

## FEDERATED MALAY STATES.

### REPORT ON THE FISHERIES DEPARTMENT FOR THE YEAR 1913.

1. The total revenue for the three Western States derived from fishing and fishing-boat licences for the year 1913 amounted to \$27,195.26, an increase of \$866.46 over the figures for 1912 and \$902.56 over 1911, being the largest revenue yet collected.

There were increases both in Perak and Selangor but a trivial decrease in Negri Sembilan, where the industry is of quite insignificant proportions.

2. The details for each State are as follows :

State.	Revenue.			Approximate number of fishermen.			Taxation per head.		
	1911.	1912.	1913.	1911.	1912.	1913.	1911.	1912.	1913.
	\$ c.	\$ c.	\$ c.				\$ c.	\$ c.	\$ c.
Perak ... ..	15,744 00	15,343 00	16,191 50	2,155	2,051	2,196	7 30	7 48	7 37
Selangor ... ..	10,183 75	10,724 25	10,766 75	1,645	1,716	1,702	6 19	6 30	6 33
Negri Sembilan ...	364 95	261 55	237 01	85	70	70	4 30	3 74	3 28
Total ...	26,292 70	26,328 80	27,195 26	3,885	3,837	3,968	6 77	6 86	6 85

It will be seen that though the details vary slightly the rate of taxation of the individual fisherman remains remarkably constant.

3. For the fisherman the year appears to have been a fairly prosperous one and catches were, on the whole, above the average. At various times complaints were prevalent in Taiping and Kuala Lumpur in the matter of scarcity of supplies and high prices, but this has probably been due in part to a greater proportion of the catch being absorbed in the coastal districts and not reaching the interior and to the rapacity of the middleman. During the year 41,734 pikuls of fresh fish were despatched from Port Swettenham and 22,441 from Telok Anson against 32,799 and 16,775 in 1912, while the total quantity passing over the Federated Malay States Railway system, excluding the Kuala Selangor and Port Dickson branches for which no statistics are available, was 86,031 pikuls against 74,532 pikuls in 1912.

It is evident therefore that the supply is increasing at least as fast as the consuming population and that the increase in price is not influenced by this factor.

4. In 1912 it was decided that the department should take over direct control of the Fisheries which had hitherto been exercised by officers of the Customs Department, and the Estimates for 1913 provided for a European Inspector of Fisheries with technical training, a number of Malay Assistant Inspectors, the requisite office staff, and for a specially built launch for inspection work and for scientific investigation.

Owing principally to the difficulty in obtaining an Inspector of Fisheries from England the scheme provided for was only partly brought into operation during the year, but by December the various Assistant Inspectors of Fisheries had been appointed and stationed at suitable localities along the coast. The total expenditure on Personal Emoluments was \$2,737.42 out of \$12,931 provided.

5. Of \$10,450 provided for Other Charges, Annually Recurrent, only \$1,870.08 was spent, mainly owing to the fact that no launch was available for the department during the greater part of the year and consequently no expenses were incurred for fuel and stores.

Under Special Expenditure \$31,200 was voted for a launch and for station boats. The plans for the former were under consideration at the end of the year and a steel boat was ordered at the commencement of 1914 to be built by the Tanjong Pagar Dock Board to the plans and under the superintendence of the Surveyor-General of Ships, Straits Settlements, at a total cost of \$36,500.

6. Two teak whale-boats were built by the Harbour Department, Selangor, for use at the two more exposed stations, while the more sheltered ones were supplied with Chinese or Malay boats, the total cost amounting to \$1,182.

7. In April, Mr. Gobée, Inspector of Fisheries, Netherlands India, visited the Fisheries of the Federated Malay States and the Straits Settlements on the instructions of his Government, who are concerned with the depletion that is becoming manifest on the Sumatran side of the Straits of Malacca. His visit, which occurred during the Easter holidays, was somewhat inopportune, but I was able to show him the fishing village at Pulau Ketam and some of the fixed stakes on the Kuala Selangor coast and to explain to him the rules regulating the industry in the Federated Malay States.

8. A commencement was made with the collection of detailed and accurate statistics regarding the amounts earned by certain classes of fishermen. Investigations were carried on at Kuala Krau over a period of two complete months as to the earnings of the large seine nets worked respectively by Malay and Chinese fishermen.

9. An employé of the department went out with each boat on each visit to the fishing grounds and on its return saw the fish sorted, weighed and sold and recorded the data on the spot.

10. The Malay fishing-boat, costing \$40 with nets of the value of \$70 and with a crew of four men, fished on 51 out of 62 days, the catches, which need not be particularized here, realizing \$203.57. After allowing for depreciation and repairs on the boat at the rate of 50 per cent. and the net at 75 per cent. with interest on the capital employed at 25 per cent., the wages earned amount to 77 cents per man over the whole period, or 91.7 cents per man per day if only the working days are taken into account.

11. In the case of the Chinese boat the value of the boat was \$45 and of the nets \$115; fishing was carried on on 50 out of 62 days and the catch realized \$203.16, yielding a wage to the men of 73.3 cents per man per day over the whole period, or 89.2 cents per working day.

12. The Director of Museums was in charge of the department throughout the year.

#### STATE OF PERAK.

13. The total revenue realized from fishing and fishing-boat licences was \$16,191.50 against an estimate of \$16,050. The revenue in 1912 was \$15,343; in 1911, \$15,744; and in 1910, \$13,324.25. The present figures show an increase of \$446.50 or 2.7 per cent. over those for 1911, the highest hitherto recorded.

14. The increase is general in the different methods of fishing, but curiously enough the number of fishing-boats registered shows a decrease from 2,244 in 1912 to 2,088 in the present year. The figures for 1911 and 1910 were 2,060 and 2,038, respectively.

*Ambai* and *gombang*, closely related forms of fixed purse nets, are the main method of fishing in Perak, especially on the Matang coast. For purposes of convenience other types of inshore stakes are included with them, but being unimportant numerically but do not materially affect the general accuracy of the figures. The total for 1913 was 3,081 against 3,043, 3,133 and 2,268 in 1912, 1911 and 1910. Large seine nets, chiefly used on the Krian coast, numbered 911 against 897 in 1912, 978 in 1911, and 796 in 1910. Drift nets increased materially, 1,489 being registered in 1913 against 1,394 in 1912 and 1,308 in 1911.

The larger outshore stakes, in which are included *jermal* and *kelong*, rose to 205 against 153 in 1912, 134 in 1911, and 216 in 1910. The increase is more apparent than real and is due to the fact that a number of *jermal* in the Larut estuary which had hitherto escaped notice were made to take out licences in the year under review.

*Rawei*, or shark-fishing lines, rose again to 150, the figures for 1912, 1911 and 1910 having been 112, 127 and 150.

Dealing with the revenue by districts, slight increases are manifest in all. That in Lower Perak increased from \$1,558.50 in 1911, \$1,835.50 in 1912 to \$2,165.00 in 1913; that of Matang rose from \$8,159.75 in 1911, \$8,211.50 in 1912 to \$8,375.25 in 1913; while for Krian the figures \$6,025.75 for 1911, \$5,296 for 1912, and \$5,651.25 for 1913.

15. The exports from the State amounted to \$64,332 in value, the figures for the four previous years being \$26,484, \$32,135, \$48,101 and \$54,250. Blachan amounted to \$10,940 against \$8,466 in 1912, \$8,676 in 1911, and \$7,537 in 1910. Salt fish apparently increased from \$10,278 in 1912 to \$39,472 in 1913, the figures for 1910 and 1911 being \$35,623 and \$17,366. The export of fresh fish, though small in amount, shows a continuous increase from \$4,130 in 1911, \$6,101 in 1912 to \$12,093 in 1913. A good deal of this is rice-field fish exported from Krian to Penang.

For these details I am dependent on the quarterly returns of exports and imports as published in the *Gazette*. I am inclined to doubt if the volume of trade really exhibits the extreme variations evidenced by the above figures, the differences probably residing largely in the methods of obtaining and tabulating the statistics. Detailed quarterly returns, as extracted from the *Gazette*, are given in appendix B.

16. The imports continue, though not to the same extent, the increases shown in 1912 and 1911. The total value was \$621,065 against \$593,339 in 1912, \$490,906 in 1911, and 339,221 in 1909. The great bulk of this amount is of course accounted for by salt and dried fish, valued at \$496,549 in 1913 against \$492,626 in 1912. Fresh fish, mainly from the Dindings, again rose in value from \$18,000 in 1910, \$61,577 in 1911, \$80,889 in 1912 to \$106,885 in 1913, an increase of 600 per cent. in four years. Other products, consisting of fish-maws, sharks' fins and a little *blachan*, are insignificant in amount. Detailed returns are given in appendix C.

Forty-three thousand and sixty-eight pikuls of fresh fish were consigned by railway from stations in Perak to other places in the same State, against 41,203 in 1912, 48,167 in 1911, and 31,711 in 1910. The small increase seems largely due to much less use being made of the railway as a means of transit from the coast to Taiping, a large proportion of the fish supply for that town reaching it by gharry and bullock-cart from Telok Kertang. The imports to the Kinta district *via* Telok Anson have increased from 11,470 pikuls in 1911 to 16,675 in 1912 and 22,441 in 1913. Those from Port Weld to Taiping were 8,547 in 1912 and 22,441 in 1913. Nineteen hundred and eleven was an exceptionally good year in Krian and large quantities of *ikan terubok* were consigned from that district to Kinta.

The amount of fresh fish imported from Penang and the Province by rail continues small being 1,057 pikuls for 1913 against 304 in 1912, 341 in 1911, and 943 in 1910. There are no exact figures available for the trade in the reverse direction, but a good deal goes out by the daily launch from Kuala Kurau.

17. During the year the owners of certain *jermals* and *kelongs* situated in exposed situations on the coasts of Matang and Lower Perak pointed out that there were certain mechanical difficulties in strictly observing the existing rule as to interstices in the screens and rotan "daun" employed. By administrative order the fishing population in certain specified areas were therefore permitted to reduce the interstice in their traps from the legal one inch to quarter inch.

#### DISTRICT OF KRIAN.

18. Ishak bin Ahmad, formerly a clerk in the Land Office, Krian, was appointed Assistant Inspector of Fisheries, Krian, on one year's probation, and took up his duties in April, 1913. He was stationed at Kuala Kurau, and provided with a suitable Chinese sampan and three boatmen. During the year he effected a considerable diminution in illegal and unlicensed fishing though the fishing population on this coast, with the exception of that living in one or two somewhat inaccessible bagans, is now on the whole quite law-abiding.

19. The revenue rose from \$5,296 in 1912 to \$5,651.25 in 1913, approaching the bumper year 1911 when \$6,025.75 was collected. All methods of fishing showed increases though individually small in amount: drift nets rose from 260 to 265; seine nets from 528 to 550; and small seine nets from 21 to 25; offshore stakes show no material change, 92 being registered against 89 in 1912, but *ambai*, *gombang* and inshore stakes increased from 865 to 906, and *rawei* from 38 to 49. Fishing-boats decreased in number from 696 to 589, which is possibly due to the fact that fishermen using methods for which no fishing licence is required had their boats classed as passenger and not as fishing-boats.

20. The average number of fishermen employed in the district in 1913 rose slightly to 852, the numbers employed in previous years being 809 in 1912, 926 in 1911, 813 in 1910, and 614 in 1909. The taxation per head shows a slight but progressive increase due to the greater popularity of the larger seine nets and *ambai*, which are more heavily taxed than the single-handed drift nets; the amount per head works out at \$6.63 for 1913 against \$6.54 in 1912, \$6.50 in 1911, \$6.10 in 1910, \$5.75 in 1909, and \$5.18 in 1908.

21. Fifteen thousand two hundred and forty-two pikuls of fresh fish were consigned from railway stations in the district to other places in Perak during the year; the figures for previous years are 14,123 for 1912, 28,171 for 1911, 12,720 for 1910, 8,598 for 1909, and 8,171 for 1908. As noted elsewhere the figures for 1911 are altogether abnormal, being due to very large catches of a migratory herring which only visits the Krian coast at uncertain and infrequent intervals.

22. During the year, as noted in a previous paragraph, careful and detailed statistics were compiled with a view to ascertaining the catch of the large seine nets used in the district and the yield to the fishermen. A boat manned by Malays and another manned by Chinamen were selected and the results obtained were as follows: on 50 working days the Chinese boat secured catches which realized a total amount of \$203.16. The catch was made up of 1,844½ katis of prawns, sold at an average price of 7.18 cents per kati; 234½ katis of second class fish, fetching 8.07 cents per kati; and 2,913½ katis of third class fish, fetching 1.06 cents per kati. Second class fish consists of *ikan semilang*, *ikan seblak* or *lidah* (soles) and *ikan belanak* (small mullet), while third class fish comprises, *ikan gelama*, *kasai*, *kedra*, *duri*, *pedukang*, *pari* and crabs.

The Malay boat, while securing very similar financial results, had catches of rather different character. The total earnings for 51 working days were \$203.57, while the catches

consisted of 749½ katis of prawns, sold at 6.36 cents per kati; 13½ katis of first class fish, yielding 15.66 cents per kati; 1,451 katis of second class fish, selling at 6.05 cents; and 2,576 katis of third class fish, fetching 2.57 per kati.

It will be seen that, though the actual monetary yield to the fishermen as detailed in para. 10 of this report forms quite an adequate wage, the prices realized for produce are small and less than half what is exacted from the consumer, leaving large profits to the advancers, middlemen and retailers.

It is hoped in future years to obtain similar detailed analyses of the catch and monetary yields from other methods of fishing on the Perak coast.

#### DISTRICT OF MATANG.

23. Zainudin bin Abas, who had received his education at the Malay Residential College, Kuala Kangsar, and had served as a Sanitary Inspector in Kinta, was appointed Assistant Inspector of Fisheries, Matang, on six months' probation, and took up his duties on 20th September, 1913. He was provided with a Chinese sampan and three boatmen, and was stationed at Port Weld.

24. The revenue collected in the district for the year 1913 was \$8,375.25, the largest hitherto secured, against \$8,211.50 in 1912, \$8,159.75 in 1911, \$6,936.75 in 1910, and \$6,621.25 in 1909.

25. There was a falling off in seine nets from 333 to 295 and in inshore stakes from 1,944 to 1,916; the latter decrease being due to the greater strictness exercised in enforcing the provisions of the law with regard to the greater strictness screens of *blats* set up in sheltered creeks and channels. Drift nets increased from 899 to 944 and *rawei* from 54 to 75, while 32 licences were issued to *jermals* in the Kuala Larut estuary, which had hitherto evaded the payment of fees. The number of boat licences was 625 against 630 in 1912.

26. The average number of fishermen in 1913 is estimated at 1,043 against 1,014 in 1912, 987 in 1911, 858 in 1910, 817 in 1909, and 779 in 1908, and the average taxation per head at \$8.03 in 1913, \$8.10 in 1912, \$8.26 in 1911, \$8.09 in 1910, and \$8.10 in 1909, the figures being remarkably constant.

27. The amount of fish sent by rail to Taiping from Port Weld has fallen off considerably, the amount for 1913 being 5,355 pikuls against 10,304 in 1912, 8,547 in 1911, 8,927 in 1910, and 10,874 in 1909. More and more is being sent annually by roads *via* Telok Kertang, and consumed in the villages and estates along the Trong road.

28. The exports of fisheries products, mainly of fish-refuse and very low grade fish from Pasir Itam to Province Wellesley and Penang, were probably about \$30,000 in value though the available figures are very approximate.

#### DISTRICT OF LOWER PERAK.

29. Harun bin Ahmad, formerly an Out-door Officer, Grade I, in the Customs Department, was appointed Assistant Inspector of Fisheries, Lower Perak, and took up his duties on 17th July, 1913. He was provided with a Malay sailing boat and a crew of three boatmen and stationed at Bagan Datoh.

30. The conditions in the district continue to steadily improve and there is a continuous decrease in the amount of illegal and unlicensed fishing accompanied by a slight increase in revenue. The total revenue for 1913 was \$2,165 against \$1,835.50 for 1912, \$1,558.50 for 1911, \$1,421.50 for 1910, and \$1,799 for 1909.

31. All methods of fishing show slight increases in 1913; drift nets rose from 235 to 280, seine nets from 36 to 66, outshore stakes from 64 to 81, inshore stakes from 234 to 259, and *rawei* from 29 to 35. Boat licences decreased slightly, the number issued being 874 against 918 in 1912, 698 in 1911, and 855 in 1910.

32. The issue of oyster licences for the beds opposite Kota Stia appears to have been discontinued.

33. The number of men actively engaged in fishing exhibits a material increase, the estimated number for 1913 being 298 against 228 in 1912, 247 in 1911, and 235 in 1910. The taxation per head works out at \$7.26 against \$8.05 in 1912, \$6.31 in 1911, and \$6.05 in 1910.

34. Owing to severe storms in the latter part of the year much loss was caused to the owners of *jermal*, *kelong* and *blat* by the destruction of their traps.

35. Fresh fish sent by train from Telok Anson to Kinta amounted to 22,442 pikuls against 16,775 pikuls in 1912, 11,470 in 1911, 10,064 in 1910, 14,493 in 1909, and 14,804 in 1908. The increase is satisfactory, especially when it is considered that a much greater amount is now consumed locally than was formerly the case.

## STATE OF SELANGOR.

37. The revenue from fishing-boat and fishing licences amounted to \$10,766.75 in 1913 against \$10,724.25 in 1912, \$10,183.75 in 1911, \$10,279 in 1910, and \$11,374.75 in 1909. The figures are remarkably constant though as a matter of fact the industry has slightly increased, a great proportion of men fishing for the inland market with *jaring* or drift nets, which are less heavily taxed than other forms of fishing.

38. The number of fishermen actively engaged may be estimated at 1,702 against 1,716 in 1912, 1,645 in 1911, 1,756 in 1910; and the taxation per head at \$6.33 against \$6.30 in 1912, \$6.19 in 1911, and \$5.85 in 1910, considerably less than the rate ruling in Perak.

39. The value of fisheries products exported from the State amounted to \$46,497 against \$56,304 in 1912; of this amount blachan accounted for \$21,590 against \$25,404 in 1912, and salt and dried fish for \$16,210 against \$21,328 in 1912. There is still a good deal of illicit blachan fishing at Pulau Ketam and other places in Klang, and a certain though not a very considerable amount of exports from the Bernam river probably evades payment of the proper export duty. A rigid collection would however cost more than the additional revenue secured, and would also by worrying the Chinese fishermen materially damage the industry as a whole.

Fishmaws to the value of \$7,137 were exported against \$9,071 in 1912.

40. The value of the fisheries products imported was practically the same as in 1912, amounting to \$520,585 against \$508,359 in that year. Salt and dried fish was \$481,647 in value against \$481,600, the total increase being accounted for by the value of fresh fish amounting to \$27,526 against \$17,366 in 1912.

41. The railway carried 41,734 pikuls of fresh fish from Port Swettenham, against 45,283 in 1912, 39,451 in 1911, and 39,240 in 1910. Now that the line is open to Kuala Selangor, a considerable quantity of fresh fish will probably reach the inland districts of the State from the large fishing stakes off Jeram and Kapar, which are increasing in number. No estimate can at present be made of the amount derived from this source.

## DISTRICT OF KUALA SELANGOR.

42. Mohamed Leppi, a Kuala Langat Malay, employed in the Government Factory, Kuala Lumpur, was appointed Assistant Inspector of Fisheries, Kuala Selangor, on eighteen months' probation, with effect from 1st February, 1913. He was stationed at Sungei Tengah on the Bernam river, and provided with a large whale-boat and a crew of four boatmen.

43. The Kuala Selangor fisheries showed a slight decline on the results for 1912 due apparently to a migration of certain of the fishermen to Klang and Lower Perak. The total revenue collected was \$7,473.50 against \$7,558.50 in 1912, \$7,110.75 in 1911, \$7,234.50 in 1910, and \$8,428 in 1909.

The decrease was entirely in drift nets, which diminished in number from 1,107 to 912; outshore stakes which show a decrease of 19, and *rawei*, which fell from 77 to 62. These decreases were largely counterbalanced by increases in large nets from 240 to 280, small seine nets from 331 to 335, and inshore stakes and *ambai* from 1,127 to 1,190. The decrease in *rawei* is in the main due to the fact this method of fishing is now being largely abandoned in the neighbourhood of the Bernam estuary for line fishing with long lines of baited hooks for which no licence is exacted and which at certain times of the year gives very good results. One thousand two hundred and forty-two fishing-boats were registered against 1,238 in 1912.

44. The average number of fishermen in the district is estimated at 1,070 against 1,106 in 1912, 1,050 in 1911, 1,145 in 1910, and 1,234 in 1909. The average taxation per head works out at \$6.98 in 1914 against \$6.83 in 1912, \$6.77 in 1911, \$6.30 in 1910, and \$7.66 in 1909.

45. The exports of the district to places outside the Federated Malay States continued to decline.

## DISTRICT OF KLANG.

46. It was intended to station an officer at Pulau Ketam in this district but owing to housing difficulties it was finally decided to place him at Jeram, his district comprising the coast from Kuala Selangor to Tanjong Rhu. Baba bin Awang was appointed as Assistant Inspector on six months' probation. He took up his duties on 21st November, 1913.

47. As noted in previous reports the Klang fisheries continue to slowly improve, or rather to be more extensively exploited as the following figures show :

Year.	No. of fishermen.	Taxation per head.	Revenue.
1906 ... ..	372	\$5.72	\$ 2,125.75
1907 ... ..	395	5.25	2,075.00
1908 ... ..	397	5.16	2,051.00
1909 ... ..	414	5.26	22,176.00
1910 ... ..	472	4.93	2,327.25
1911 ... ..	481	4.97	2,395.25
1912 ... ..	500	5.06	2,529.50
1913 ... ..	508	5.19	2,639.25

Fishing is almost entirely by means of drift nets of which 1,717 were registered during the year, and practically the whole industry is centred at Pulau Ketam, which is an extremely prosperous place.

48. The production of blachan shows that a great deal of illegal *sungkor* fishing still continues, which it will not be possible to deal with until the delivery of the fisheries launch, which is now nearly complete.

#### DISTRICT OF KUALA LANGAT.

49. The fisheries of the Kuala Langat district, together with those of the adjacent coasts of Negri Sembilan, have been on the decline for many years and are unimportant as a source of supply. It was considered that they would receive adequate attention if grouped under one Assistant Inspector of Fisheries; Raja Mutlak bin Raja Yusop was appointed to the office and took up his duties on 1st December, 1913. He was stationed at Batu and provided with a sea-going whale-boat with a crew of four men.

50. For the year 1913 there was a slight increase of revenue, the collections for the last six years being shown in the annexed table. Possibly when the projected coast railway is completed the industry will revive with readier access to markets and a cheaper supply of ice, but until then, unless a general and heavy fall in the rate of wages takes place, fishing will never be more than a very minor industry in this district.

Year.	No. of fishermen.	Taxation per head.	Revenue.
1908 ... ..	175	\$6.00	\$1,050.00
1909 ... ..	141	5.46	770.75
1910 ... ..	139	6.16	717.25
1911 ... ..	114	5.94	677.25
1912 ... ..	110	5.78	636.25
1913 ... ..	126	5.19	654.00

51. Fishing-boats continue to decline in number, 244 being registered in 1913 against 259 in 1912, 275 in 1911, and 329 in 1910. *Jaring* also continued to decrease, 325 being in use in 1913 against 338 in the previous year. There was an increase in the number of seine nets from 7 to 15 and of outshore stakes from 6 to 25 but the inshore *blat* fell off from 55 to 24.

52. No fish was exported from the district during the year under review.

#### STATE OF NEGRI SEMBILAN.

53. The fisheries of the State continue in the same moribund condition in which they have been for years past and there is little fresh to state concerning them. The revenue continues to decline and the considerable reduction of licence fees that took place in 1911 has had little influence on the industry as a whole.

The following figures show the position since 1907 :

Year.	No. of fishermen.	Taxation per head.	Revenue.
1907 ... ..	133	\$4.70	\$625.60
1908 ... ..	120	4.61	533.30
1909 ... ..	118	4.24	500.60
1910 ... ..	103	4.64	474.30
1911 ... ..	85	4.30	364.95
1912 ... ..	70	3.74	261.55
1913 ... ..	70	3.28	237.01

One hundred and ninety-eight fishing-boats were licensed against 176 in 1912, and 161 in 1911. *Jaring* increased slightly from 121 to 131 as was also the case with seine nets and the small *blat*, but offshore stakes fell from 15 to 5.4; *rawei* licences were issued against one in previous years.

No exports are recorded for the year against a total value of \$914 in 1912, and \$460 in 1911.

The imports were valued at \$272,257 against \$176,492 in 1911, salt and dried fish accounting for \$266,765 against \$161,478 for the previous year. The import of fish manure from the east coast of Sumatra *via* Tampin and Malacca decreased from \$9,772 to \$3,249.

The following returns are appended :

- A. Total amount of Salt and Fresh Fish carried over the Federated Malay States Railways in 1913.
- B. Comparative Quarterly Return of Exports of Fisheries Products from the State of Perak for 1912 and 1913.
- C. Comparative Quarterly Return of Imports of Fisheries Products into the State of Perak during 1912 and 1913.
- D. Summary of Fishing-Boats and Fishing Licences issued Quarterly in the State of Perak for 1912 and 1913.
- E. Summary of Fishing-Boats and Fishing Licences issued Quarterly in the District of Krian for 1912 and 1913.\*
- F. Summary of Fishing-Boats and Fishing Licences issued Quarterly in the District of Matang for 1912 and 1913.\*
- G. Summary of Fishing-Boats and Fishing Licences issued Quarterly in the District of Lower Perak for 1912 and 1913.\*
- H. Comparative Quarterly Return of Exports of Fisheries Products from the State of Selangor during 1912 and 1913.
- I. Comparative Quarterly Return of Imports of Fisheries Products into the State of Selangor during 1912 and 1913.
- J. Summary of Fishing-Boats and Fishing Licences issued Quarterly in the State of Selangor for 1912 and 1913.
- K. Summary of Fishing-Boats and Fishing Licences issued Quarterly in the District of Kuala Selangor for 1912 and 1913.\*
- L. Summary of Fishing-Boats and Fishing Licences issued Quarterly in the District of Klang for 1912 and 1913.\*
- M. Summary of Fishing-Boats and Fishing Licences issued Quarterly in the District of Kuala Langat for 1912 and 1913.\*
- N. Comparative Statement of Fishing Licences issued Quarterly in the State of Negri Sembilan for 1912 and 1913.
- O. Comparative Quarterly Statement of Exports of Fisheries Products from the State of Negri Sembilan during 1912 and 1913.
- P. Comparative Quarterly Statement of Imports of Fisheries Products into the State of Negri Sembilan during 1912 and 1913.

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\* District returns not printed.

## APPENDIX A.

## FEDERATED MALAY STATES.

Quarterly Statement of Salt and Fresh Fish forwarded to Stations in the Federated Malay States during the year 1913.

Stations.	Salt Fish.				Fresh Fish.				Total.	
	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Salt Fish.	Fresh Fish.
	Pkls. kts.	Pkls. kts.	Pkls. kts.	Pkls. kts.	Pkls. kts.	Pkls. kts.	Pkls. kts.	Pkls. kts.	Pkls. kts.	Pkls. kts.
Penang ... ..	46 75	99 95	108 84	76 19	...	...	34 30	25 39	331 73	59 69
Prai ... ..	...	...	...	36 00	...	...	302 84	112 00	36 00	414 84
Nibong Tebal ... ..	53 37	20 95	85 71	46 58	78 50	96 00	79 40	328 84	206 61	582 74
Parit Buntar ... ..	...	...	...	82 87	547 37	225 96	54 29	568 70	82 87	1,396 32
Simpang Lima ... ..	1 20	...	8 83	10 00	845 28	192 53	44 24	1,684 30	20 03	2,766 35
Bagan Serai ... ..	790 61	3,359 45	193 14	681 56	3,833 08	2,317 81	1,946 71	2,981 78	5,024 76	11,079 38
Port Weld ... ..	258 00	373 85	364 53	239 90	2,193 58	1,141 15	1,079 25	941 20	1,236 28	5,355 18
Telok Anson ... ..	9,275 12	10,269 86	10,425 46	10,929 85	5,337 93	5,236 98	6,423 16	5,443 75	40,900 29	22,441 82
Klang ... ..	2,660 04	3,470 48	2,927 91	3,212 66	...	...	...	...	12,271 09	...
Port Swettenham ... ..	7,329 58	9,552 06	7,195 11	7,933 28	10,342 06	12,666 23	9,377 74	9,348 00	32,010 03	41,734 03
Malacca ... ..	1,156 17	1,290 30	1,767 27	1,669 17	12 50	185 50	3 00	...	5,882 91	201 00
Total ...	21,570 84	28,436 90	23,076 80	24,918 06	23,190 30	22,062 16	19,344 93	21,433 96	98,002 60	86,031 35

∞

## APPENDIX B.

## STATE OF PERAK.

Comparative Quarterly Return of Exports of Salt Fish, etc., for 1912 and 1913.

Product.	1st Quarter, 1912.	1st Quarter, 1913.	2nd Quarter, 1912.	2nd Quarter, 1913.	3rd Quarter, 1912.	3rd Quarter, 1913.	4th Quarter, 1912.	4th Quarter, 1913.	Total, 1912.	Total, 1913.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Blachan ... ..	1,773	3,175	1,631	2,909	2,389	1,981	2,673	2,875	8,466	10,940
Salt Fish ... ..	2,712	5,206	2,591	4,041	2,165	3,347	2,810	26,878	10,278	39,472
Fresh Fish ... ..	1,851	2,852	1,332	1,399	955	2,879	1,963	4,963	6,101	12,093
Sharks' Fins ... ..	69	92	77	176	155	36	165	88	466	392
Fish Maws ... ..	543	378	299	473	185	173	146	411	1,173	1,435
Total ...	6,948	11,703	5,930	8,998	5,849	8,416	7,757	35,215	26,484	64,332



APPENDIX C.

STATE OF PERAK.

Comparative Quarterly Return of the Imports of Salt Fish, etc., for 1912 and 1913.

Product.	1st Quarter, 1912.	1st Quarter, 1913.	2nd Quarter, 1912.	2nd Quarter, 1913.	3rd Quarter, 1912.	3rd Quarter, 1913.	4th Quarter, 1912.	4th Quarter, 1913.	Total, 1912.	Total, 1913.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Blachan ... ..	274	223	195	177	150	272	198	233	817	905
Salt Fish ... ..	105,400	115,046	129,219	133,227	131,438	120,245	126,569	128,031	492,626	496,549
Fresh Fish ... ..	13,245	18,136	16,108	24,432	27,178	35,523	24,358	28,794	80,889	106,885
Sharks' Fins ... ..	4,494	2,820	4,265	4,384	3,368	1,815	2,993	3,205	15,120	12,224
Fish Maws ... ..	220	1,164	1,436	1,024	1,328	1,494	903	820	3,887	4,502
Total ... ..	123,633	137,389	151,223	163,244	163,462	159,349	155,021	161,083	593,339	621,065

APPENDIX D.

STATE OF PERAK.

Comparative Quarterly Statement of Fishing Licences issued for 1912 and 1913.

Heading.	1st Quarter, 1912.	1st Quarter, 1913.	2nd Quarter, 1912.	2nd Quarter, 1913.	3rd Quarter, 1912.	3rd Quarter, 1913.	4th Quarter, 1912.	4th Quarter, 1913.	Total, 1912.	Total, 1913.
1. Fishing Boats ... ..	1,285	1,304	611	453	177	212	171	119	2,244	2,088
2. Nets—										
(a) Drift Nets ... ..	314	357	353	369	359	379	368	384	1,394	1,489
(b) Seine Nets (large) ... ..	260	246	216	210	195	211	226	244	897	911
(c) „ Nets (small) ... ..	3	...	7	...	5	...	6	25	21	25
3. Fishing Stakes—										
(a) Outshore Stakes ... ..	38	52	39	54	41	46	35	53	153	205
(b) Inshore Stakes ... ..	640	702 *	787	812 †	812	788 ‡	804	779 §	3,043	3,081
4. Lines—										
Rawei ... ..	27	36	28	33	31	44	26	46	112	159
5. Shell Fish ... ..	...	...	...	...	...	...	...	...	...	...
Total Revenue ... ..	\$3,728.25	\$4,050.50	\$3,923.75	\$4,070.25	\$3,761.25	\$3,969.00	\$3,929.75	\$4,101.75	\$15,343.00	\$16,191.50

\* Includes 450 ambai. † Includes 586 ambai. ‡ Includes 716 ambai. § Includes 495 ambai. || Includes 2,247 ambai.

APPENDIX H.

STATE OF SELANGOR.

Comparative Quarterly Return of Exports of Salt Fish, etc., for 1912 and 1913.

Product.	1st Quarter, 1912.	1st Quarter, 1913.	2nd Quarter, 1912.	2nd Quarter, 1913.	3rd Quarter, 1912.	3rd Quarter, 1913.	4th Quarter, 1912.	4th Quarter, 1913.	Total, 1912.	Total, 1913.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Blachan ... ..	10,974	6,706	5,773	4,301	3,850	3,258	4,807	7,325	25,404	21,590
Salt Fish ... ..	5,267	3,741	10,369	2,252	2,511	5,762	3,181	4,455	21,328	16,210
Fresh Fish ... ..	...	677	...	228	...	175	45	...	45	1,080
Sharks' Fins ... ..	182	220	103	60	104	157	67	43	456	480
Fish Maws ... ..	5,386	3,538	1,831	2,091	1,002	1,047	852	461	9,071	7,137
Total ... ..	21,809	14,882	18,076	8,932	7,467	10,399	8,952	12,284	56,304	46,497

APPENDIX I.

STATE OF SELANGOR.

Comparative Quarterly Return of Imports of Salt Fish, etc., for 1912 and 1913.

Product.	1st Quarter, 1912.	1st Quarter, 1913.	2nd Quarter, 1912.	2nd Quarter, 1913.	3rd Quarter, 1912.	3rd Quarter, 1913.	4th Quarter, 1912.	4th Quarter, 1913.	Total, 1912.	Total, 1913.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Blachan ... ..	84	124	439	79	479	45	65	90	1,067	338
Salt Fish ... ..	105,741	116,985	118,403	132,647	119,091	113,615	138,365	118,400	481,600	481,647
Fresh Fish ... ..	3,253	4,308	4,376	7,938	4,569	8,859	5,168	6,421	17,366	27,526
Sharks' Fins ... ..	2,197	1,819	1,875	2,930	1,765	1,081	1,000	2,037	6,837	7,867
Fish Maws ... ..	...	1,273	185	...	744	1,194	560	740	1,489	3,207
Total ... ..	111,275	124,509	125,278	143,594	126,648	124,794	145,158	127,688	508,359	520,585

## STATE OF SELANGOR.

## Comparative Quarterly Statement of Fishing Licenses issued for 1912 and 1913.

Heading.	1st Quarter, 1912.	1st Quarter, 1913.	2nd Quarter, 1912.	2nd Quarter, 1913.	3rd Quarter, 1912.	3rd Quarter, 1913.	4th Quarter, 1912.	4th Quarter, 1913.	Total, 1912.	Total, 1913.
1. Fishing Boats ... ..	1,761	1,662	381	402	137	148	80	95	2,359	2,307
2. Nets—										
(a) Drift Nets ... ..	826	688	717	753	853	796	777	717	3,173	2,954
(b) Seine Nets (large) ... ..	73	81	59	67	54	63	63	91	249	302
(c) „ Nets (small) ... ..	48	56	75	45	110	97	107	138	340	336
3. Fishing Stakes—										
(a) Outshore Stakes ... ..	70	82	64	52	47	39	71	81	252	254
(b) Inshore Stakes ... ..	268 <i>a</i>	287 <i>b</i>	361	360 <i>c</i>	353 <i>d</i>	366 <i>e</i>	305 <i>f</i>	334 <i>g</i>	1,287 <i>h</i>	1,347 <i>i</i>
4. Lines—										
Rawei ... ..	24	16	19	16	17	15	17	15	77	62
Total Revenue ... ..	\$2,908.50	\$2,866.50	\$2,656.00	\$2,605.50	\$2,614.25	\$2,550.00	\$2,545.50	\$2,744.75	\$10,724.25	\$10,766.75

*a* Includes 194 *ambai*.      *b* Includes 221 *ambai*.      *c* Includes 292 *ambai*.      *d* Includes 299 *ambai*.      *e* Includes 319 *ambai*.      *f* Includes 252 *ambai*.      *g* Includes 284 *ambai*.  
*h* Includes 745 *ambai*.      *i* Includes 1,116 *ambai*.

## APPENDIX N.

## STATE OF NEGRI SEMBILAN.

## Comparative Quarterly Statement of Fishing Licences issued for 1912 and 1913.

Heading.	1st Quarter, 1912.	1st Quarter, 1913.	2nd Quarter, 1912.	2nd Quarter, 1913.	3rd Quarter, 1912.	3rd Quarter, 1913.	4th Quarter, 1912.	4th Quarter, 1913.	Total, 1912.	Total, 1913.
1. Fishing Boats ... ..	117	113	34	41	13	21	12	23	176	198
2. Nets—										
(a) Drift Nets ... ..	24	34	31	33	34	32	32	32	121	131
(b) Seine Nets (large) ... ..	1	1	5	5	1	3	...	2	7	11
(c) „ Nets (small) ... ..	...	...	...	...	...	1	...	...	...	1
3. Fishing Stakes—										
(a) Outshore Stakes ... ..	5	2	7	3	...	...	3	...	15	5
(b) Inshore Stakes ... ..	2	...	8	7	5	4	6	12	21	23
4. Lines—										
Rawei ... ..	...	1	...	1	...	1	...	1	...	4
Total Revenue ... ..	\$64.15	\$52.00	\$106.15	\$82.36	\$38.55	\$47.60	\$52.70	\$55.05	\$261.55	\$237.01

APPENDIX O.

STATE OF NEGRI SEMBILAN.

Comparative Quarterly Return of Exports of Salt Fish, etc., for 1912 and 1913.

Product.	1st Quarter, 1912.	1st Quarter, 1913.	2nd Quarter, 1912.	2nd Quarter, 1913.	3rd Quarter, 1912.	3rd Quarter, 1913.	4th Quarter, 1912.	4th Quarter, 1913.	Total, 1912.	Total, 1913.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Blachan ... ..	8	...	430	...	...	...	...	...	438	...
Salt Fish ... ..	...	...	52	...	424	...	...	...	476	...
Fresh Fish ... ..	...	...	...	...	...	...	...	...	...	...
Sharks' Fins ... ..	...	...	...	...	...	...	...	...	...	...
Fish Maws ... ..	...	...	...	...	...	...	...	...	...	...
Total ...	8	...	482	...	424	...	...	...	914	...

APPENDIX P.

STATE OF NEGRI SEMBILAN.

Comparative Quarterly Statement of Imports of Salt Fish, etc., for 1912 and 1913.

Product.	1st Quarter, 1912.	1st Quarter, 1913.	2nd Quarter, 1912.	2nd Quarter, 1913.	3rd Quarter, 1912.	3rd Quarter, 1913.	4th Quarter, 1912.	4th Quarter, 1913.	Total, 1912.	Total, 1913.
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Blachan ... ..	30	387	178	118	295	23	25	144	528	672
Salt Fish ... ..	39,729	32,994	35,366	47,812	41,792	150,277	44,591	35,682	161,478	266,765
Fresh Fish ... ..	968	659	585	419	310	310	708	133	2,571	1,521
Sharks' Fins ... ..	290	...	525	...	800	...	...	...	1,615	...
Fish Manure ... ..	2,058	...	2,286	3,249	2,146	...	3,282	...	9,772	3,249
Fish Maws ... ..	...	50	240	...	128	...	160	...	528	50
Total ...	43,075	34,090	39,180	51,598	45,471	150,610	48,766	35,959	176,492	272,257