Tongking and Laos into Yun-nan are mere tracks suitable for mule traffic. That leading from Lao-kai to Meng-tse (112 miles) and Yun-nan-fu (290 miles) is now largely superseded by the railway. The path from Upper Laos leads into Yun-nan farther west, passing the treaty port of Sze-mao, a centre of the cotton and tea trades. The distance from Muong-sing, near the border of Laos, to Yun-nan-fu is 360 miles, a journey of 18 to 20 days for caravans.

The only navigable water-route into Yun-nan is by the Red River, and that is only practicable for junks as far as Man-hao, 55 miles above Lao-kai.

The only good medium of communication between Indo-China and Yun-nan is the railway which runs from Hai-fong to Yun-nan-fu. At mile 112½ from Lao-kai it reaches Pi-che-tchai, the station nearest Meng-tse, and a branch line is being built from this point to Meng-tse (7 miles) and to the tin mines at Kochiu (about 34 miles). The chief articles of export carried by it from China are metals, cunao, hides, and tea. In 1915 it carried 1,848,746 passengers and 197,464 tons of goods. The contemplated extensions of the line north into Sze-chwan, and onwards to join the Manchurian systems, would give it very great importance both

political and economic, and would immensely increase the trade of Hanoi and Hai-fong. The journey from Hanoi to Lao-kai occupies 12 hours; and that from Hanoi to Yun-nan-fu about 47 hours, no travelling being done at night.

*Siam.*—The main line of communication between Indo-China and Siam is the road which runs from Pnom-penh through Battambang and Sisophon to the Siamese frontier and on to Bangkok. The distance from the frontier to Bangkok is about 135 miles as the crow flies.

The Se-moun river admits of launch traffic for a limited period of the year from Pak-moun to Ubon, a distance of about 50 miles.

#### (b) Ports

In the long coast-line of Indo-China there are numerous small harbours used by junks and coastwise traders, but there are only two first-class ports, Hai-fong and Saigon, both in delta country and situated some distance from the open sea. At both of these towns the dock and wharfage accommodation is undergoing extensions and improvements.

*Hai-fong* is 22 miles from the sea, but vessels can come up the channel at low water if they do not draw more than 24 ft. The main wharf has a frontage of 600 yds.; there is 27 ft. of water alongside at low tide, and there are four berths for ocean steamers. There are, besides, five secondary wharves, and quays for river boats, as well as a patent slip, 130 ft. long, with lifting power of 400 tons, and a floating dock (200 ft. long and 73 ft. wide at entrance) with lifting power of 1,500 tons. The shipbuilding firm of Marty has workshops here, where vessels of over 300 tons capacity are built and repairs to ships and machinery can be effected. There are eight large warehouses.

Outside this port, in the bay of Along, ships can anchor in safe shelter.

*Saigon* ranks among French ports between Boulogne and Bordeaux in importance. It lies up the Saigon river, a branch of the Donnai, 40 miles from Cap St. Jacques. The entrance to the channel is on the east side of Kan-gio Point. Besides valuable naval equipment, it has quays 1,128 yds. long, with a depth alongside ranging from 19 to 32 ft. ; several wharves, that of the Messageries Maritimes being 437 yds. long ; two dry docks, the largest being 545 ft. long and 68 ft. wide at entrance ; a floating dock (400 ft. by 66 ft.) capable of lifting 1,000 tons ; a slip (167 ft. by 10 ft.) ; several large warehouses ; and other facilities for shipping. The Government machine shops are capable of doing all kinds of work, and the ship-building shops of the Messageries Fluviales also undertake heavy repairs.

Of the secondary harbours the most important are Tourane, Hon-gay Bay, and Ben-thuy. *Tourane*, in the centre of the Annam coast, is situated in a large bay, which is sheltered on the sea side by the peninsula of Tien-cha. The bay, however, is shallow and ships have to lie at the entrance of the anchorage, which is connected with the harbour by a dredged channel only 10 ft. in depth. There is a wharf 200 ft. long in the Tourane river.

*Hon-gay Bay* (or *Port Courbet*) is the port of the Hon-gay coal-mines, and has a large traffic in coal-boats. It is approached by a channel 16 ft. deep, and has two wharves (260 ft. and 230 ft. long) with a depth of 24 ft. alongside.

*Ben-thuy* is a harbour in northern Annam, 10 miles from the mouth of the River Song-ka, and is accessible to vessels of 10-ft. draught at high tides.

. Navigation in general in the Indo-Chinese waters is

affected by the monsoons (see p. 6), and is rendered difficult by the frequent typhoons and storms during the summer months, and especially in September.

(c) *Shipping*

The total sea-going traffic of Indo-China in 1914 consisted of 4,389 ships, with an aggregate tonnage of 4,741,504 tons, entered and cleared. Of these, 2,102 (tonnage 56,264) were junks, mainly Chinese. The number of ships sailing under the French flag was 624 (tonnage 1,441,343), and of the remainder British, Japanese, and Norwegian shipping formed the chief part. By far the largest portion of the total trade was done with Hongkong, Singapore, Chinese ports, Siam, and the Dutch East Indies. American shipping showed a remarkable increase in the returns for 1915.

At Hai-fong in 1914, 700 vessels (tonnage 951,643) entered and cleared, carrying goods amounting to 504,698 tons, of which the French lines, Messageries Maritimes and Chargeurs Réunis, carried 64,164 tons. At Saigon in 1913, 1,322 vessels (tonnage 2,979,726) entered and cleared in external trade. At Hon-gay in 1913, 231 vessels (tonnage 301,845) entered and cleared, presumably in the coal trade.

There are regular services from Saigon to Hai-fong, Shanghai and other Chinese ports, Yokohama, Manila, and Singapore, and to Europe by the Messageries Maritimes, the Chargeurs Réunis, the Peninsular and Oriental, and (before the war) the Norddeutscher Lloyd. There is also a large traffic by cargo boats of various nationalities with the ports of China, Siam, the Dutch East Indies, and the Straits Settlements.

*Coastwise Traffic.*—The coastwise traffic carried on by steamers, junks, and sailing-boats is very considerable, but as it is usually included with river traffic in the general returns the exact figures are not easily assessed,

The returns for Hai-fong in 1914 showed that 30,117 tons of exports and imports were carried in the coastwise trade; the coastwise traffic of Hon-gay amounted to 3,701 boats (tonnage 269,659), and that of Ben-thuy to 1,237 boats (tonnage 72,650).

The coast trade of Saigon is very active; figures for 1913 give 814 steamers and sailing ships (tonnage 916,349) and 4,683 junks (tonnage 80,373) entered and cleared.

A regular coastal service by the Messageries Maritimes and the Chargeurs Réunis plies between Hai-fong and Saigon, calling at Tourane and sometimes at Nha-trang and Kwi-nhon; junks and small steamers traffic between the various ports along the coasts of Tongking, Annam, and Cochin-China; and launches ply between the ports of Tongking and North Annam. The Messageries Maritimes have a coastwise service in the Gulf of Siam between Saigon, Ha-tien, Chantaboun, and Bangkok.

*(d) Telegraphic and Wireless Communications*

There are wireless stations at: (1) Bachmai, close to Hanoi, open to the public, normal range 1,000 nautical miles; (2) Kien-an, 1 mile south-west of the Observatory at Hai-fong, open to the public, normal range 350 nautical miles; (3) Tourane, normal range about 300 miles; (4) Cap St. Jacques, open to the public, normal range 2,800 miles; (5) Kwang-chow-wan, normal range 500 nautical miles. They are all controlled by the Government of Indo-China. Cables are laid from Saigon to Singapore, Pulo-Condore Islands and Pontianak, Hongkong, Tourane, and Hai-fong; and from Tourane to Amoy, Hongkong, and Manila. It is proposed to lay a cable from Hai-fong to Macao.

## (B) INDUSTRY

## (1) LABOUR

The Annamese, who form about four-fifths of the population, are intelligent, industrious, and docile. From an industrial point of view they are superior to all the neighbouring races, and can easily be taught to deal with machinery. Unfortunately, they rarely attach themselves to an employer, but leave without any consideration for the work in progress, as soon as they have amassed enough savings. Though eager for gain they are not speculative or enterprising in their undertakings, and they are hostile to all innovations which do not offer a material and immediately appreciable result. They require close supervision in their work, as their chief aim is to get the maximum of profit by the minimum of labour. As agriculturists, however, they are indefatigable workers, and their careful methods enable them to exploit the more unfertile districts. Many of them are skilled and artistic workers in embroidery, carving, jewellery, and similar crafts.

In the large towns industrial schools have been established, and the pupils supply the factories, business houses, and plantations with the native labour which is indispensable in a country where Europeans cannot be employed on manual work. On the other hand, the natives have no factories of their own, but work at home, or at most two or three together in a small workshop. Formerly the workers belonged to guilds; these were suppressed in 1841, but the various trades continued to a great extent to live in definite groups.

The great number of Chinese immigrants in the country is remarkable, and even more striking is their importance. They form an essentially temporary part

of the population, as they always aim at returning eventually to their own country. Yet they have monopolized all the small trades, some of the larger trades, and various industries. They lend money at high rates to the natives at seed-time, and in some parts of the country half the rice swamps are in the hands of Chinese mortgagors. In the agricultural districts of Cochin China and Cambodia, and also in the mines in the north of Tongking, Chinese have been brought in in large numbers to reinforce the native labourers. In general, the Chinese work harder, but they are more exacting than the Annamites. They form very closely knit colonies, and in the large towns they live in special quarters.

The average wages paid to coolies are 20–30 cents a day, in Cochin China 30–40 cents. Skilled workers, such as masons, carpenters, &c., get 30 cents to 1 piastre a day. The rates of pay for the Chinese are slightly higher. Women coolies get 15 cents, children 8–10 cents. Chauffeur mechanics, who are almost all Chinese, get 58–70 piastres a month. They all find their own food. Although such wages appear low, native labour is not really much cheaper than labour in Europe, except on piece-work, if the quality and quantity of work done is taken into consideration.

## (2) AGRICULTURE

### (a) *Products of Commercial Value*

*Vegetable Products.*—Rice is by far the largest product of the country, and not only satisfies the requirements of the population, but provides a large proportion of the exports. Cotton is grown in large quantities in Cochin-China and Cambodia, and also gives good results in Laos. Tea, of which there are a certain number of plantations in the highlands of Tongking and Annam,

grows wild in Upper Laos. Other cultures are rubber, sugar-cane, coffee, ground-nuts, beans, pepper, sesame, jute, indigo, and tobacco, besides gums and vegetable oil, and medicinal plants such as cinnamon, cardamoms, and areca-nut.

*Rice.* The delta lands of Tongking and Cochin-China, the borders of the Cambodian lakes, and the coastal regions of Annam are the only parts of Indo-China which are really cultivated, and these are almost entirely under rice. The extent of the rice lands in 1911 in Cochin-China and Tongking was estimated at about 3,400,000 acres in the former and at 2,000,000 acres in the latter. The land under this culture might be considerably extended in Cochin-China, Cambodia, and Laos, and to a less degree in Annam and Tongking; but it is not easy to persuade the Annamese to move from their homes, especially to the higher lands, where new ground might be broken.

Two rice crops are obtained yearly in Tongking and North Annam; two sometimes in Central Annam; and one only in South Indo-China. Statistics for 1915 show that 1,373,239 tons were exported from Indo-China, of which Cochin-China contributed about 1,000,000 and Tongking about 230,000. The largest amount exported in any year was 1,428,121 tons in 1914.

*Other cereals* are grown to a very limited extent and are consumed locally, maize alone (chiefly grown in Tongking) providing a surplus for exportation. In 1915 the export of this grain amounted to 62,989 tons; the largest export for any year was 133,273 tons in 1913.

*Other Crops.* The export of pepper, which is grown in Cambodia and Cochin-China, amounted to 4,243 tons in 1915; of cotton, grown in small quantities everywhere, to 3,740 tons (highest export, 9,893 tons in 1913); of sugar-cane from Annam to 5,506 tons; of tea from Annam and Tongking to 947 tons; of coffee from

Tongking to 357 tons ; and of rubber, most successful in Cochin-China, to about 375 tons. All these cultures might be profitably developed with a view to the European market, especially Cambodian cotton, which is of high quality, rubber, and beans and sesamum for their oil-products. There is an abundance of rushes for matting in Cochin-China, and experiments prove that ramie grass and jute could be cultivated, but at present little progress has been made with them.

The cultivation of *vegetables* and *fruit* is very general, and almost all the European growths have been successfully acclimatized. In 1915 166 tons of fresh fruit and 368 tons of preserved fruit were exported.

*Animals and Animal Products.*—The buffalo, which is found wild in Laos, has been domesticated in the agricultural districts, and the zebu bull is used for transport purposes. Stock-rearing flourishes in a few districts, and there is an indigenous race of horses, of small size but excellent. Attempts to acclimatize the Arab horse and sheep from Aden and China have not been successful. Pigs thrive everywhere. The rivers and the Cambodian lakes abound in fish, and dried and salted fish from them and from the coasts form an important item of export trade. The silk-worm may be said to be indigenous in Tongking, where there are several thousand acres of mulberry-trees. Varieties of mosquitoes, ants, and leeches combine to make the forests bordering on the Mekong impracticable, and peculiar species of grubs and caterpillars destroy the cotton and coffee plantations of Cochin-China.

Large tracts of the upland country of Indo-China offer favourable conditions for stock-rearing, especially the plateaux and certain provinces in Annam, Upper Tongking, parts of the Mekong valley, and Cambodia ; and there is no doubt that an important industry might

be developed, though at present the number of cattle is not large in proportion to the population of the country.

The Government statistics for 1916 give the following numbers of existing stock :

<i>Oxen.</i>	<i>Cows.</i>	<i>Calves.</i>	<i>Buffalo-species.</i>	<i>Pigs.</i>
634,526	523,553	289,939	1,583,712	2,662,534

Cambodia and Laos have the largest proportion of the bovine species, the buffaloes being largely used for agricultural purposes and for cartage. Horse-breeding flourishes in Gia-dinh (Cochin-China), Phu-yen (Annam), and in Tongking. A small number of sheep are grazed in Cochin-China and in the Bao-lak districts in Tongking. Pigs are kept everywhere, but Tongking has the largest number.

The export trade, which is capable of expansion, amounted in 1915 to 15,954 head of cattle (the highest number, 33,799, was reached in 1911) and 57,346 pigs.

Poultry are kept everywhere. Besides supplying local needs, they are likely to become a considerable article of export.

*Sericulture* is very general throughout Indo-China, but hitherto the methods of the natives have been quite unscientific and the quality of the raw silk poor. The country, however, is very suitable for this culture, and improved methods to which the French are paying attention should give important results. The export of raw silk in 1915 was 55 tons, the highest amount of any year being 100 tons in 1910.

#### (b) *Methods of Cultivation*

The French have done, and are doing, much to regularize and extend production by irrigation and drainage schemes destined to combat the drought and floods which have proved disastrous in the past ; and they are endeavouring to improve the primitive methods

of cultivation employed by the natives. The land is divided up into very small holdings, and the natives are very conservative in their habits and adhere to the implements used by their ancestors; but the French are gradually showing them the value of more modern methods, and the Annamese are intelligent and capable of being taught. In the delta lands the natives have relied chiefly on the alluvial deposits of the floods to enrich the soil, with the help of any organic manures that are available. The French colonists are experimenting with chemical manures, and are introducing the natives to their use.

*Irrigation.*—Considerable irrigation and drainage works have been undertaken by the French to regulate the supply of water from the rivers for agricultural purposes. This has been especially the case in the Tongking delta lands, where some 750 miles of embankments protect the low-lying lands from the Red River floods in the season.

In the province of Bak-giang (Tongking) the Kep canal makes the water of the Song-thuong available in the dry season for a large area of rice land; and in the same province a system of sluices permits the irrigation or drainage of a large area between the Song-ka and Song-thuong. Drainage and irrigation in the Kim-son district of the province of Ninh-binh (Tongking) have made two crops of rice possible instead of one. The reclamation by drainage of the Plaine des Jones in Cochin-China was an important work, but there is a vast amount of work still to be done in these directions throughout Indo-China.

### (c) *Forestry*

The total forest area of Indo-China has been roughly estimated at about 60 million acres, containing all kinds of tropical growths. In Tongking and Cochin-China

much harm has been done by unscientific exploitation, but there still remain fine forest areas in the hilly parts of Cambodia, Laos, and southern Annam, which should prove valuable when the difficulties of labour and transport are overcome and proper attention is given to their development. At present the actual yield of forest products can hardly be estimated, only the export figures in a few cases being available. Those for the year 1915 are given below in brackets, where possible.

A considerable amount of timber is cut and floated in rafts down the Mekong and dealt with in the saw-mills which form a prominent industry in Cambodia. Bamboo canes, teak (2,000 tons), and hard woods for marqueterie, &c., and timber for building purposes are produced to meet general requirements, but a very much larger export trade might be developed, if full advantage were taken of the great demand for woods of all sorts in China. Moreover, the bamboo, which is already used in numerous industries from building to the manufacture of hats, is likely to prove valuable in the paper-making industry also. The coco-nut palm and pine-apple plant are found in the southern regions of Indo-China, and coco-nut oil (280 tons), fibre, and copra (7,864 tons) are produced from the former. Other forest products are gums of various kinds, lacquer and oils (1,542 tons), benzoin, resin, *cunao* roots (7,334 tons), castor-oil (500 tons), cardamoms and amomums (440 tons), cinnamon (380 tons), areca-nut, and *palétuvier* bark for tanning. For many of these there is a growing demand in the European market.

#### (d) *Land Tenure*

The tenure of the land is either in the hands of the natives who pay a tax as rent to the State, or in the hands of French colonists, who have received concessions amounting in 1909 to a total of considerably over

1,000,000 acres. The concessionaires lease the land to natives, providing them with the necessary materials for agriculture and receiving in return a percentage of the products.

### (3) FISHERIES

The fishing industry occupies a large population in Indo-China, the chief centres being the Gulf of Tongking, the south coast of Annam, and the lakes of Cambodia. An immense bank covering 18,500 sq. miles of the Gulf of Tongking, with an average depth of 98 ft., is the fishing-ground for 50,000 individuals in Tongking and Annam, but the surplus production of fish comes from the south, mainly from Cambodia, as is shown by the returns of the export trade. In 1914 fish products, chiefly dried and salted fish, were exported from Saigon to Hongkong, Singapore, and Siam to the value of £668,000. The salting and drying of fish, which are large industries in Cambodia, Cochin-China, and Annam, are mainly in the hands of Chinese and Annamites. The manufacture of fish-oils for the European market is capable of development.

### (4) MINERALS

There is no doubt that the mineral resources of Indo-China are considerable; but, except in Tonkin, they have hitherto been neglected, owing largely to deficiency of communication and transport. The mining concessions in 1913 were distributed in the following proportions: Tongking 26 units, Annam 3.3, Laos 0.8, Cambodia 0.7, Cochin-China 0.3. Concessions are not granted to foreigners.

*Coal.*—Tongking is rich in coal deposits, which are mined in the provinces of Kwang-yen, Hai-duong, Thainguyen, and Nam-dinh. By far the most important coal-fields are those at Hon-gay in Kwang-yen. They cover

54,000 acres, in which nine principal seams are worked by 5,400 Annamese and Chinese coolies under the superintendence of 60 whites. The coal is of anthracitic nature, and much of it is mixed with bituminous coal from Japan and made up into briquettes. It is used in all the industries of Indo-China. The production in 1913 amounted to 371,145 tons, of which 220,195 tons were exported, and in 1915 to about 600,000 tons, or about 80 per cent. of the total production of Indo-China. The mines are connected by tramway with the coal wharves of Hon-gay Bay (see p. 45).

The coal-fields of the island of Kebao, north-east of Hon-gay, cover an area of 61,000 acres. They had been neglected for some years, but in 1913 were being exploited to the extent of 13,322 tons and are likely to be of importance in the future. They are served by Port Wallut harbour.

Two coal-fields near Dong-trieu, in the province of Hai-duong, have an area of 3,140 and 1,792 acres respectively, and produced 61,500 tons of anthracite in 1913. They are served by river transport.

In Central Annam there is an important coal-field near Nong-son on the Tourane river, covering 7,500 acres; it produced 13,000 tons of anthracite in 1913. The field is served by barges on the Tourane river.

*Iron.*—Rich deposits of iron ore, mainly hematitic, are reported in Indo-China, though little or nothing has been done as yet towards exploiting them. The most important are in the Pnom-deck in Cambodia, at Kwang-tri in Annam, and at Thai-nguyen, Yen-the, and Mo-ksat (near Kao-bang) in Tongking. The deposit of Ku-van (Thai-nguyen) is being worked in a rudimentary fashion and 100 natives are employed; there is also a primitive foundry there. The development of the iron industry in Tongking is worthy of attention.

*Tin* and *tungsten* are mined in seven concessions in

the province of Kao-bang (Tongking), which produced 197 tons in 1913.

*Zinc.*—There were nine concessions for zinc-mines in Tongking in 1913, producing 33,438 tons, one-third of which was mined at Trang-da, Tuyen-kwang, on the Clear River. A modern installation for calcining zinc in Tongking is contemplated.

*Other minerals.*—*Antimony* is found on the frontier near Mon-kay (882 tons exported in 1911), and *manganese* at Dong-trieu (450 tons exported in 1913). *Copper* has been found near Vien-tiane and Savanakhet in Laos, and lead at Lang-son and Mon-kay in Tongking. Traces of *gold* have been seen in many parts in Laos and Annam, and a claim of 2,500 acres is being worked at Bong-mieu (Kwang-nam, Annam), which employs 440 coolies and produced 3,857 oz. of gold in 1913.

Statistics are not available as to the depth of the various mines or the extent of undeveloped mineral resources.

Mention should be made of the *calcareous deposits* in Tongking, particularly on the Ile des Deux Song near Kwang-yen, which are used in the manufacture of cement, and of *plastic clays* and *kaolin* used in pottery and porcelain manufacture. *Granite* is quarried at Gia-dinh, Long-ksuyen, and Chao-dok ; and *laterite* at Bien-hwa in Cochin-China.

The supply of coolies for the mines has been sufficient hitherto, but the large number of additional workers, which the growth of the coal-mines bids fair to require, may prove difficult to find.

#### (5) MANUFACTURES

The Annamese are industrious and clever craftsmen, and the French have found them apt workmen in the various manufactures which they have introduced. The native manufacturing industries are chiefly weaving,

mat-making, pottery, paper-making, wood-carving, incrustation of woodwork, and the making of furniture, all of which are carried on by individuals and on a small scale. The French have introduced a number of modern manufactures, and have set up well-appointed factories for them.

*Machinery and Metals.*—Metals are not at present manufactured on a large scale. Machine shops and shipbuilding establishments exist at Hai-fong and Saigon (see pp. 44, 45), and shops for boat-building and motor repairs at Kan-tho in Cochin-China. There are important railway machine shops at Gia-lam, near Hanoi.

*Textiles.*—Silk-spinning and weaving are carried on in large factories at Thai-binh and Nam-dinh in Tongking, at Binh-dinh in Annam, and at various places in Cochin-China. The considerable matting industry at Phat-diem and Thai-binh has suffered severely during the war. The textile industries are capable of further extension in connexion with the development of cotton and silk culture. At present there are only a few mills dealing with raw cotton at Khsach-kandal in Cambodia.

*Miscellaneous.*—The principal factories are located in Tongking and Cochin-China. In Tongking the chief manufactures are those of briquettes at the coal-fields at Hon-gay; cement at Hai-fong; distillery products at Hanoi, Hai-fong, and Nam-dinh; tiles, bricks, and pottery at Hanoi and Dap-kau. There are, besides, breweries, printing works, tobacco factories, match factories, tanneries, and ice factories at Hanoi and Hai-fong; a button factory at Hanoi; a soap factory at Hai-fong; paper-mills at Dap-kau; potteries at Ba-trang, and porcelain and faience works at Mao-khe (Hai-duong) and Mon-kay. In Cochin-China, Saigon and Cholon have saw-mills, distilleries, breweries, tile

and brick-works, and a match factory; and there are saw-mills, dye-works, and brick-works in other parts.

There are nine rice-mills at Cholon and Saigon, each capable of turning out from 450 to 900 tons of rice a day, and other rice-mills are established at My-tho and Rach-gia in Cochin-China.

The tanning and paper-making industries would acquire considerable importance if improved methods were adopted.

Sugar-refining is practised to a limited extent in Cochin-China.

The manufacture of salt from salt-pans on the coasts of Annam and Tongking and at Baria and Bak-lieu in Cochin-China has attained considerable importance and is capable of further extension.

In Cambodia there are numerous saw-mills which deal with the timber coming down the Mekong in rafts. These are situated near Chlong and at various points on the river, and there are a number at Pnom-penh. Pottery is made at Kompong-chnang.

In Annam there is a match factory at Ben-thuy, and an ice factory and perfumery at Hué.

There are no manufacturing industries of any account in Laos, owing to the undeveloped state of the country.

#### (6) POWER

Electric lighting and power stations have been erected at Hai-fong and Hanoi in Tongking, and at Saigon and My-tho in Cochin-China. Little use seems to have been made as yet of the water-power of the large rivers for generating electricity, but there is a power station at Chuy-chanver in Cambodia, on the right bank of the Mekong, which is used by saw-mills, and it is proposed to use a fall in the Canal Principal in Thanh-hoa to generate electric power for irrigation works.

### (7) STATE CONTROL OF NATURAL RESOURCES

The administration of the countries which compose Indo-China is entrusted to the Residents Superior, who are answerable to the Governor-General. Assisted by Chambers of Commerce and Agriculture, these provincial governors exercise a wide control over the natural resources of the country. Concessions are made by them to colonists for agricultural purposes; and the concessionaires are responsible for the exploitation of the land by native labour, paying a percentage of the profits to the State and rewarding the natives by a proportion of the produce. These concessions in 1909 amounted to more than 1,000,000 acres. Much of the cultivated ground has long been in the hands of the natives, whose possession is not as a rule disturbed, and the State has exercised very little control over these lands. But the large tracts of forest and undeveloped country, more especially in the mountainous regions, are assigned, as occasion arises, to prospective colonists by the Government, which can exercise a thorough control over their development. Moreover, the development of communications and of irrigation and protective works is in the hands of the State, which is thus able to regulate the exploitation of important areas. Mining concessions are granted by the Government, and all applications are carefully scrutinized. The State has founded several permanent institutions for scientific research in agriculture and forestry, and every assistance is given to the colonists.

The chief error in the past has been a too exclusive concentration on the cultivation of rice, to the neglect of the many other possibilities of the country. Under a wise administration and with a more liberal allotment of capital it should be possible in future to exploit in a profitable manner the great and varied

resources in forestry, minerals, and agriculture which Indo-China undoubtedly possesses.

### (C) COMMERCE

#### (1) DOMESTIC

The internal trade of Indo-China in 1915 was valued at £8,646,432, the average for the five years 1910-14 having been £8,239,294.

##### *(a) Principal Branches of Trade*

The principal articles of trade in 1915 were: rice and maize; flour; preserved foods; cheese, butter, eggs; cattle and meat; fish products, dried, salted, and fresh fish; vegetables and fruit; alcohol, wine, and beer; salt, sugar, pepper; medicinal plants, areca-nut, cinnamon, amomums and cardamoms; tea, tobacco, copra, opium; *cunao*; bean oil; manure; petrol; coal; common wood and hard wood; cotton, silk, cotton thread, silk tissues, clothing, sacks, and mats; pottery, glass, paper, metalwork, furniture; matches; engineering materials; sand, flint, lime, cement, bricks, and tiles; raw and prepared hides.

The chief of these in order of value are fish products, rice, silk tissues, coal, pottery, opium, and matches.

##### *(b) Towns, Markets, and Fairs*

The chief markets and centres of exchange are:

*Tongking.* Hai-fong and Hanoi for general trade; Nam-dinh for rice; Bac-ninh for embroideries; Dap-kau, Hai-duong, Hung-yen, Ninh-binh, Son-tay, Phu-lang-thuong, and Lang-son for local industrial and agricultural products.

*Annam.* Hué, Tourane, Vinh, Thanh-hoa, Kwi-nhon, Binh-dinh, and Fai-fo.

*Cochin-China.* Saigon and Cholon for rice and general trade; Baria for salt; My-tho, Sadek, Bien-hoa, Vinh-long for rice and local trade.

*Cambodia.* Pnom-penh, a busy commercial town; Kratie, a port on the Mekong; Kampot, a market for pepper; Battambang, an agricultural centre.

*Laos.* Vien-tiane, Luang-Prabang, Savanakhet, Attopeu, Bassak, and Pak-se are all markets for local trade. At certain times of the year temporary markets or fairs are set up at convenient places along the Mekong.

(c) *Organizations to promote Commerce*

There is a Director-General of Agriculture, Forests, and Commerce for Indo-China; and there are Chambers of Commerce at Saigon, Hanoi, and Hai-fong, and a United Chamber of Commerce and Agriculture of Annam and Cambodia at Tourane.

(d) *Foreign Firms*

American or European firms operating directly in Indo-China are very few, being limited to the Standard Oil Co., the Eastern Telegraph Co., and a few banks and agencies in Hanoi, Hai-fong, and Saigon. The Chinese, however, are well represented, notably in Laos, where they frequently transact business for the European houses established at the seaports.

(2) FOREIGN

(a) *Exports*

*Quantities and Values.*—The value of the exports of Indo-China in 1915 totalled £11,449,572, of which goods to the value of £2,426,088 went to France and her colonies, and the remainder, to the value of £9,023,484, to foreign countries.

The following table shows the principal articles of export in 1915:

<i>Description.</i>	<i>Amount.</i>	<i>Value.</i> £
Amomums and cardamoms	969,812 lb.	
Antimony	630 tons	
Block tin		1,117,752 <sup>1</sup>
Cattle	15,954 head	
Cement	39,787 tons	
Cinnamon	949,615 lb.	
Coal	450,999 tons	390,572
Coffee	800,498 lb.	
Copra	7,864 tons	
Cotton, ginned and raw	3,740 tons	
Cotton thread	3,948,921 lb.	494,720
<i>Cunao</i>	7,423 tons	
Essence of <i>badian</i> (star anise)	164,455 lb.	
Fish, dried, salted, &c.	30,715 tons	459,736
Gum and stick-lac	221,103 lb.	
Hides	2,908 tons	465,250
Maize	62,989 tons	302,348
Pepper	9,504,120 lb.	155,200
Rice	1,373,239 tons	7,518,560
Rubber	830,480 lb.	
Silk	121,787 lb.	
Sugar	5,506 tons	
Tea	2,127,948 lb.	
Zinc	33,102 tons	172,132

The following statistics show the fluctuations of the more important articles of export trade:

<i>Description.</i>	<i>Amount in 1913.</i>	<i>Average Amount for Years 1910-14.</i>
Cotton thread	3,774,529 lb.	3,501,157 lb.
Fish, dried, &c.	31,730 tons	30,240 tons
Hides	4,132 tons	3,204 tons
Maize	133,273 tons	89,319 tons
Pepper	9,212,670 lb.	8,564,313 lb.
Rice	1,286,804 tons	1,130,183 tons

The export of coal shows a steady annual increase: that of zinc was 5,370 tons higher in 1915 than in 1913, the year which showed the highest total previously.

*Countries of Destination.*—Less than one-quarter of the total exports in 1915 went to France and her colonies. The remainder was distributed in the following proportions: to Hongkong, 112 units; Singapore, 41; Dutch East Indies, 28; Philip-

<sup>1</sup> Mostly in transit from Yun-nan.

piners, 17; China, 13; England, 5; Japan, 3; Siam, 2; America, 1.

In nearly every case the goods are sea-borne, being shipped from Hai-fong, Saigon, and the minor ports (see p. 45). A certain number, however, are carried by the Hai-fong-Yun-nan-fu Railway and by junks on the Red River into Yun-nan and by road from the railhead at Nam-kwan into Kwang-si. Laos trades chiefly with Siam and China.

(b) *Imports*

*Quantities and Values.*—The value of the imports in 1915 totalled £6,483,789, of which goods to the value of £1,880,743 came from France and her colonies and the remainder from foreign countries. There was a fall of nearly £2,000,000 as compared with 1914, due almost entirely to a reduction of about 50 per cent. in the imports from France and her colonies owing to the war.

The following table shows the principal articles of import in 1915:

<i>Description.</i>	<i>Amount.</i>	<i>Value.</i> £
Block tin		1,126,452 <sup>1</sup>
Bottles	1,494 tons	
Cotton, ginned	3,173 tons	
Cotton goods		651,348
Cotton thread	3,492½ tons	656,412
Flour	6,390 tons	
Jute sacks		346,776
Metals, manufactured		306,740
Metals, unworked		404,808
Opium from India		247,748
Petrol	38,152 tons	342,662
Porcelain, Chinese and Japanese		193,000
Silk goods		498,840
Sugar	5,990 tons	
Tea	974 tons	
Thread—flax, hemp, ramie, and jute	576 tons	
Tobacco		135,053
Wine	1,220,685 galls.	

<sup>1</sup> Mainly from Yun-nan for re-export.

*Countries of Origin.*—More than two-thirds of the imports in 1915 came from countries other than France and her colonies. The chief countries were the following, the relative proportions of their trade being indicated by the following figures:

Hongkong, 55 units; Singapore,  $23\frac{1}{2}$ ; China,  $19\frac{1}{2}$ ; England,  $4\frac{1}{2}$ ; Dutch East Indies, 3; America, 2; Japan, 2; British India, 2.

Flour came from America and Australia; sugar from Hongkong and Singapore; petrol from America and the Dutch East Indies; unworked metals from England; cotton goods from Japan, *via* Hongkong; silk goods from China.

Most of the trade was sea-borne, the chief exception being the goods sent from Yun-nan and from Kwang-si.

### (c) *Customs and Tariffs*

The tariff of the Customs Union of Indo-China is substantially the same as that of France, heavy import duties being levied on foreign goods. As each individual class of goods has its own special rate, it is difficult to give a general idea of the duties exacted; but a comparative table of the *ad valorem* rates for all classes of goods shows 34 per cent. to have been the average rate for France in 1903.

French goods pay no import duty in Indo-China, and goods exported to France are exempt from export duty, with the exception of sugar, which is regulated by special legislation, and of various other colonial products (e. g. coffee, cocoa, tea, vanilla, pepper), which pay half the duty applicable to similar foreign products according to the minimum tariff. Goods from French colonies pay no duty.

Some authorities complain, apparently with justification, that the numerous duties constitute a hindrance to the proper development of the natural resources

and commerce of the country. This has been particularly detrimental to Laos, according to Captain de Reinach, who wrote in 1911 :

‘ Malheureusement, les droits de sortie, comme les taxes locales, sont exorbitants, et le port de Saigon se ferme par la douane, à l’entrée comme à la sortie. La vallée du Mékong, ouverte en droit, est en réalité fermée par une barrière douanière. C’est là une grave faute dont on ne peut prévoir les conséquences.’<sup>1</sup>

#### (d) *Commercial Treaties*

By a treaty signed at Tientsin on June 9, 1885, the French obtained favoured treatment for specified articles of commerce between Tongking and the treaty ports in Yun-nan and Kwang-si. This took the form of a reduction of one-fifth of the 5 per cent. *ad valorem* duty on imports into China and of one-third of the similar duty on exports from China, as well as exemption from the transit tax levied at the frontiers on the carts or animals carrying the merchandise. In addition a number of articles in the nature of money, food, clothing, and personal effects destined solely for the use of the travellers were permitted to pass free of tax. At the same time the traffic in gunpowder, arms, saltpetre, sulphur, lead, spelter, salt, and immoral publications was forbidden.

A modification of this treaty, dated June 26, 1887, reduced the 5 per cent. duty on the same articles by three-tenths in the case of imports and by four-tenths in the case of exports.

### (D) FINANCE

#### (1) *Public Finance*

By a law of 1878 a General Budget was created for French Indo-China to deal with such expenditure as

<sup>1</sup> *Le Laos*, p. 353. Cf. the remarks on the *régime douanier* at pp. 92-3 of the Lyons Fair Handbook, *L’Indo-Chine* (1914).

was of common interest to the whole country. There are separate budgets for each of the States and the Provinces, and municipalities also have their own budgets. The General Budget is supported by the revenue from the Government monopolies, excise, and other indirect contributions, the customs duties, with the exception of those levied for the benefit of the Chambers of Commerce or the municipalities, and the posts, telegraphs, and railways in all the States. Besides maintaining these services the General Budget provides for the military and judicial services, public works, and other works relating to the whole of the Union. It may receive subsidies from the Home Government or be called upon to make contributions. For 1918 the revenue and expenditure of the General Budget balanced at 47,166,050 piastres.

The Local Budgets are supported by the revenue raised in each State, with the exception of the heads allotted to the General Budget, the municipalities, or the Chambers of Commerce. The greater part of the revenue is derived from direct taxation. The Local Budgets for 1918 balanced at the following figures :

	<i>Piastres.</i>
Cochin-China . . . . .	8,582,900
Annam . . . . .	5,047,173
Cambodia . . . . .	6,120,600 <sup>1</sup>
Tongking . . . . .	10,231,676
Laos . . . . .	1,747,800
Kwang-chow-wan . . . . .	469,960

The cost of the Laos administration is borne by Cochin-China (to the extent of six-thirteenths), Tongking and Annam (five-thirteenths), and Cambodia (two-thirteenths).

<sup>1</sup> Including 525,000 piastres allowed for the civil list of the King and princes.

The detailed figures for the General Budget for 1909 (the latest available) were as follows :

	REVENUE.	<i>Piastres.</i>
Customs . . . . .		8,208,542·68
Indirect contributions and excise . . . . .		21,445,366·24
Registration, lands . . . . .		1,576,684·10
Posts, telegraphs, and telephones . . . . .		818,209·50
Railways . . . . .		1,431,334·60
Forests . . . . .		716,808·36
Interest on capital . . . . .		506,292·56
Contributions from Local Budgets . . . . .		1,047,282·37
Various . . . . .		137,690·16
Extraordinary receipts . . . . .		1,690,012·76
		<u>37,578,223·33</u>
	EXPENDITURE.	<i>Piastres.</i>
Government and finance . . . . .		401,659·56
Agricultural inspection . . . . .		159,585·36
Military . . . . .		5,701,742·70
Naval . . . . .		103,650·20
Judicial and police . . . . .		1,022,326·86
Treasury . . . . .		662,113·57
Customs and excise . . . . .		9,648,453·95
Posts and telegraphs . . . . .		1,947,780·78
Forest and geographical services . . . . .		520,278·30
Public works . . . . .		4,221,884·48
Railway . . . . .		1,587,159·37
Education, sanitation, &c. . . . .		364,462·63
Subsidies and premiums :		
Mercantile marine . . . . .		1,172,869·12
Transport . . . . .		764,063·22
Various . . . . .		2,077,417·70
Debts repayable by annual instalments . . . . .		6,071,114·63
		<u>36,526,562·43</u> <sup>1</sup>

<sup>1</sup> This is the total as given in the *Statistiques des Finances des Colonies françaises*, 1902-11. The actual addition of the figures, however, comes to 36,426,562·43.

The figures for the four chief Local Budgets in the same year were as follows:

COCHIN-CHINA.	
<i>Revenue.</i>	<i>Piastres.</i>
Direct contributions . . . . .	4,645,784·88
Lands, property register, &c. . . . .	40,256·77
Rents . . . . .	96,599·50
Various . . . . .	654,329·31
Former receipts . . . . .	12,408·51
	<hr/> 5,449,378·97
<i>Expenditure.</i>	<i>Piastres.</i>
Administration, police, &c. . . . .	1,536,485·18
Education and poor relief . . . . .	746,451·30
Treasury . . . . .	175,000·00
Property register, &c. . . . .	412,193·99
Public works . . . . .	634,461·71
Commerce, agriculture, and industry . . . . .	113,686·44
Transport . . . . .	508,469·47
Various . . . . .	1,322,730·07
	<hr/> 5,449,478·16
CAMBODIA.	
<i>Revenue.</i>	<i>Piastres.</i>
<i>Produits sur rôles et assimilés</i> . . . . .	2,064,345·33
Rents . . . . .	385,699·33
Various . . . . .	410,043·53
Former receipts . . . . .	6,128·21
	<hr/> 2,866,216·40
<i>Expenditure.</i>	<i>Piastres.</i>
Administration, police, &c. . . . .	1,451,410·18
Education and medical service . . . . .	191,085·33
Property register . . . . .	46,928·18
Treasury . . . . .	208,634·66
Public works . . . . .	245,522·43
Port and fleet . . . . .	57,750·31
Printing . . . . .	19,622·66
Agriculture and commerce . . . . .	44,028·89
Transport . . . . .	147,130·66
Various . . . . .	239,445·13
	<hr/> 2,651,558·43

## ANNAM.

<i>Revenue.</i>	<i>Piastres.</i>
Direct contributions, licences, &c. . . . .	2,710,414·32
Various . . . . .	208,779·78
Levy on reserve funds . . . . .	195,833·33
	<hr/>
	3,115,027·43
 <i>Expenditure.</i>	 <i>Piastres.</i>
Court, Royal Family, and native administration . . . . .	928,999·92
Administration, police, &c. . . . .	1,005,517·04
Education and medical services . . . . .	173,935·27
Treasury . . . . .	75,000·00
Public works . . . . .	259,655·75
Agriculture . . . . .	92,872·65
Transport . . . . .	114,976·71
Various . . . . .	112,971·87
Extraordinary . . . . .	267,368·35
	<hr/>
	3,031,297·56

## TONGKING.

<i>Revenue.</i>	<i>Piastres.</i>
Direct contributions . . . . .	130,336·93
Annamite taxes . . . . .	4,961,288·26
Rents, market dues, &c. . . . .	582,993·19
<i>Recettes d'ordre</i> . . . . .	2,759,988·65
Various . . . . .	444,292·30
Levy on reserve fund . . . . .	1,023,061·46
	<hr/>
	9,901,960·79
 <i>Expenditure.</i>	 <i>Piastres.</i>
Administration, police, &c. . . . .	2,772,014·91
Education and medical services . . . . .	597,995·89
Treasury . . . . .	209,300·00
Public works and property register . . . . .	709,063·57
Commerce, industry, and agriculture . . . . .	303,332·21
Annamite administration . . . . .	165,808·18
General . . . . .	1,506,073·92
Debts due . . . . .	485,679·32
Transports . . . . .	397,744·56
	<hr/>
	7,147,012·56

The financial situation in the colony is very satisfactory. At the end of 1912 the Reserve Fund of the General Budget amounted to 9,616,715 piastres, while those of the Local Budgets amounted to 4,948,700. In both cases this represented a very considerable advance on previous years.

### (2) *Currency*

The coinage of French Indo-China is as follows :

*Silver pieces.* The piastre,  $\frac{1}{2}$ -piastre,  $\frac{1}{5}$ -piastre, and  $\frac{1}{10}$ -piastre. The piastre weighs 27 grammes and the fractional coins are in proportion ; the piastre and  $\frac{1}{2}$ -piastre are 900 fine, but since 1898 the  $\frac{1}{5}$ - and  $\frac{1}{10}$ -piastre have been only 835 fine. The exchange value of the piastre fluctuates, but it is usually rather less than 2s. (frs. 2.50).

*Bronze coins.* There are two bronze coins, one of a 100th part of a piastre in value and the other of a 375th part.

*Paper currency* as issued by the Banque de l'Indo-Chine is readily accepted.

*Native currency.* Bars of silver and iron and small canoe-shaped pieces of copper are in use in certain parts of the colony.

### (3) *Banking*

The State Bank is the Banque de l'Indo-Chine, which has branches at Hanoi, Hai-fong, Tourane, Saigon, and Pnom-penh. There are, besides, at Haifong and Saigon, branches of the Hongkong and Shanghai Banking Corporation, and of the Chartered Bank of India, Australia, and China.

Advances are made to agriculturists by the Banque de l'Indo-Chine on the harvest prospects at the rate of 8 per cent. ; but difficulty has been found in arranging

a security for the loans. In Cochin-China the bank is protected against loss by the colony, which receives 2 per cent. of the interest in return.

#### (4) *Foreign Capital*

Foreign capital does not directly play a conspicuous part in the development of Indo-China. The Chinese residents, however, are largely interested in certain industries, especially in the milling of rice; in Laos they are very active as middlemen, and are said to exploit the natives unfairly. The exploitation of the mineral resources of the country is an important field for investment, but foreigners are not permitted to own mines. German companies, however, before the war were large purchasers of the minerals obtained, and indirectly influenced the mining industry to a great extent. For other fields of investment see above, p. 60.

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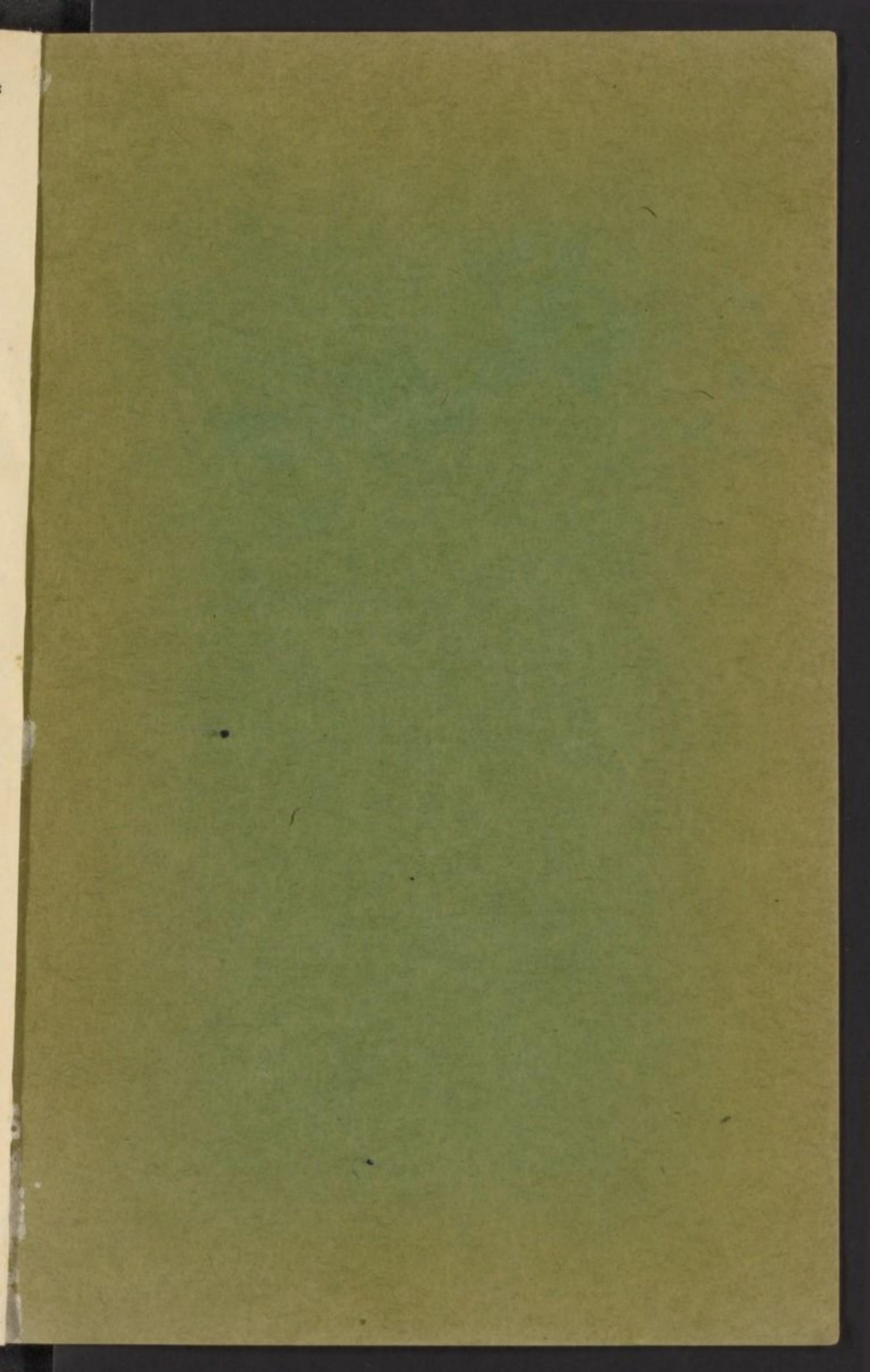
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#### MAPS

French Indo-China is shown on Indo-China, scale 1 in. = 32 miles, published in 1893 under the direction of Col. H. R. Thuillier, Surveyor-General of India; and on two maps issued by the Naval Staff Intelligence Division, viz.: (1) Indo-China, scale 1 : 4,000,000 (orographical); (2) Kwangchowwan, scale 1 : 1,000,000.



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