

SUPPLEMENTS

TO THE

F.M.S. GOVERNMENT GAZETTE,

1921.

369

22

h 76

CONTENTS.

[*Order of binding.*]

Annual Reports, 1920—

Chief Secretary

Administration—

Perak

Selangor

Negri Sembilan

Pahang

Malay Studies

Geologist's

Supreme Court

Mines

Registrar of Companies

Fisheries

Museums

Railways

Education

Annual Reports, 1920—(*cont.*)

Trade and Customs

Posts and Telegraphs

Financial

Forest

Agriculture

Report of the Directors of the Public
Officers' Guarantee Fund

Medical

Trade Returns:

Federated Malay States—

Fourth Quarters, 1920 and 1919

For the Years 1916 to 1920

First Quarters, 1921 and 1920

Second do. do.

Third do. do.

AUGUST 12.

Federated Malay States.

SUPPLEMENT

TO THE

F.M.S. GOVERNMENT GAZETTE,
1921.

CONTENTS:

CHIEF SECRETARY'S ANNUAL REPORT, 1920.

PUBLISHED BY AUTHORITY.

PRICE 50 CENTS.

KUALA LUMPUR:

PRINTED AT THE FEDERATED MALAY STATES GOVERNMENT PRINTING OFFICE.

1921.

CONTENTS.

	Page.
I.—FINANCIAL 	1
II.—TRADE, CUSTOMS AND SHIPPING 	2
III.—LANDS AND SURVEY 	3
IV.—GEOLOGY AND MINING 	4
V.—FORESTRY 	5
VI.—AGRICULTURE 	6
VII.—FISHERIES 	9
VIII.—LEGISLATION 	9
IX.—POLICE 	10
X.—PRISONS 	10
XI.—PUBLIC HEALTH 	10
XII.—EDUCATION 	12
XIII.—MUSEUMS 	13
XIV.—POSTS AND TELEGRAPHS 	13
XV.—PUBLIC WORKS DEPARTMENT 	14
XVI.—RAILWAYS 	15
XVII.—GENERAL 	16

APPENDIX.

GENERAL RETURN OF REVENUE, EXPENDITURE, TRADE, AND POPULATION.

FEDERATED MALAY STATES.

THE CHIEF SECRETARY'S REPORT

FOR THE YEAR 1920.

[The value of the dollar is 2s. 4d.]

[A pikul is 133 $\frac{1}{3}$ pounds av.]

I.—FINANCIAL.

1. The estimates of revenue and expenditure as passed by the Federal Council on the 28th November, 1919, budgetted for a revenue of \$60,605,121 and an expenditure of \$94,863,188, the difference to be provided from the surplus balances in hand. Of this estimated expenditure, the following sums, amounting to \$51,417,935, were on capital account :

BUDGET FOR 1920.

				8
Railway, Open Lines, Capital Account	...	...	...	11,865,645
Do. Construction, Capital Account	...	...	...	19,625,250
P.W.D. Special Services, Roads, Streets, Bridges	...	...	...	13,372,178
Do. do. Works and Buildings	...	...	...	5,272,162
Do. do. Irrigation and Drainage	...	...	...	542,800
Posts and Telegraphs Special Expenditure	...	...	...	739,900

2. The actual revenue for the year was \$72,277,146, and the actual expenditure \$100,433,471. The increase of actual revenue over the estimate was thus \$11,964,719, and was mainly under the headings of Customs, Licences, and Railways. The increased expenditure was almost entirely due to the temporary allowances and revised salaries of the public service.

ACTUAL REVENUE
AND EXPENDITURE.

3. The surplus balance to the credit of the Federated Malay States Government on the 1st January, 1920, amounted to \$109,926,017. The revenue for 1920 being \$72,277,146, and the expenditure \$100,433,471, the surplus balance on the 31st December, 1920, was \$81,769,692.

SURPLUS BALANCES.

4. On the 31st December, 1920, the Government's investments stood at \$49,551,477 taken at the approximate market value. They were mainly in 5 per cent. War Loan 1929-1947, 5 per cent. National War Bonds, 1924 and 1929, and 4 per cent. Funding Loan.

INVESTMENTS.

ASSETS AND
LIABILITIES.

5. The following statement shows the assets and liabilities of the Government on the 31st December, 1920:

Liabilities.	Amount.	Assets.	Amount.	Total.
	\$ c.		\$ c.	\$ c.
Cash	2,435,689 44	Cash with Agencies ... ..	...	700,863 86
Deposits	2,452,269 60	Cost. Approximate value.		
Public Debt	15,000,000 00	\$ c. \$ c.		
War Savings Certificates	314,558 04	Investments:		
Ceylon Agency	13,190 07	Gold Securities	53,555,952 78 44,812,119 36	
Suspense Account	4,501,370 12	Indian	5,318,865 87 3,451,208 57	
* Surplus	81,769,692 71	Municipal Bonds	1,288,150 00 1,288,150 00	
			60,162,968 65 49,551,477 93	60,162,968 65
		Investment Account War Savings Certificates ... ..	...	305,498 04
		Loans:		
		Siamese Government	29,400,000 01	
		Native States	6,137,776 80	
		Brunei	430,000 00	
		Planters	2,541,934 59	
		Miscellaneous	438,281 46	38,947,992 86
		Sundry Advances ... ..	...	5,955,268 15
		Drafts and Remittances ... ..	...	414,178 42
Total	106,486,769 98	Total ... ..	...	106,486,769 98

* The surplus of \$81,769,692 does not however make any allowance for the loss in connection with the rice control. The reason for this is that the exact amount of the loss is as yet unknown. The estimated loss is \$20,000,000. The subject is referred to in paragraph 90 of this report.

II.—TRADE, CUSTOMS AND SHIPPING.

LOCAL COMPANIES.

6. During the year 54 local companies with a total capital of nearly \$39 millions were registered as against 27 companies with a total capital of \$7 millions in 1919.

TRADE.

7. The aggregate value of trade for the year was \$465,028,728; but this increase of 16.5 per cent. (like the increase of 33 per cent. in the preceding year) is mainly due to increased prices rather than to increased volume. On an estimated population of 1,300,000, its distribution was £42 per head. Exports totalled \$288,715,698 (an increase of 3.4 per cent.), whilst imports were \$170,522,123 (an increase of 43.4 per cent.): the balance of trade, though not as high as in the preceding year, was nevertheless decidedly favourable. The distribution of trade in imports and exports is as follows: Singapore, 37.2 per cent. and 56.6 per cent.; Penang, 24.6 per cent. and 22.7 per cent.; Malacca, .2 per cent. and 2 per cent.; the United Kingdom, 17.9 per cent. and 16.1 per cent.; other British possessions, 11.7 per cent. and .7 per cent.; and foreign countries, 8.2 per cent. and 1.6 per cent.

CUSTOMS.

8. The revenue from customs, excise and the opium monopoly yielded \$34,499,096, a decrease of \$2,891,536, which is more than compensated by the fact that the war taxation, which in 1919 had yielded \$4,761,078, came to an end on the 31st December, 1919. Import duties produced \$3,471,978 whilst export duties amounted to \$16,923,835.

9. Sales of chandu show that there is a continuous yearly decrease. The sales were 1,577,180 tahils (1 tahl= $1\frac{1}{3}$ ounces avoirdupois) against 1,650,936 tahils in 1919. There was no change in the selling price.

OPIMUM MONOPOLY.

10. The number of ocean-going steamers, which called at Port Swettenham, was 299 against 197 in 1919. The increase was mainly due to the vessels carrying rice on Government account for the Food Control. The clearances of merchant vessels were 1,163 with a tonnage of 1,474,788, and differ little from the figures for the preceding year.

SHIPPING.

III.—LANDS AND SURVEY.

11. There was at the end of the year in private occupation about 2,221,331 acres under agricultural and building titles, and about 247,061 acres under mining titles. The corresponding figures for last year were 2,106,446 and 256,387. It is estimated that of the 27,623 square miles covered by the four States of the Federation, 13.4 per cent. is land in private occupation, 10.4 per cent. is forest reserve, and 76.2 per cent. is still State land. Much of the State land has no road or railway access. In the upper reaches of the Perak and Pahang rivers there are still great areas of almost unexplored forest.

AREA UNDER TITLE.

12. It was decided during the year to add to the number of Malay reservations (areas within which land may only be owned by Malays) and action is being taken accordingly. At present the Malays often prefer to take up land outside the reservations, because when it has been brought under cultivation, it is readily saleable to persons of other nationalities. But it is necessary for the Government to take a long view, and to be ready for the time, which is not far distant, when in some districts there will be no State land left within a reasonable distance of a road or railway.

MALAY RESER-
VATIONS.

13. The land revenue (including \$669,185 from sales) amounted to \$4,004,095 as compared with \$3,533,829 (and \$344,735) in 1919.

LAND REVENUE.

14. The Revenue Survey Branch of the Survey Office surveyed 12,209 lots comprising 153,711 acres, during the year.

REVENUE SURVEY.

15. The Trigonometrical Branch made a reconnaissance survey with the object of finding a satisfactory water parting boundary between Southern Pahang and Johore. Eight to ten parties were engaged on this work, traversed 600 miles of country, and dealt with a total area of 733 square miles. Elsewhere there was done useful work which does not call for particular comment.

TRIGONOMETRICAL.

16. The Topographical Branch made surveys comprising in all 59 square miles, at the Ayer Hitam Forest Reserve, the Ampang Catchment Area, Mount Ophir-Catchment Area, Sungei Besi (as a possible cantonment site) and Fraser's Hill.

TOPOGRAPHICAL.

17. The use of aeroplanes for forest survey was investigated in conjunction with the other departments interested. The general conclusion arrived at was that, though aerial photography would be of great value in reconnaissance work, a definite proposal to Government would not be justified until further information was obtained regarding the general conditions of flying in this country, and the system of aerial photography of forests in which there are no fixed points. It will be difficult to provide landing places.

AEROPLANE
SURVEYS.

IV.—GEOLOGY AND MINING.

GEOLOGICAL.

18. The geological survey of Upper Perak and Kuala Kangsar districts was continued. The survey of the Langkawi Islands (Kedah) was completed. Boring for coal in the State of Perlis was temporarily suspended, two bores of 81 and 68 feet having been sunk, mostly in clay soil. A discovery of coal was reported near Slim, but investigation showed only a black carbonaceous shale. From various places, further specimens of the black, lustrous, carbonaceous shale common in the Peninsula were received for report, but the amount of carbon, which is present in a state resembling graphite was not sufficient to be of any value in any sample, nor was it sufficiently free from quartz. Graphite occurs as small flakes in the crystalline limestone at Lenggong, but not in sufficient quantities to be worth concentrating. On Erik Estate, in the Bernam, a deep bore for oil is being sunk by a syndicate.

EXPORTS OF TIN.

19. The tin-ore, reduced to a metallic basis, and block tin exported during the year amounted to 34,935 tons as compared with 36,935 tons in 1919 and 37,370 tons in 1918. The export of tin-ore represents about 88 per cent. of the total. The export duty (in millions of dollars) was \$12.2 in 1920, \$9.9 in 1919, and \$13.1 in 1918.

PRICE OF TIN.

20. At the beginning of the year the price of tin was \$167.50 per pikul.* The price increased rapidly, until at the end of February it reached the record figure of \$212—thereafter, a reaction set in and the price began to decline. Except for a rally about the middle of the year, the fall continued until, at the beginning of December, the price stood at \$90 per pikul. The position at that period became so critical that, in order to save a number of mines from closing down, and to prevent the consequent dislocation of labour, the Government decided to purchase. The Government's price at first was \$110 per pikul, and this was raised to \$115 on the 21st December. That was the position at the close of the year under review. It may be recorded however that the Government ceased to buy in February of the present year.

FLUCTUATIONS IN
PRICE OF TIN.

21. The following table is interesting as showing the fluctuations in the price of tin during the past seven years. (It must be remembered that the cost of production was far higher in 1920 than it had been in 1914):

	1914.	1915.	1916.	1917.	1918.	1919.	1920.
	\$	\$	\$	\$	\$	\$	\$
Highest ...	95.25	86.50	97.50	140.00	182.50	166.00	212.00
Average ...	73.44	78.17	87.53	108.74	150.62	120.68	150.67
Lowest ...	57.00	69.50	77.25	85.00	117.50	100.00	90.00
Fluctuation ...	38.25	17.00	20.25	55.00	65.00	66.00	122.00

THE SLUMP IN TIN.

22. The rise in the price of tin at the beginning of the year was as extraordinary in its rapidity as in its height. It was chiefly due to reckless speculation on a reduction of production combined with increased consumption in America and the United Kingdom and a revival of

* One ton = 16.8 pikuls. £1 = \$8.47. Therefore, for practical purposes, the formula for the conversion of "dollars per pikul" into "pounds per ton" is to multiply by two.

consumption by the Central European Powers. The slump was due to a variety of causes, amongst which were the unexpected unloading on the London market of tin that had been held in Holland, the liquidation of large stocks of Chinese tin which had been detained at the beginning of the year in Chinese ports by reason of the high price of silver, the disorganization of the Welsh tin-plate industry, the variations in the value of the pound sterling, the general labour unrest in Europe, and the consequent diminution of demand by manufacturers. Briefly, the hopes of the speculators were completely falsified.

23. About 102,424 persons (including *dulang* pass holders) were employed in tin mining at the end of the year. The figures had been about 128,660 in 1919 and 160,395 in 1918. Labour employed on extraction and transport of firewood is excluded from these figures.

LABOUR.

24. The tungsten ores of the Federated Malay States are wolfram and scheelite: of wolfram, 113 tons were exported as against 207 tons in 1919; of scheelite, the export was 120 tons as against 228 tons in 1919. These figures do not include 54 tons of tungsten ores (99 tons in 1919) imported into the Federated Malay States for treatment, and subsequently re-exported.

TUNGSTEN ORES.

25. The only gold mine now working in the Federated Malay States is that of the Raub Gold Mining Company. It produced 12,023 ounces during the year. From alluvial native workings about 800 ounces was obtained in Perak, Negri Sembilan and Pahang.

GOLD.

26. Malayan Collieries, Limited (Selangor), produced 247,917 tons of coal. Its output has increased steadily year by year. The Government Railway Administration took 39 per cent. of the year's output; the mines took 46 per cent.; 4 per cent. was taken by other local consumers, and 11 per cent. was exported. A labour force of 2,100 is employed. An electric coal cutter started work in January. The plant has 1,937 horse-power. Two 120 horse-power electrically-driven turbine pumps have been installed for carrying off the water from the sand stowage scheme.

COAL.

27. The Malayan China Clay and Pottery Company, Limited, is producing 20 tons of China clay per diem from an experimental plant at Gopeng. Large works are to be installed.

CLAY.

28. The control of tailings from alluvial tin lands worked by hydraulic methods received the usual attention of the Mines Department. It will be the problem of the near future.

TAILINGS.

V.—FORESTRY.

29. An area between the Kinerling and the Perak, in Upper Perak, was proved to be well stocked with keruing and meranti, and unusually rich in merbau. It is proposed to reserve 50,000 acres. In the Temerloh district (Pahang) good forest was found in the Jinka valley, and an area of 125,000 acres was preliminarily notified for reservation. State land at Bukit Gayang in the Rompin district (Pahang) contains excellent timber, mainly balau and kapur.

EXPLORATION.

30. The forest reserves were increased by 35.7 square miles, and now comprise 2,913.5 square miles, representing 10.4 per cent. of the total area of the Federated Malay States.

RESERVES.

EXPLOITATION.

31. From the mangrove forest reserves, there was a largely increased output both of firewood and poles. The management was good, and the price of mangrove firewood (\$6 per ton f.o.r. Port Weld) compares very favourably with the cost of fuel elsewhere. The output of the "coupes" per acre was highly satisfactory. In the inland forest reserves particular attention is being paid to improving the methods of the timber cutters. There is great waste at present, and the areas allotted to the licensees are not exhausted by them. Further improvement is necessary, but, being educative work, it must be gradual: otherwise the men throw up their work. Except towards the end of the year, there was a keen demand for good timber, and prices were unusually high. The present antiquated system of hauling enormous logs through the forests must give way before long to some system of taking portable, electrically-driven saws to the trees.

RESEARCH AND
EXPERIMENTS.

32. The time of the Forest Research Officer was chiefly devoted to study of the local timbers: his work, entitled "Commercial Woods of the Malay Peninsula", is now in the press. The timber durability tests were extended, and further experiments with preservatives were made. Our forests contain products of great commercial possibility, for instance, rattans, fibres, damar, wood-oil, vegetable oils, wood-distillation products, tannin, gutta-percha, paper-making material; and the need for research on a bigger scale is urgent.

INDUSTRIES.

33. Applications for concessions of paper and pulp making from bamboo and lalang, and of alcohol (for motor spirit) from nipah, have been received, and are under consideration. Exclusive rights for a wood distillation business were granted in Pahang. A company known as "Malayan Matches, Limited," has erected its premises, and has its machinery ready for erection.

FINANCIAL.

34. The revenue of the department was \$2,019,716 and the expenditure \$1,871,588. Both are record figures.

VI.—AGRICULTURE

STAFF.

35. In January, only 18 out of 36 appointments for European officers were filled. Five men, who had been granted leave in 1919, returned to duty, and six others went on leave. The scientific work of the department suffered in consequence. When appointments are filled, and the leave roster again normal, a great improvement may be expected. In the inspection branch of the department, much work devolved upon the Malay staff. Malay officers were in charge of Negri Sembilan, Perak North and Perak South, and, in the Colony, of Province Wellesley, Penang and Malacca.

RUBBER.

36. Rubber suffered badly in 1920. The price fell steadily month by month from \$1.12 a pound in January to 32 cents in December. Under-consumption, rather than over-production, appears to be the cause of the trouble, neither America nor Europe being able at present to consume its normal quantity of rubber. Until the accumulated stocks in America, London and the Far East have been absorbed into consumption, the market will be weak. A demand for legislation for compulsory restriction of output was made by the planting industry on the ground

that any voluntary system would operate unevenly, and would, in any event, inevitably fail as the price began to improve. The demand was refused (during the current year) on the ground that it would involve undue Government interference with economic conditions, and that conditions must be allowed to right themselves.

37. Slab rubber has been demonstrated to be the best form of cured rubber, by reason of its comparatively small deterioration during storage. Samples of estate rubber were tested for tensile strength, rate of cure, and moisture content. The work on moisture content was carried out as a result of the market ruling on undercured smoked sheet: it proved that, in the majority of cases, the market ruling as to undercuring is not based on a correct principle, and that there is no relation between the normal internal moisture of sheet rubber and its liability to develop moulds. The adoption of exact technical standards for judging rubber in the open market would be to the advantage of all parties, and the question is worthy of the special and serious attention of the planting industry.

RUBBER
MANUFACTURE.

38. The conclusions arrived at by collating the results of soil analyses for rubber estates are recorded by the Director of Agriculture in the following terms:

SOILS.

"It appears from the results of chemical analyses, that much of the soil now carrying rubber is exceedingly poor, and is losing its virginal fertility with such rapidity that artificial compensating elements must shortly be resorted to on a large scale. In many cases, not only is the surface soil being denuded of its plant nutrients more quickly than weathering can replenish the supply, but the underlying subsoil is in an unhealthy condition, and likely to become more so on account of the water table and the character of the subsoil water.

"No definite data have been obtained to show the actual relationship between soil acidity and rubber yields, but the high order of acidity exhibited by the majority of estate soils shows that an unhealthy condition for root development is the rule rather than the exception.

"In connection with soil analyses for estates, it must be recorded that there is a lamentable lack of interest displayed by the planting community in the whole subject of soil investigation, and there appears to be no desire to improve soil conditions by following up analyses with experimental work on fertilization."

On most estates efforts to prevent soil wash are being made by catchment pits, terracing, contour draining, contour planting of Guinea-grass or citronella, and by the planting of low growing covercrops.

39. Many small holdings are, for the time being, practically abandoned; and, as they are dangerous centres for the spread of disease, they are receiving special attention. In spite of the efforts of the Agricultural Department, "mouldy rot" (*sphaeronema fimbriatum*) has made headway. A special campaign against it has been planned. Increased difficulty is reported in dealing with "black stripe" (*phytophthora faberi*): the most serious outbreak occurred on the East Coast of Pahang just after the monsoon rains. The Brown Bast Committee is publishing its report. The cause of the disease, which is less prevalent than it was two years ago, remains unknown.

RUBBER DISEASE.

40. Departmental experiments in daily and alternate day tapping conducted on old trees show results in favour of the alternate day system. Thinning out is receiving more attention, and its advantages are becoming recognized. Experiments on Castleton Estate proved that, when trees were thinned out from 108 to 75 trees per acre, they gave a higher total yield per acre.

TAPPING AND
THINNING OUT.

YIELDS.

41. The District Officer, Jelebu, gives figures of output in his district, and shows that, whilst the average yield of estates over 100 acres is 345 pounds per acre per annum, it is only 130 pounds for the smaller estates. Bad tapping, bad husbandry, and close planting are some of the causes for this sticking contrast.

COCONUTS.

42. Copra did well during the year, average price being \$22 a pikul. Scientific work was done by the department on individual tree selection for particular vegetative and fruiting characteristics, and on tests to find the heavy yielders. Investigations by the Mycologist in connection with "bud rot" proved that the introduction, by inoculation, of any organism capable of vigorous growth on coconut bud tissue, will, if introduced into the bud direct, cause symptoms previously considered typical of "bud rot." Seven different cultures were employed: three fungi, three bacteria, and a mixture of bacteria.

PADI.

43. At the experimental station at Titi Serong, in Krian, considerable progress was made with the selection of heavy yielding strains of local varieties of wet rice. In addition to pure line work, work is proceeding with the collection of foundation stocks. Of previously selected lines, three varieties *Sa'raup*, *Radin* and *Pahit* were grown in multiplication plots preparatory to distribution for seed purposes.

Experiments at Pekan, Pahang, show that, although the dry-land padi of that district gives poor yield, yet there is every hope that, with more efficient cultural methods and improved seed, considerably increased crops may be expected.

The area under wet and dry padi cultivation in 1920 was 142,000 acres and 55,000 acres, respectively. The corresponding figures in 1919 had been 130,000 and 31,000 acres. In 1918, they were 112,000 and 13,000. This remarkable increase is almost entirely due to the high price of rice. Though free imports of foreign rice have been allowed again, and are bringing the price to a normal figure, the most earnest endeavours of the Government will be devoted to encouraging local cultivation. A return of the area under cultivation in each State, of the total yields reported, shows that the average yield of the harvests of the last three years has been 210 gantangs* per acre for the wet rice cultivation and 125 gantangs for the dry rice.

IMPORTED RICE AND
LOCALLY GROWN
RICE.

44. The Director of Food Production reports that, as a result of the rice control, it has been possible to obtain accurate records of the imports of foreign rice, and, by comparing them with the reported results of the local crops, to arrive at the following statement (in millions of gantangs)*:

Perak ...	...	...	...	grows	13	...	imports	16 $\frac{1}{2}$
Selangor ...	...	...	...	"	$\frac{3}{4}$	...	"	14
Negri Sembilan ...	...	...	...	"	2 $\frac{3}{4}$	...	"	6
Pahang...	...	...	...	"	2 $\frac{1}{4}$	...	"	1 $\frac{3}{4}$
				Total ...	18 $\frac{3}{4}$	...		38 $\frac{1}{4}$

Pahang grows more than half its requirements. Perak and Negri Sembilan would be very nearly self-supporting if they doubled their respective yields. Selangor is, however, the weak spot; and because of it,

* 8 gantangs = 1 bushel.

the Federated Malay States as a whole would practically have to treble the yield in order to be self-supporting. The land is available. What is necessary is to make padi planting an attractive and paying business. When that is done, the rest is easy. For this reason alone, the work of the Agricultural Department in seed selection is of the greatest importance to the country.

45. Various investigations have been made into the African oil palm, and numerous commercial enquiries have been answered. The Agricultural Department is satisfied, by experiments on the Government Plantation at Gunong Angsi, that citronella grass distillation might be made a very profitable side line on rubber estates. Castor-oil fell in price, and less interest has been shown in it by planters. Cinchona is receiving the attention of the department. Sugar was, in the pre-rubber days, a paying crop; and there were large and valuable sugar estates in the country. The land that was then under sugar is now under rubber. But there are great areas of State land still available, and special terms are offered by the Government. "Rosella" (*Hibiscus subdariffa* var. *altissima*) received a good deal of public and press attention during the year. The results from a small experimental plot at Government Plantations, Kuala Kangsar, have been very satisfactory. The plant is easily grown, and no machinery is necessary for the preparation of the fibre for the market. The quality of the fibre is stated to be equal to that of the best Bengal jute.

MISCELLANEOUS
PRODUCTS.

VII.—FISHERIES.

46. Owing to lack of staff, no scientific work of any kind was done. The fishermen's boats, stakes, nets and equipment are all duly licensed, but the control over their methods is as yet less effectual than it might be. The post of Inspector of Fisheries was vacant until November, and is, at the time of writing, again vacant. The s.l. "Shark" was engaged mainly on fisheries inspection work. It was decided in Perak to restrict drastically the *ambai* method of fishing (by which vast quantities of immature edible fish are taken for use as pigs' food) with a view to its abolition in two years' time.

VIII.—LEGISLATION.

47. The law with regard to Probate and Administration, Police, Minor Offences, Customs, and Registration of Births and Deaths was federalized and simplified by the substitution in each case of one Federal Enactment, brought up to date, for the various State Enactments and amendments thereto previously in force; and five Enactments were by this means substituted for no less than forty-five. Provision was made in the new Probate and Administration Enactment for the re-sealing (which could not be done before) of probates and letters of administration granted outside the Federated Malay States.

48. Of the new legislation the most important items were the Trustee Enactment, the Public Trustee Enactment and the Registration of Schools Enactment. The first of these was designed to mitigate the terrors of a trusteeship by defining the duties of a trustee and laying down rules for his guidance, the second makes the necessary provisions for the appointment of an officer to perform similar duties to those which have been carried out with such conspicuous success by the public trustee in England; and the third is referred to in the chapter dealing with education.

IX.—POLICE.

49. Recruiting for the Malay Contingent was good, and the physical standard was satisfactory. Only 58 Indians were enrolled, a smaller number and poorer quality than in any previous year. The force is distributed through 180 police stations.

50. There was a great decrease in serious crime, except in respect of "serious" thefts and unlawful societies. The number of serious thefts forms practically half the total number of serious crimes: the increase in their number is partly due to the rise in the value of property, so that a theft of property which, at pre-war values, would have been a "minor" theft, is now classified as "serious."

X.—PRISONS.

51. There are seven prisons. On the 1st January, 1920, there were 1,602 prisoners: during the year 8,472 were admitted; and 1,489 remained at the close of the year. The daily average figures were: Civil Prison, 178; short-sentence and revenue grade, 803; long sentence and condemned, 531. Nine executions were carried out. Four prisoners escaped. There were no suicides. The daily average of sick was 2.45 per cent. as compared with 2.73 per cent. in 1919. There were 40 deaths, of which 4 were from malaria, 3 from dysentery, 2 from pneumonia, and 31 from "other causes", of which debility may be presumed to be the cause or the predisposing factor.

XI.—PUBLIC HEALTH.

(i).—VITAL STATISTICS.

STATISTICS.

52. For the purpose of this report, the population is estimated at 1,300,000. There were 36,556 births and 43,705 deaths: the rates being 28.12 and 33.62 per mille, respectively. Within the past ten years the birth-rate has varied between 19.41 per mille (in 1911) and 27.94 per mille (in 1917), whilst the death-rate during the same period has varied between 29.37 per mille (in 1919) and 52.85 per mille (in 1918, the influenza year). Infantile mortality is still painfully high.

(ii).—PREVENTIVE.

STAFF.

53. The Health Office suffered greatly from lack of staff. Out of an establishment of 31, there were only six Health Officers. Such being the case, there is but little to record.

MALARIA.

54. The Malaria Advisory Board, which had last held a meeting in May, 1918, did not meet during the year. (It may however be recorded that at the date of this report, it has revived, and is holding meetings at least every month). In Perak, the British Resident created Mosquito Destruction Boards in various districts of the State under the Chairmanship of the local Health Officer, or (failing a Health Officer) the local Medical Officer. The Boards, which were well provided with staff and funds, were successful. Malaria was made a notifiable disease in Taiping municipal limits, with such good results that the regulations on the subject have been extended to several other towns. The work done by the

Executive Engineer, Malaria Advisory Board, is recorded in the chapter of this report dealing with the Public Works Department. Malaria accounted for 20,595 deaths during the year, being 47.12 per cent. of the total deaths.

55. There was a severe outbreak of small-pox in Perak, with 155 deaths; almost entirely amongst Malays.

INFECTIOUS
DISEASE.

56. As a result of the rice control, parboiled rice and undermilled rice took the place of the over-milled, highly polished Siamese rice. The result upon beri-beri cases was what had been expected. In Perak there were only 98 admissions to hospital, in Selangor 260, in Negri Sembilan 87, and in Pahang 7. The admissions in Perak of beri-beri patients had been 612 in 1919 and 891 in 1918.

BERI-BERI.

57. It has been discovered that a mild form of scurvy is prevalent amongst paupers who form the vagrant class before they enter the vagrant wards or the pauper hospitals.

SCURVY.

(iii).—CURATIVE.

58. There are in the Federated Malay States, the following medical institutions:

MEDICAL
INSTITUTIONS.

- 4 European Hospitals;
- 44 District Hospitals;
- 3 Women's Hospitals;
- 3 Leper Asyla;
- 6 Gaol Hospitals;
- 1 Quarantine Camp (for Immigrants);
- 4 Vagrant or Decrepit Wards;
- 1 Lunatic Asylum;
- 60 Out-door Dispensaries.

59. During the year 120,879 in-door patients were treated as against 99,829 in the preceding year: the death-rate however was lower. In Perak, the death-rate was 7.60 against 9.36 in 1919. For out-door patients, the figures are 275,783 in 1920 as against 241,682 in 1919; the increased figures being mainly due to increased efficiency resulting from the use of motor travelling dispensaries. Vaccinations numbered 218,320 against 136,515 in 1919. There were 835 lepers in the three asyla, and 1,124 patients in the Central Lunatic Asylum.

60. The objection to many of our out-door dispensaries is that, being in the grounds of the district hospital, they are too far from the towns to be as useful as they should be. During the year, a start was made upon the line of opening an out-door dispensary in ordinary shop premises in the centre of a town. Under the scheme, an assistant surgeon, or qualified dresser will attend to all cases, morning and afternoon, and a European medical officer will attend during certain hours to see such cases as may be kept back for him. Such a scheme makes it possible to give particular attention to cases, in their early stages, of malaria, tuberculosis, and venereal disease.

OUT-DOOR
DISPENSARIES.

(iv).—RESEARCH.

STAFF.

61. The staff of the Institute of Medical Research consists of the Director, the Bacteriologist, the Pathologist, the Assistant Pathologist and three Chemists. At the end of the year it was decided to add an Assistant Bacteriologist, another Pathologist, two students in Pathology, a Protozoologist, and three Malaria Research Officers.

DYSENTERY.

62. The Bacteriologist (Dr. W. Fletcher) was engaged during the year upon a special investigation of dysentery.

PSEUDO-CHOLERA.

63. During the year, cultures of a micro-organism isolated by Major A. Whitmore, I.M.S., in the condition known as "Rangoon Disease" have been compared with the micro-organism of pseudo-cholera in Malaya, and their identity has been established. In a case under observation at the General Hospital, Kuala Lumpur, the causative organism, *Bacillus pseudomallei* was isolated; and tests of the patient's blood serum were made against his own organism as well as against stock cultures from other sources. It has been proved that the micro-organism is related causally to the infection, and that the diseases observed in Burma and Malaya are different forms of the same infection. The probability is that the disease occurs as a natural infection in rodents, and that it is communicated to man through food infection.

XII.—EDUCATION.

EXPENDITURE.

64. The expenditure upon Education was \$1,359,169. This does not include the salaries of the Director and Assistant Director, nor the cost of erection and maintenance of school buildings.

SCHOOLS.

65. There are ten English Government schools for boys, 19 English grant-in-aid schools for boys, and 11 English grant-in-aid schools for girls. The total average enrolment was 1,603, 5,514, and 1,944, respectively. The Malay schools are all Government institutions: there are 346 boys' schools and 54 girls' schools with average enrolments of 18,699 and 1,620. The Tamil schools number 105, of which ten are Government; the remainder are aided schools. There is only one Chinese Government school. The number of Chinese schools maintained by private enterprise and subscription is approximately 180.

REGISTRATION
OF SCHOOLS
ENACTMENT.

66. During the year an Enactment was passed to provide for the registration of all schools, their managers and teachers. The aim of the Enactment was misrepresented by some and misunderstood by others, but, with the valuable assistance of the Chinese Advisory Board, all honest doubts were dispersed.

TECHNICAL
EDUCATION.

67. It is with regret that I record that nothing has yet been done in respect of technical education.

EDUCATION OF
THE MALAYS.

68. The Director writes in his Annual Report:

"The awakening of the Malay race to the advantages of education, vernacular and English, has been rapid and widespread. Education is the daily topic of the Malay press. In every State, Malays seek admission to English schools in increasing numbers, and take full advantage of the Government scholarships."

To my mind, the most striking feature of the response to the call for public subscriptions for the endowment of "Raffles College" (for which \$2,391,050 had been subscribed up to the beginning of September, 1920) was the manner in which the Malay peasants of the remote districts contributed, with real pleasure, small sums of a few dollars each. In Perak

alone, there were many thousands of these small subscriptions. Under the Government scholarship system, a clever boy of ten or twelve years from the village vernacular school may go to an English school in a town with a scholarship, which covers a seven years' course and includes free board and lodging at a hostel. Thence it is possible for him to obtain, at Kuala Kangsar Malay College, a probationership, which carries not only free board and lodging at the College, but also an allowance of \$300 per annum, and opens to him admission into the Government service under the "Malay Officers" scheme, with an expectation of promotion into the "Malayan Civil Service." Boys, who fail to obtain probationerships, have the clerical service, and other branches of the Government service open to them. But the aim of the Government is not to turn out a few well-educated youths, nor a number of less well-educated boys: rather it is to improve the bulk of the people, and to make of the son of the fisherman or the peasant a more intelligent fisherman or peasant than his father had been, and a man whose education will enable him to understand how his own lot in life fits in with the scheme of life around him.

XIII.—MUSEUMS.

69. The new appointments of Systematic Entomologist and Systematic Botanist remained unfilled. An expedition to Java by the Assistant Director, with collectors, yielded a good collection of vertebrata from the eastern, central and western portions of the island. Several new species were obtained, with much materials of great value for systematic purposes. A three weeks' visit to the Cape Rachado Light-house, Negri Sembilan, Federated Malay States, resulted in a satisfactory collection of birds, though, contrary to expectations, few migratory birds were seen. A useful collection of vertebrata and insects was made at Pulo Condore off the coast of Cochin China by a Dyak collector, who by the kind permission of Mr. W. J. F. Williamson, C.M.G., was allowed to join a collecting party sent by him to this little exposed island.

EXPEDITIONS.

70. Little botanical or ethnological work was done during the year. Volumes VIII, IX, X of the *Journal of the Federated Malay States Museums* were issued. Volume VIII contains further "Results" of the expedition to Korinchi in 1914; volume IX (in two parts) contains 22 articles on ethnography, customs, language, and history; and volume X contains (in two parts) a long article on sea-snakes by Dr. Malcolm Smith, and reports by Mr. H. N. Ridley, F.R.S., C.M.G., on botanical collections. Papers were contributed to a number of scientific journals in other countries. The new "Reference Library" of works dealing with South-East Asia received several hundred new volumes.

PUBLICATIONS.

XIV.—POSTS AND TELEGRAPHS.

71. There are 98 post offices, and 38 places at which postal business is transacted by railway station masters and others. The estimated number of articles posted and delivered is, as nearly as possible, 26 millions, being an increase of 2.8 million. (Estimated population 1,300,000.) There was an increase in the number of registered letters, parcels and cash-on-delivery packets; a decrease in postal orders issued but an increase in the number paid; and a decrease in the money orders issued and increase in the number paid. The last two items afford an indication of the trade depression. During the first half of the year there

STATISTICS.

were abnormal increases in the deposits in the Savings Bank: in all respects it was a record year; but in the last months there was an excess of withdrawals over deposits.

C.O.D. SYSTEM.

72. A cash-on-delivery system with the United Kingdom was started during the year. It is appreciated by the public, and there is a steady increase in the number of parcels.

TELEPHONES.

73. During the year, a trunk telephone line between Taiping and Ipoh, and an additional trunk line between Klang and Kuala Selangor were opened.

TELEGRAPH AND
TELEPHONE
MILEAGE.

74. On the 31st December, 1920, there were 2,504 miles of telegraph and telephone posts and 12,396 miles of overhead wire (including 9,600 miles of telephone wires). There are also $27\frac{1}{2}$ miles of underground cables containing 2,511 miles of wire, single line. These figures exclude the wires of the Railway Department; and the Federated Malay States Government wires along the railway line in Johore.

FINANCIAL.

75. The revenue of the department was \$1,066,020 in 1918, and \$1,299,321 in 1919, and \$1,064,742 in 1920. On the other hand, the expenditure in 1918 was \$1,194,386; in 1919, \$1,460,737; and in 1920, \$2,179,657. The figures given above tend to show that the department is maintained at a very great loss. Inasmuch, however, as there is no proper record of expenditure upon capital account as distinguished from expenditure upon revenue account, the figures are of little real value.

XV.—PUBLIC WORKS DEPARTMENT.

GENERAL.

76. Work throughout the year was rendered difficult by the lack of engineers, the shortage of subordinate officers, and the increased cost of labour and materials. Upon annually recurrent services about $5\frac{1}{2}$ million dollars were spent, a small saving on the estimate: but on special services, where the provision was over 23.6 millions, only 8.6 millions were spent.

HYDRAULIC.

77. The importance of river clearing and conservancy is recognized. The department is doing what it can. Until the staff is increased, it will not be able to do what it should. In all matters connected with irrigation and drainage, there have, for the same reason, been delays and difficulties.

ROADS.

78. In each of the four States, a number of short lengths of new road were constructed. Though the total is appreciable, there is no item that calls for special comment. Over $\frac{1}{2}$ million dollars were spent on widening and re-aligning existing roads. There are 2,394 miles of metalled cart-roads, 166 miles of unmetalled cart-roads, and 1,826 miles of bridle-roads and paths. Their maintenance was satisfactory.

BUILDINGS.

79. The expenditure upon "special services" in respect of works and buildings was \$5,621,625. There was a great number of more or less unimportant items. The most important buildings were the new European and General Hospitals at Kuala Lumpur, extensions to Tanjong Rambutan, Lunatic Asylum; new English Schools, Kuala Lumpur and Bentong; Teachers' Training School, Tanjong Malim; Quarantine Camp, Port Swettenham; and a new Residency and Government Offices at Kuala Lipis.

ANTI-MALARIAL
WORKS.

80. At the end of the year 6,200 acres were maintained under anti-malarial drainage systems at a cost of \$17,958. Upon the construction of masonry drains, subsoil drains, and open earth channels, \$56,607 was spent. The work done was confined to Kuala Lumpur, Port Swettenham and Seremban.

XVI.—RAILWAYS.

81. The receipts from all sources were \$17,316,533, an increase of 15.8 per cent., whilst revenue expenditure on all accounts amounted to \$16,753,348, an increase of 48.4 per cent. There was thus a net profit on the year's working of \$563,185, compared with \$3,310,446 in 1919. This represented 0.39 per cent. on the Capital Expenditure against 2.67 per cent. last year. The decrease is due to increases in rates of pay and allowances, the increased cost of all material, and the local trade depression. Terminal charges for goods train traffic and rates for parcels and perishable traffic were increased in July and November, respectively. Passenger fares were reduced at the beginning of the year from 50 per cent. to 25 per cent. above pre-war rates.

WORKING.

82. The number of passengers carried was 13,401,532, being an increase of 31.7 per cent., and passenger receipts increased by over 1½ million dollars (20.9 per cent.) despite the reduction in fares. There were no fatal accidents to passengers, and only 19 cases of personal injury. Notwithstanding the trade depression, but doubtless connected with the increase in wages throughout the country, there is a steady migration from the third to the second class saloon, and still more so from the second to the first. In last year's annual report, the following figures of the percentage of the increase of the following classes were given: First class, 33.4 per cent.; second class, 30.5 per cent.; third class, 11.4 per cent. This year the corresponding figures are 56.1 per cent., 37.5 per cent., and 9.9 per cent. Though passenger traffic between the Federated Malay States and Siam continued to increase, goods traffic fell off as a result of the suspension of the export of rice from Siam.

TRAFFIC.

The total mileage of running lines at the end of the year was 1,014 miles: this includes the Johore leased line, but excludes sidings. There are 222 permanent stations exclusive of "halts", or flag stations. Ten stations were opened during the year. There was no serious interruption of traffic during the year. Running costs per engine mile have increased from 46 cents for 1919 to 64 cents. There was again a loss on the steamer and ferry services, and also under the heading of docks, harbours and wharves. Twenty new locomotives (16 from North British Locomotive Works and 4 from the United States) arrived during the year. Orders for 40 more have been placed (20 from England and 20 from the United States). There are 204 locomotives on the open lines, and 22 on construction.

83. The total capital expenditure up to the end of the year is \$144,134,625. Of the current year's expenditure of roughly 20.4 million dollars, 6.3 millions was on the construction of new lines, 7.8 millions on widenings and additions (including Prai wharves and Johore causeway) and 3.5 millions for new rolling stock.

EXPENDITURE.

84. The Pahang-Kelantan section now under construction is 155 miles in length, and extends from Kuala Lipis to Tanah Merah. Of this distance, 108 miles are in Kelantan. In the Pahang section the permanent way has been laid for 18½ miles from Kuala Lipis, and 10 miles of it are ballasted. In the Kelantan section, the permanent way has been laid as far as Kuala Nal (15 miles from Tanah Merah) and the earth has been completed for another ten miles. The short section of railway (11¼ miles)

CONSTRUCTION.

which runs from Pasir Mas to Rantau Panjang in order to connect, at the Golok River, with the Royal Siamese Railway system was opened to traffic on the 1st September, 1920. A temporary wooden bridge has been erected over the Golok, and the rails are now linked up.

PRAI WHARVES.

85. Good progress has been made by Messrs. Topham, Jones and Railton with the construction of the concrete pier at Prai. Out of 323 concrete cylinders, 213 have been sunk. They are founded in a layer of coarse sand at about 53 feet below low water level. About 850 feet of the pier will be open to traffic at the end of the year. The "southern reclamation" received 711,000 cubic yards of dredgings. This figure represents solid measurement calculated from the original measurement, and excludes shrinkage during construction. Three of the nine enclosures into which the southern reclamation is divided have been filled up to their full height. Pumping continues in the other six. The continued settlement of the bund into the soft mud of the foreshore causes delay in the completion of this reclamation. The bunds enclosing the future northern reclamation at Bagan Luar are nearing completion, and preparations are in hand for pumping into this area. Over 50 Europeans and 2,000 Asiatics are employed on the works.

JOHORE CAUSEWAY.

86. The same contractors have made good progress with the Johore Causeway. The construction of the lock is well advanced and the deposit of rubble (conveyed, for the most part, from Pulau Ubin quarry by hopper barges) is continued regularly.

MISCELLANEOUS
UNDERTAKINGS.

87. Work on the Penang Hills Railways was put in hand again after an interval of six years. The permanent works were found to be practically undamaged. Progress was made with doubling the line in Singapore Island, the Port Swettenham line and the Sungei Besi line; with the new railway station at Fort Canning, Singapore, and the Teluk Ayer (Singapore) godowns; with surveys for the proposed Kuala Krau-Kuantan line, the proposed Gemas-Malacca line, the proposed Kuala Kubu deviation, and the water supply scheme for Prai.

XVII.—GENERAL.

SUMMARY.

88. The year which had opened so brightly with rubber at a very remunerative price, with tin at record figures, and with the Government revenue and treasury balances in a highly satisfactory position, closed amidst gloom and depression, with rubber at a price below the average cost of production, with tin being bought by the Government, and with consequent dislocation of the Government finances. Though the present situation is acute, the trouble is only temporary. The Government's financial position is strong; its assets greatly exceed its liabilities; its normal revenue is in excess of its expenditure upon revenue account; and a loan floated in London would enable us to provide for our new railways, roads and public buildings from a loan account, instead of, as in the past, from current revenue. In regard to rubber and tin, we are strong in the knowledge that the world cannot get on without our supplies. The trouble is shown in the earlier paragraphs to be that the world's power of consumption has fallen away owing to labour unrest, and other world-wide troubles. As soon as the world regains its lost power, it must come to us for our rubber and tin, and it must pay us a price which remunerates us for complying with its requirements.

89. It is a matter of grave concern to the Government that so little interest has in the past been taken in industries in the Federated Malay States. The reason has undoubtedly been that the lure of the profits to be made in rubber and tin has turned all thoughts from any other enterprise in this country. The present temporary slump will be of permanent benefit to the country if it turns thoughts into new directions. In paragraphs 27 and 33 of this report, I have referred to a few instances of recent enterprise in local industries. I wish that I were able to record some instance of enterprise in the manufacture of rubber. There seems to be no reason why Malaya should not supply, not only its own requirements in the way of manufactured rubber, but those of its near neighbours, India, Siam, and China. Nor does there seem to be any valid reason why all our tin should be exported to other countries for their tin-plate industries. The Far East trade of the world flows past, to and fro, through Singapore and Penang; it carries off our tin and rubber; but no local industry or enterprise has ever yet sought to bring more of that trade into British Malaya.

90. Rice Control continued throughout the year. The Controller bought rice in foreign countries, and imported it: he also bought the output of the local rice-mills. At the beginning of the year, he sold only to wholesale dealers in Singapore and Penang. Later in the year, he brought the rice by steamers and rail to various depôts in the Federated Malay States, and thence supplied the local wholesale dealers. As he bore all costs of transport to the depôt, it was possible for him to fix a flat rate for supplies to wholesalers at all places on a port or railway station. The wholesaler was allowed a specified margin of profit in respect of his sales to retailers, who in their turn were allowed a specified margin of profit in respect of sales to the public. All dealers, wholesale and retail, were registered, and obtained their supplies upon an elaborate system of permits, designed firstly in order to ensure a fair distribution of rice throughout the country, and secondly to keep down the consumption as much as possible. In some places there was scrambling and jostling in the queues outside the retail shops, and in consequence a system of household rationing was introduced for a time in these places.

Over the whole year, the average cost of rice to the Control was \$1.28 per gantang (8 gantangs=1 bushel). The price at which the Control sold to the wholesale dealers was 76½ cents per gantang on the 1st January, 1921. This price was raised to \$1.03 on the 29th January, and again to \$1.26 on the 18th May. It was reduced to 99 cents on the 13th September, and stayed at that figure for the remainder of the year. This subsidy to the rice-eating population has cost the Federated Malay States, over the whole period during which it was in force, about \$20,000,000. The Control was forced upon the country by necessity. Without it, the country would have failed to obtain rice, and the consequences would have been terrible. The Control purposely undertook a loss in order to keep down the cost of living of the working classes, and their wages.

91. Concurrently with Rice Control, every effort was made to stimulate the production not only of rice but of all substitutes for it—especially millet, sweet potatoes, Indian corn, tapioca.

SANATORIUM,
GUNONG TAHAN.

92. It has been decided that before further action is taken to build a sanatorium on Gunong Tahan, observations on the weather there are to be carried out throughout at least two years. Four naval petty officers have been engaged as observers, and are now undergoing a course of training at the Meteorological Office, Kensington. Depôts have been built at Kuala Tahan (220 feet elevation; 20 miles from the plateau in an air-line, and from four to five days' journey by time). Kuala Teku (550 feet elevation; six miles in an air-line, and two days' journey by time) and Wray's Camp (3,300 feet; $2\frac{1}{2}$ miles and a day's journey); and three huts, out of four, have been built on the plateau, which is at a height of 5,400 feet. The summit of Gunong Tahan is 7,186 feet high. The three depôts have been supplied with stores of provisions; and Dyak collectors of the Museums Department are temporarily acting as storekeepers. The work was carried out, under the supervision of the Museums Department, under great difficulties. Before the foot of the mountain is reached, there is a long journey by water up the rocky bed of a small mountain torrent. Dug-out canoes were used, and were quickly worn out, or lost in the rapids. Difficulties were enhanced, at first by a long drought and later by floods.

SANATORIUM,
FRASER'S
HILL.

93. Active progress was made upon the sanatorium at Fraser's Hill (about 4,000 feet elevation) on the mountain range between Selangor and Pahang. In August, the motoring road, five miles long, which is to connect it with "The Gap," at the summit of the main trunk road over the mountain, was put in hand; and work is being carried on energetically. There is room for some forty houses in the vicinity of the "Valley" which is the distinguishing feature of the place. Sites for the houses are being cleared, and a circular road, some five miles long, has been traced to connect all the sites. A club and a hotel will be some of the attractions of the place, which is only 63 miles by road from Kuala Lumpur.

FAMINE RELIEF
FUND, CHINA.

94. During the year, the Government made a donation of \$125,000 to the fund for the relief of the famine in China.

95. In an appendix to this report, I give the usual return of Revenue, Expenditure, Trade, and Population.

96. His Excellency Sir Laurence Nunns Guillemard, K.C.B., assumed duty as High Commissioner for the Malay States on the 3rd February, 1920, and, accompanied by Lady Guillemard, made a tour of the Federated Malay States in March and April. Everywhere His Excellency received a most hearty welcome from all nationalities and all classes.

97. The Honourable Sir E. L. Brockman, K.C.M.G., Chief Secretary to the Government, Federated Malay States, retired on pension on the 12th September, 1920. His appointment dated from the 2nd September, 1911, and he had held the appointments of British Resident in Pahang and in Negri Sembilan, and of Colonial Secretary in the Straits Settlements. He held the appointment for nine successful and strenuous years, and the country is greatly indebted to him for all that he has done for its welfare and benefit.

98. The Honourable Mr. J. R. O. Aldworth, British Resident, Negri Sembilan, retired on pension on the 22nd May, 1920, and the Honourable Mr. A. H. Lemon, C.M.G., British Resident, Selangor, proceeded on leave prior to pension on the 13th June, 1920. Both officers had served for over thirty years in British Malaya. Both were keenly interested in the progress of the Malays, and the services of both were of great value to the country.

99. Upon the retirement of Sir E. L. Brockman, I was appointed Chief Secretary to Government, Federated Malay States. During the interval between Sir Edward's departure and my assumption of duty, first Mr. F. S. James, C.M.G. (Colonial Secretary, Straits Settlements), and later Mr. A. B. Voules held the acting appointment. I take this opportunity to tender my thanks to both.

KUALA LUMPUR,
22nd May, 1921.

W. GEORGE MAXWELL,
Chief Secretary to Government,
Federated Malay States.

FEDERATED MALAY STATES.

GENERAL RETURN OF REVENUE, EXPENDITURE, TRADE, AND POPULATION.

Year.	Revenue.	Expenditure.	Trade.		Duty on Tin.	Duty on Rubber.	Land Revenue and Land Sales.	Railway Receipts.	Population.	Year.
			Imports.	Exports.						
	\$	\$	\$	\$	\$	\$	\$	\$		
1889	5,013,000	4,091,078	15,653,456	19,720,689	1,750,008	...	190,538	359,025	...	1889
1890	4,840,065	5,237,275	15,443,809	17,602,093	1,609,401	...	166,054	406,032	...	1890
1891	4,572,310	5,554,800	14,889,942	18,495,554	1,573,441	...	199,680	414,889	424,218 §	1891
1892	5,347,189	5,883,407	19,161,159	22,662,359	2,097,274	...	300,680	537,111	...	1892
1893	6,413,134	6,797,538	21,896,117	27,373,760	2,602,380	...	347,600	723,934	...	1893
1894	7,511,809	7,162,396	24,499,615	32,703,147	3,238,000	...	457,262	986,617	...	1894
1895	8,481,007	7,582,553	22,653,271	31,622,805	3,379,813	...	468,239	1,294,390	...	1895
1896	8,434,083	8,598,147	21,148,895	28,395,855	3,126,974	...	511,237	1,344,994	...	1896
1897	8,296,687	8,795,313	25,000,682	31,148,340	2,716,263	...	636,054	1,294,139	...	1897
1898	9,364,467	11,110,042	27,116,446	35,241,003	3,210,699	...	636,927	1,394,720	...	1898
1899	13,486,410	11,499,478	33,765,073	54,895,139	6,181,542	...	639,899	1,722,475	...	1899
1900	15,609,807	12,728,930	38,402,581	60,361,045	7,050,382	...	712,898	2,254,742	...	1900
1901	17,541,507	17,273,158	39,524,603	63,107,177	6,968,183	...	626,114	2,377,040	678,595 §	1901
1902	20,550,543	15,986,247	45,757,240	71,350,243	8,438,775	...	661,668	2,856,640	...	1902
1903	22,672,567	16,219,872	47,790,059	80,253,944	9,590,505	...	721,304	3,608,054	...	1903
1904	22,255,269	19,318,768	46,955,742	77,620,084	8,814,688	...	801,959	3,605,029	...	1904
1905	23,964,593	20,750,395	50,575,455	80,057,654	9,249,627	...	887,593	3,940,599	...	1905
1906	27,223,476	18,899,425	50,926,606	80,832,325	10,036,798	50,023	1,437,753	4,564,100	...	1906
1907	28,793,745	20,225,993	52,542,277	80,593,196	9,395,825	97,752	1,701,682	5,200,911	...	1907
1908	24,623,325	25,874,573	48,171,243	65,599,933	7,285,864	113,981	1,598,713	5,066,153	...	1908
1909	25,246,863	23,633,851	46,194,598	76,273,438	7,155,124	360,055	1,623,876	5,188,111	...	1909
1910	26,553,018	23,598,610	53,255,151	102,851,990	7,162,026	962,973	2,201,469	5,868,507	...	1910
1911	35,056,544	25,202,749	66,532,039	116,280,927	8,818,764	999,207	2,290,962	7,058,689	1,036,999 †	1911
1912	42,647,687	30,990,487	76,122,679	154,974,195	10,850,121	1,576,224	2,875,414	8,421,016	1,109,017 †	1912
1913	44,332,711	47,287,581	86,409,157	148,669,498	10,729,888*	1,395,923	2,790,451*	9,469,446*	1,117,625 †	1913
1914	37,309,943	55,010,037	72,140,005	122,962,929	7,046,869	1,334,245	2,562,436	9,133,911	...	1914
1915	40,774,984	42,838,631	60,015,935	161,838,118	7,235,086	2,401,914	2,597,836	9,187,512	1,172,336 †	1915
1916	51,121,856	31,966,581	69,621,113	219,943,686	7,903,785	3,851,815	3,068,766	11,616,696	...	1916
1917	65,553,186	40,878,746	73,261,725	271,485,389	9,331,288	4,914,781	3,308,464	13,189,829	1,244,018 †	1917
1918	68,448,862	45,286,910	74,750,746	223,066,282	13,141,841	2,254,556	3,657,454	13,106,413	1,279,859 †	1918
1919	72,135,075	70,676,961	118,854,965	279,135,105	9,944,177	4,883,123	3,533,829	14,957,460	1,315,700 †	1919
1920	72,277,146	100,433,471	170,522,123	288,715,698	12,203,531	4,443,100	4,004,095	17,316,533	1,300,000 †	1920

NOTE.—The total Revenue and the total Expenditure of Perak, Selangor and Negri Sembilan in 1875 were, respectively, \$409,394 and \$436,872. Figures for Pahang first appear in 1889. Federation dates from 1st July, 1896. § A census of the population was taken in 1891, in 1901 and in 1911. The population of Perak in 1879 was estimated at 81,084, and in 1889 at 194,801; that of Selangor in 1884 at 46,568 and in 1887 at 97,106. No figures for the other States are given prior to 1891. † Estimated. ‡ According to 1911 census. * As now corrected. || Excluding bullion and specie.

PRINTED AT THE
FEDERATED MALAY STATES GOVERNMENT PRESS,
KUALA LUMPUR.