

## **Annual report on Sarawak.**

### **Publication/Creation**

London : H.M.S.O., [1959]

### **Persistent URL**

<https://wellcomecollection.org/works/b59v8jtw>

### **License and attribution**

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

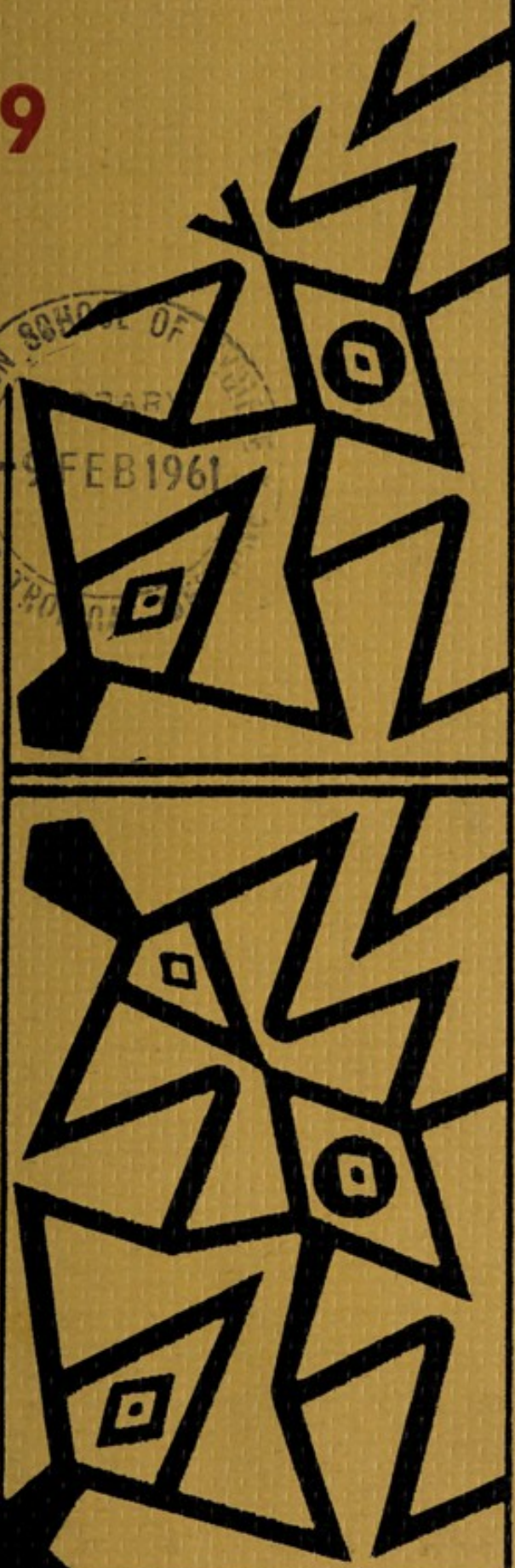
You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection  
183 Euston Road  
London NW1 2BE UK  
T +44 (0)20 7611 8722  
E [library@wellcomecollection.org](mailto:library@wellcomecollection.org)  
<https://wellcomecollection.org>

72225  
2025  
**SARAWAK**

**1959**



Cover design by Hasbie bin Sulaiman based  
on a Penan mat from the Ulu Rejang

**SARAWAK**

---

**ANNUAL REPORT**

**1959**

© *Crown copyright 1961*

Published in England by  
HER MAJESTY'S STATIONERY OFFICE  
London: 1961

PRICE 13s. 6d. NET .  
*(Printed in Sarawak)*

---

This Report  
is included in the series of Colonial Reports  
published for the Colonial Office.

S.O. Code No. 58-1-33-59  
(81758)

PRINTED AND PUBLISHED IN KUCHING AT THE  
SARAWAK GOVERNMENT PRINTING OFFICE  
F. W. GOODWIN, O.B.E., GOVERNMENT PRINTER

# CONTENTS

## PART I

	GENERAL REVIEW OF THE YEAR	I
--	----------------------------	---

## PART II

I	POPULATION	11
II	OCCUPATION, WAGES AND LABOUR ORGANISATION	14
III	PUBLIC FINANCE AND TAXATION	17
IV	CURRENCY AND BANKING	23
V	COMMERCE	24
VI	LAND UTILISATION AND TENURE	31
	HOUSING AND TOWN PLANNING	45
VII	PRODUCTION	
	AGRICULTURE	52
	ANIMAL HUSBANDRY	64
	FRESHWATER FISHERIES	67
	FORESTRY	68
	NATIONAL PARKS	76
	MINERAL RESOURCES	77
VIII	CO-OPERATIVE DEVELOPMENT	85
IX	SOCIAL SERVICES	
	EDUCATION	89
	PUBLIC HEALTH	96
	SOCIAL WELFARE	103
	COMMUNITY DEVELOPMENT	105
X	LEGISLATION	106
XI	LAW AND ORDER	
	JUSTICE	110
	CONSTABULARY	117
	PRISONS	125
	SARAWAK BOYS' HOME	127

## CONTENTS—*continued*

XII	PUBLIC UTILITIES AND PUBLIC WORKS	
	WATER SUPPLIES	130
	GAS	133
	BROOKE DOCKYARD AND ENGINEERING WORKS	133
	PUBLIC WORKS	134
	ELECTRICITY	136
XIII	COMMUNICATIONS	
	AIR	139
	WATER	141
	ROADS	145
	LAND TRANSPORT	146
	TELECOMMUNICATIONS	148
XIV	INFORMATION, PRESS AND BROADCASTING	152
XV	LOCAL FORCES	155
	 PART III	
I	GEOGRAPHY AND CLIMATE	159
II	GEOLOGY	164
III	HISTORY	169
IV	SCIENCE AND THE ARTS	183
V	FLORA AND FAUNA	188
VI	ADMINISTRATION	197
VII	WEIGHTS AND MEASURES	201
VIII	NEWSPAPERS AND PERIODICALS	202
IX	BIBLIOGRAPHY	203
	APPENDICES	207
	INDEX	237

# ILLUSTRATIONS

Farewell to an Old Friend - - - - -		<i>frontispiece</i>
		<i>between pages</i>
Presentation to His Royal Highness Prince Philip -	}	16/17
Muara Tebas Temple - - - - -		
Celebration of the Prophet Mohamad's Birthday -		
Farewell Parade of the Sarawak Rangers - - - -		
Kuching School of Navigation - - - - -	}	48/49
Inter-Club Athletic Meeting - - - - -		
Malay-Punan Festival - - - - -		
Padawan Community Development Centre - - - -		
New Methodist Chinese Primary School - - - - -	}	112/113
Signal Guns - - - - -		
New Padawan Road - - - - -		
Simanggang Hospital - - - - -		
Viscount Aircraft at Kuching - - - - -	}	144/145
Shipping alongside the Wharf in Sibul - - - - -		
The new Kuching Wharf - - - - -		
The new Airfield at Marudi - - - - -		
The "Painted Cave" at Niah - - - - -	}	176/177
The Curator - - - - -		
A long-nosed River Tortoise - - - - -		
A young male Maias (or Orang-utan) - - - - -		



ILLUSTRATIONS

Introduction	vii
Chapter I	1
Chapter II	15
Chapter III	30
Chapter IV	45
Chapter V	60
Chapter VI	75
Chapter VII	90
Chapter VIII	105
Chapter IX	120
Chapter X	135
Chapter XI	150
Chapter XII	165
Chapter XIII	180
Chapter XIV	195
Chapter XV	210
Chapter XVI	225
Chapter XVII	240
Chapter XVIII	255

**PART I**

PART I

## GENERAL REVIEW OF THE YEAR

---

FOR Sarawak 1959 was a year of steady and heartening progress on all fronts. After the comparative stagnation of 1958 trade picked up, prices for export products were high and the budgetary position turned out to be very much better than had been anticipated. A revised and expanded Development Plan for the five years 1959-63 was drawn up and approved. There were no disorders, no strikes of any moment and the population as a whole gave every sign of maintaining its exceptionally high standard of civility and respect for law. Politically, a landmark was passed with the emergence of political parties and towards the end of the year the nation embarked on its first country-wide elections. On the human side, the year was noteworthy for an exceptional number of comings and goings.

Of visitors the most distinguished was His Royal Highness the Duke of Edinburgh. Prince Philip sailed up the Sarawak River in the royal yacht *Britannia* on the afternoon of 26th February and disembarked at Pending. After being received by His Excellency the Governor and members of Supreme Council he drove in an open car along the four-mile route to Kuching, lined with cheering crowds, to enter the gaily decorated town amid scenes of great enthusiasm. In the evening His Royal Highness attended a reception at the Astana and later witnessed a performance of traditional dances representative of all the races of Sarawak. The evening's entertainment concluded with a fine display of fireworks.

The following morning, after inspecting a Guard of Honour provided by the Sarawak Constabulary, His Royal Highness received addresses of welcome in the Council Negri Chamber to which Prince Philip was graciously pleased to reply. Thereafter he made a ceremonial tour of the town in an open motor car, passing under many gaily decorated arches erected by the local communities, before flying up to Sibuan in a Heron of the Royal Flight. Here he made a brief tour of the town and declared open

the new King George VI Memorial Playing Field, after which he flew on to Miri in the company the Governor. That evening saw Miri in its most festive mood and His Royal Highness was again entertained, after attending a large reception, to a display of further traditional dances.

Prince Philip's visit to Sarawak came to an end the following morning after a drive around the town when he flew on to Seria in the State of Brunei. It had been a truly memorable occasion for the peoples of Sarawak who were completely captivated by His Royal Highness's charm of manner and friendly personality. Everywhere he went there were demonstrations of joy and loyalty to mark an event which will long be remembered in the annals of this country.

Of departures the saddest was that of Sir Anthony Abell, K.C.M.G., who left Sarawak on the 14th November after a Governorship of nearly ten years during which he endeared himself to all sections of the community by his humanity, his rich capacity for friendship, his wisdom and his understanding. He arrived at a critical time in the history of Sarawak, when the country was riven by controversy over Cession. He left a people prosperous and peaceful, and united in its affection for his person despite its racial diversity. Shortly before his departure it was announced that he would be succeeded by Sir Alexander Waddell, K.C.M.G., D.S.C., (then Deputy Governor of Sierre Leone) who would arrive early in 1960.

Besides the Governor there departed on retirement during the year the Chief Justice (Sir Ernest Williams), a Resident (Mr. Jacks) and no less than six Heads of Departments (Dr. Glyn-Evans, Mr. Browne, Mr. Cockle, Mr. Field, Mr. Murray and Mr. Philip Jones). Towards the end of the year it was announced that Sir John Ainley, Chief Justice of the Eastern Region of Nigeria, would be Sarawak's new Chief Justice. A new Chief Secretary (Mr. F. D. Jakeway) and a new Accountant-General (Mr. H. M. J. Underhay) arrived in May, a new Director of Lands and Surveys (Mr. R. T. Russell) in September and a new Director of Medical Services (Dr. D. A. Baird) in December. A new post of Economic Secretary was filled by the appointment of Mr. R. A. Bennett. The posts of Conservator of Forests and Commissioner of Trade and Customs were filled by officers already in the Sarawak Service.

Mr. B. E. Smythies, and Mr. J. A. G. Benson respectively. Mr. G. A. T. Shaw was promoted to be Secretary for Local Government and Mr. M. J. Forster to be a Resident.

The task of revising the laws of Sarawak which was begun in 1956, was completed during the year and the Revised Edition of the Ordinances and of Subsidiary Legislation came into force on 3rd June. The revision was largely done in the Attorney-General's Chambers and the printing wholly undertaken by the Government Printer.

Council Negri held four meetings, in February, June, August and December. Less legislation was enacted than in previous years (the most important of the new Ordinances being the Anti-Corruption Ordinance and the Protection of Women, Young Persons and Children Ordinance) but a number of important motions were debated, including one dealing with the Development Plan for 1959-63 and one proposing a system of Local Authority rating. Members made good use of question time and the motions for the adjournment. Membership of Council Negri remained unchanged throughout the year except for the nomination of Captain D. R. Gribble of Sarawak Shell Oilfields, Limited, to replace Mr. C. B. Horn who had retired.

Supreme Council met regularly throughout the year, normally sitting twice a month, and transacted a very considerable volume of business. It has six unofficial members (five of them chosen by the elected members of Council Negri) and four official members and is presided over by the Governor.

Politically the year was quiet. Much attention was paid to the evolution of a sound system of local government. The constitutions of all the Rural District Councils were revised to conform largely with a standard model. After careful explanation all Local Authorities decided to adopt a rating system supported by central government grants. Towards the end of the year country-wide elections were held by ballot box to choose new District Councils and (via Divisional Electoral Colleges) new members of Council Negri. In a land of scattered population and poor communications this was no mean feat of organisation on the part of the administration.

In the middle of the year the formation of Sarawak's first political party, the Sarawak United People's Party, was announced. The party has a majority in the Kuching Municipal Council and members in other Councils, although it did not campaign as a party in the local government elections. Not unexpectedly, one party has led to another, the Party Negara, and it remains to be seen to what extent political development in Sarawak will henceforward be on party lines. Undoubtedly the tempo will quicken. The danger is that party divisions will follow racial lines. Perhaps the best safeguard against this danger is the fact that everyone is so acutely aware of it and its evil consequences.

Compared with communalism, Communism is a lesser internal threat, although a subversive element in the population undoubtedly exists. Two Chinese-born school teachers had to be deported during the year and the Government has stated firmly that it will not tolerate subversive activity in the schools, in the trade unions, or anywhere else. In this policy it has the backing of the great majority of the population.

On the 29th September the Governor of Sarawak ceased to be High Commissioner for Brunei and the administrative connection between Sarawak and Brunei came to an end.

Labour-employer relations were satisfactory and there were no strikes of any consequence during the year. One result of the administrative separation of Brunei from Sarawak was that Sarawak for the first time had a Labour Commissioner resident inside its borders. This should lead to closer contact between Government and the trade unions than hitherto.

The economic position of the country was a good deal stronger at the end of the year than at the beginning. Generally speaking, it was the best year for exports and trade since the boom period of 1950 to 1952. Prices for rubber, pepper and timber were high and there was a windfall in the shape of a record illipe nut crop. The volume of exports also increased. The result was a considerable budget surplus at the end of the year which could be transferred to the Development Fund to finance the Five Year Development Plan.

The Plan provides for expenditure of \$115 million over the period 1959-63. Nearly \$31 million will be spent on agriculture and over \$41 million on communications. Just over two-thirds of the total is devoted to economic schemes. Of the remainder

over \$11 million will be spent on education, \$7 million on health, and \$9 million on water supplies. To meet the cost of the Plan Colonial Development and Welfare Grants will provide over \$32 million and \$20 million will be raised by loan. The balance must be met from appropriations of revenue from various sources. So it is clear how essential it is to budget for continuing surpluses.

The main agricultural effort has continued to be directed towards the Rubber Planting Scheme and it has been possible to raise the target from 60,000 acres to 90,000 acres. A Coconut Planting Scheme, aimed at planting 10,000 acres in four year was launched in January. The post of Assistant Director (Extension) was filled during the year and progress was made with the organisation of this branch of the Agriculture Department. Special attention is being paid to freshwater fisheries and the expansion of wet padi planting. An Assistant Director also arrived during the year to take charge of the Research Branch and an expanded research programme has been drawn up.

Timber exports increased considerably. Ramin continued to be in strong demand and Japan entered the market as a major buyer of logs. In October Mr. M. N. Gallant, a United Nations timber marketing expert, visited Sarawak to advise the Government on probable future trends and on ways by which the production and marketing of timber could be improved.

There were no new developments in mining but exports of bauxite were double those of 1958, when production started. Exploration for oil continued but with no significant results so far. Interest was shown in the exploration of the country's coal and mercury deposits.

Satisfactory progress was made in the construction of the Serian-Simanggang road and the new wharf at Kuching. A programme of feeder roads was decided upon and priorities allocated. The runway at Kuching Airport was extended to accommodate the Viscount aircraft which Malayan Airways introduced on the Singapore-Kuching-Brunei-Jesselton route towards the end of the year. Marudi was included in the regular schedule of Borneo Airways internal services.

The water supplies of Kuching and Sibul were placed under the control of statutory water boards and supplies were inaugurated at a number of population centres.



Electricity supplies were extended and a new power station was opened by the Sarawak Electricity Supply Company in Kuching.

As with all developing countries, education is in great demand by all sections of the community. The goal of universal primary education draws nearer but there is still some way to go before it is reached. As Government policy in regard to secondary education was arousing controversy Mr. David McLellan, Education Advisor to the Commissioner-General for South-east Asia, was invited to review the position. His report was received at the end of the year and will doubtless be a major talking point for 1960. After two pilot projects in 1958 schools broadcasting made a successful beginning during the year and should provide a valuable contribution to the raising of standards in rural schools.

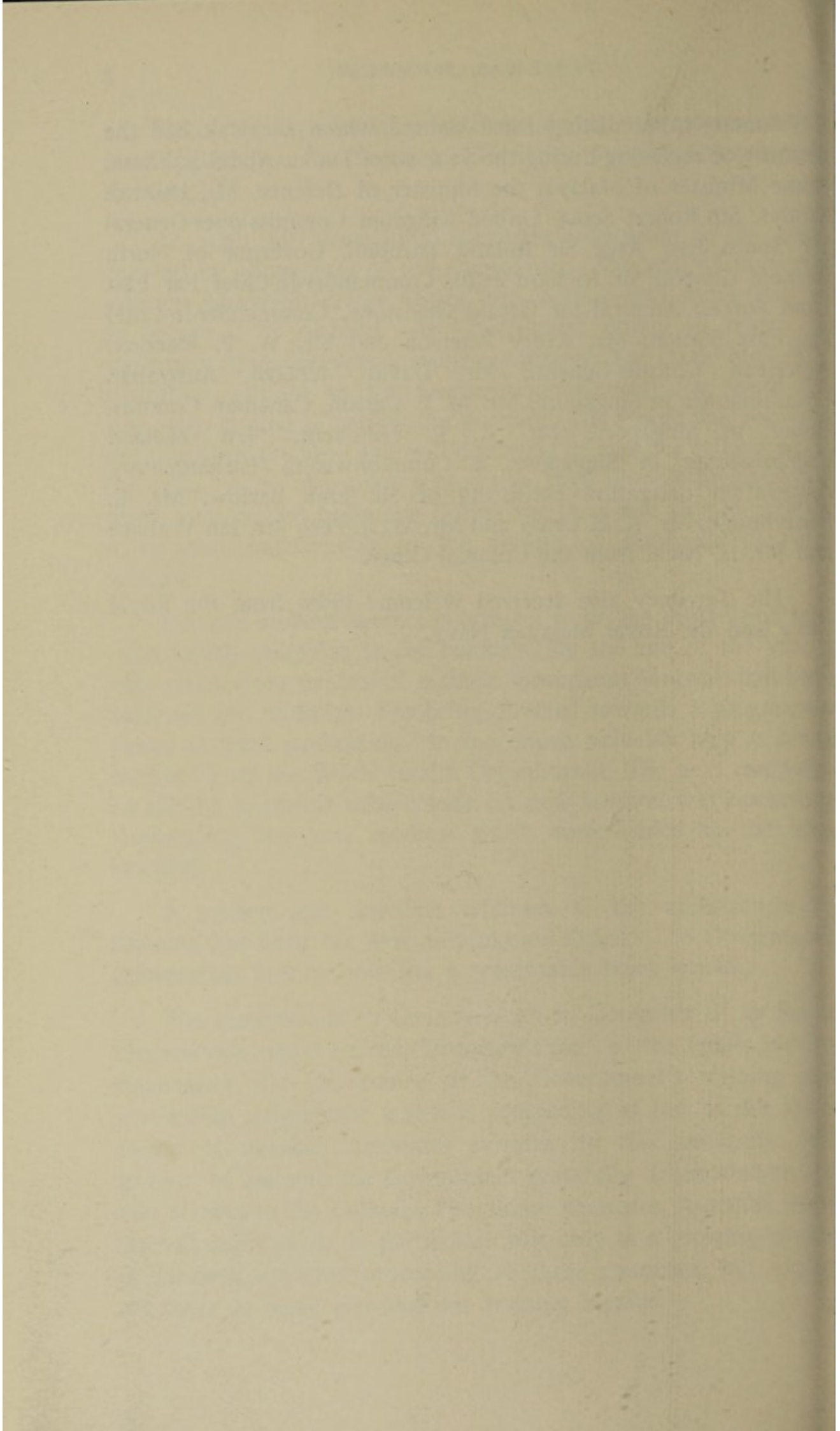
The anti-malaria project continued to be the most important mass health campaign in the country. By the end of the year a very satisfactory control of malaria throughout Sarawak had been achieved and attention was being directed towards a programme aimed at total eradication. In this much valuable help is being received from the World Health Organisation. The next campaign on the list is against tuberculosis. A new hospital was opened at Simanggang and new medical wards were added to the Sibuh Hospital.

A modest but welcome addition to the architecture of Kuching has been the new Information Office. The Government Information Service now has a presentable front window.

The presentation to Council Negri in December of its Select Committee's report on the "Borneanisation" of the Public Service emphasised the importance of the Government's training and scholarship programme which is proceeding as fast as the availability of suitable candidates permits. In this ambitious programme of training the Government gratefully acknowledges the debt it owes to the Colombo Plan donor countries, Australia, New Zealand and Canada in particular. Not only is a growing stream of Sarawak students proceeding to these countries, but expert assistance is being provided for training locally.

Among other distinguished visitors whom Sarawak had the pleasure of receiving during the year were Tunku Abdul Rahman, Prime Minister of Malaya; the Minister of Defence, Mr. Duncan Sandys; Sir Robert Scott, United Kingdom Commissioner-General for South East Asia; Sir Roland Turnbull, Governor of North Borneo; General Sir Richard Hull, Commander-in-Chief Far East Land Forces; Admiral Sir Gerald Gladstone, Commander-in-Chief Far East Station; Mr. Avery Peterson and Mr. W. P. Maddox, American Consuls-General; Mr. David McNicol, Australian Commissioner in Singapore; Mr. M. P. Carson, Canadian Commissioner in Singapore; Mr. R. L. Hutchens, New Zealand Commissioner in Singapore; a Commonwealth Parliamentary Association delegation consisting of Sir John Barlow, Mr. E. Fernyhough, Mr. A. E. Oram and Mr. W. J. Peel; Mr. Ian Wallace and Mr. H. Nield from the Colonial Office.

The Territory also received welcome visits from the Royal Navy and the Royal Malayan Navy.



**PART II**

PART II

# I

---

## POPULATION

THE main native groups in Sarawak are Sea Dayak (or Iban), Malay, Melanau, Land Dayak, and a number of smaller groups comprising Kayans, Kenyahs, Bisayahs, Kedayans, Kelabits, Muruts, and others. The non-native races include Europeans, Chinese, Indians and Javanese.

The following table shows the number of each group in the 1947 Census, the latest to be taken:

	<i>Population</i>	<i>Percentage of total population</i>
Sea Dayak	190,326	34.8
Chinese	145,158	26.6
Malay	97,469	17.9
Land Dayak	42,195	7.7
Melanau	35,560	6.5
Other Indigenous	29,867	5.5
Other Non-Indigenous Asian	5,119	1.0
European	691	0.1
	<hr/> 546,385 <hr/>	<hr/> 100.0 <hr/>

The natives of Sarawak form 72.4 per cent of the population. The Sea Dayaks are the largest and probably the most homogeneous group. Very strong local variations appear in the Sea Dayak language, but it is distinctive and well-recognised as a native language of Sarawak.

The Land Dayaks live entirely in the First Division. The legendary home of these people is believed by many of them to be Gunong Sungkong in West Borneo, and a close relationship exists with people of the same culture in nearby villages in West Borneo. This kinship leads to some movement across the border.

The Malays are of mixed stock and probably the most recent arrivals of all the indigenous peoples. They are bound by the common tie of Islam and have been powerful along the coast for centuries. Their domination has been intermittent and at times must have been almost non-existent, but it was sufficiently effective to leave an impression upon the pagan tribes of the seaboard.

Numerically the Chinese are the second most important group; economically they take first place and culturally their influence is very strong. There is substantial evidence that Chinese have lived in or visited parts of Sarawak for many hundreds of years.

The Melanaus are found in the coastal areas of the Third and Fourth Divisions, and are the principal cultivators of sago. They are intermediate between the Malays and the pagan groups, in that some of them retain their pagan customs and habits, while others have become Muslims.

The Kayans and Kenyahs live on the Baram River and the headwaters of the Rejang and Balui. They are thought to have come from the Batang Kayan across the Indonesian border.

Other indigenous races are the Muruts, Bisayahs, Kelabits, nomadic Penans, Kedayans, and Dusuns from North Borneo.

The estimated populations at the 31st December, 1959 were made up as follows:—

Sea Dayak	205,031
Chinese	231,660
Malay and Melanau	169,171
Land Dayak	53,619
Other Indigenous	34,126
Other Non-Indigenous (including 2,543 Europeans)	9,918
	<hr/>
	703,525

These figures are based on the 1947 Census together with the births and deaths registered since then and the volume of migration to and from the country.

Migration to and from Sarawak during 1959 was as follows:—

	<i>Immigrants</i>	<i>Emigrants</i>
Chinese	7,596	6,755
European	2,843	2,741
Malay	993	809
Melanau	12	41
Sea Dayak	504	378
Land Dayak	2	0
Other Indigenous	32	9
Other Asian	699	739
	<hr/>	<hr/>
	12,681	11,472
	<hr/>	<hr/>



## II

---

### OCCUPATION, WAGES AND LABOUR ORGANISATION

THE majority of the people of Sarawak continue to be engaged in agricultural pursuits: the indigenous tribes are almost all padi farmers but also frequently collect jungle produce such as *rotan*, *jelutong* and *damar* (resin). The Chinese agriculturalists rely mainly on rubber and pepper. The average price for the former increased during the year and the activity of the previous two years was maintained; the world price for pepper rose slightly towards the end of the year but there was a decrease in production of approximately 14 per cent as compared with 1958.

Malays and Melanaus are largely employed in working sago and timber, whilst Ibans, when not busy on their padi farms, are often employed as log extractors in the forest.

A marked improvement in the timber trade resulted in an increased demand for labour and full employment was reported in the logging areas where short time had been in operation.

Sarawak Shell Oilfields Limited is the largest private employer in Sarawak. In the field and in the refinery at Lutong they have a senior staff of fifty-eight, a regional staff of 281 and 717 skilled and 503 unskilled workers, among whom Chinese, Malays, Dayaks and Indians respectively are roughly in the proportion of 23, 58, 16 and 3 per cent. A considerable number of skilled and unskilled workers were employed by the Company's contractors.

Rates of pay of the Oil Company's workers range from \$0.71 per hour for unskilled workers to \$1.67 per hour for the highest skilled artisans. Weekly hours of work are 43½ and overtime pay is 1½ times the ordinary rate. Two weeks' annual leave with pay is given and, for sickness, full pay for the first four weeks and half pay for the next eight weeks, after which time each case is reviewed.

The Company provides housing for all its employees and maintains a high standard of health and medical services.

Employees' sporting and social clubs are provided by the Company. Annually elected representatives meet the management each month to discuss working conditions, grievances and other matters affecting mutual relations and understanding. There are Malay, Chinese, Dayak and Indian representatives chosen roughly in proportion to the racial strengths. Subjects discussed during the year included housing, transport, redundancy, transfers, safety, medical and health, leave, grading of jobs, wages, allowances, overtime, houses and household facilities.

There is a training scheme run in conjunction with its associate Company in Brunei, designed to give boys theoretical knowledge, and training on the job and in the workshops in the electrical, radio and telephone, and mechanical trades. Selected employees are sent for training overseas.

Government technical training is carried out on a limited scale by the various technical departments. The Brooke Dockyard has some twenty-four apprentices and their training covers the repair and overhaul of marine crude oil engines, auxiliary machinery and general mechanical engineering work. The Agricultural Department has a co-educational training scheme for thirty-five men and women and the Public Works Department has 162 men in training in the various fields of engineering. The Sarawak Electricity Supply Company is training seven apprentices.

The construction of both public and private buildings in Kuching and the larger towns and the extensive development programme of the Government continue to absorb considerable numbers of both skilled and unskilled workers. Bauxite, sago production, logging, dock work and the distribution of import goods made up the rest of the field of organised employment in these localities.

Wage levels generally have been maintained. During 1959 the cost of living dropped slightly in both the oilfields and in Kuching. In the latter place there was a decrease of two points in the price index. Comparisons of the average figures for the years 1956, 1957, 1958 and 1959 with the basic figure of 100 for August 1950 were respectively 119.58, 121.19, 114.87 and 112.64.

There was little change in the wages earned in particular industries throughout Sarawak. The daily earnings of a rubber

tapper ranged from \$2.50 to \$6.80. Added to this are perquisites in the form of free housing and other amenities. Carpenters earn from \$4.50 to \$10.00 per day. The rate in the sawmills varied from a minimum of \$2.80 to \$13.00 a day and road and building construction workers ranged from \$3.40 to \$14.00. Wharf labourers were earning from \$4.00 to \$12.00 per day during the year.

Hours of work in the main industries remained unchanged and are governed by the eight-hour day and six-day week as provided for in the Labour Ordinance.

Considerable importance is attached by Government to promoting the healthy growth of Trade Unions in the territory and the Commissioner of Labour and the Registrar of Trade Unions are in close touch with these for the purpose of advising them on sound trade union lines. District Officers are Deputy Commissioners of Labour and responsible for enforcing labour legislation and the inspection of industrial undertakings in their areas. The Labour Ordinance, embodying the principles of the International Labour Conventions, protects workers in hours of work, health conditions, the age of admission to employment, medical treatment, provision of written contracts of employment, notice pay, and conditions of extra-territorial recruitment.

Two Trade Unions were registered in 1959 and the total numbered thirty-seven at the end of the year. The older and bigger unions continue to develop satisfactorily, but some of the smaller ones, more in the nature of guilds than Trade Unions, are too limited in numbers and scope to be very effective.

Industrial disputes are infrequent and no stoppage occurred throughout the year under review. Minor wage disagreements are usually settled without difficulty following reference to the Labour Department. The demand for labour is still considerable and in consequence wages in general tend to remain at a fairly high level.

Presentation to His Royal Highness Prince Philip in Kuching on 27th February. (*Hedda Morrison*)

*Overleaf:*

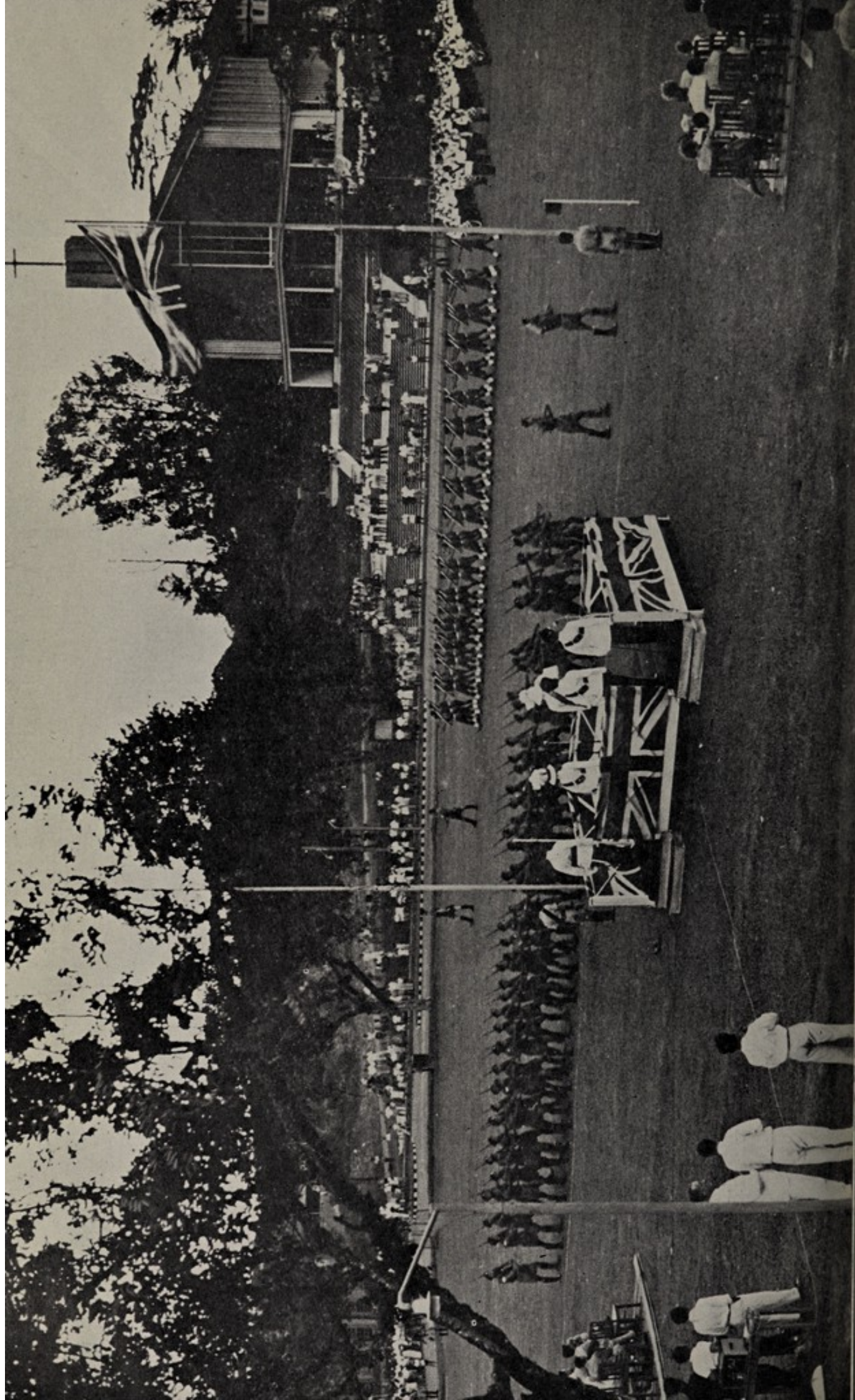
Devotions in the traditional Chinese manner at Muara Tebas Temple. (*Sarawak Museum*)

Celebration of the Prophet Mohamad's birthday in Kuching. (*Sarawak Museum*)









### III

## PUBLIC FINANCE AND TAXATION

### REVENUE AND EXPENDITURE

REVENUE and Expenditure for the years 1958 and 1959 were :

	Revenue \$	Expenditure \$	Surplus \$
Actual 1958	60,045,666	57,956,443	2,089,223
Estimated 1959 (revised)	67,005,500	65,273,700	1,731,800

A sum of \$5,500,000 was transferred to the Development Fund from Surplus Balances in 1959 and the General Revenue Balance as at 31st December, 1959 (estimated), was \$33,230,582.

#### REVENUE

The main heads of Revenue are :

	Revised Estimate 1959 \$	Actual 1958 \$
<i>Ordinary Revenue</i>		
Customs	36,500,000	26,648,489
Licences, Taxes and Internal Revenue	3,461,800	3,637,662
Fees of Court or Office, etc.	855,000	1,356,467
Departmental Services	1,807,900	2,134,523
Reimbursements	1,634,900	1,502,133
Land	1,097,500	1,121,840
Forestry	3,004,500	2,776,298
Posts and Telegraphs	1,748,500	1,626,033
Marine	496,000	333,332
Revenue from Government Property	1,526,000	1,463,361
Interest	3,435,400	2,922,481
Income Tax	9,960,000	12,094,386
	(65,527,500)	(57,617,005)
<i>Extraordinary Revenue</i>		
Land Sales	672,000	403,344
Loan Repayments	315,200	285,688
C.D. & W. Grants	124,800	84,352
Other Extraordinary Revenue	366,000	1,655,277
	(1,478,000)	(2,428,661)
	\$67,005,500	\$60,045,666

The farewell parade of the Sarawak Rangers on 5th August prior to their becoming a British Army unit in 1960. At this parade the special standard presented to the Rangers in June 1955 was returned to Kuching for safe-keeping. (Hedda Morrison)



## EXPENDITURE

Heads of Expenditure are:

<i>Head</i>	<i>Revised</i>	<i>Actual</i>
	<i>Estimate</i>	<i>1958</i>
	<i>1959</i>	<i>1958</i>
	\$	\$
Governor	168,000	183,888
Rajah's Dependants	30,000	48,621
Administration	2,866,000	2,805,898
Agriculture	1,537,000	1,337,660
Audit	155,000	142,318
Boys' Home	43,000	40,107
Broadcasting	694,000	673,364
Civil Aviation and Meteorological Service	498,000	401,217
Community Development	31,000	59,513
Constabulary	4,139,000	3,961,863
Co-operative Development	263,000	249,931
Defence and Internal Security	26,000	24,381
Education	9,621,000	8,745,261
Forestry	655,000	626,329
Geological	358,000	302,085
Immigration and National Registration	77,000	73,403
Information Service	203,000	228,672
Judicial	404,000	363,947
Lands and Surveys	2,484,000	2,249,387
Land Transport	79,000	57,651
Legal	148,000	144,337
Legal Aid	500	—
Local Authorities	1,757,000	1,648,162
Marine	1,544,000	1,572,057
Medical	5,706,000	5,192,820
Miscellaneous Services	2,107,000	2,007,379
Municipality of Kuching	502,000	496,340
Museum	155,000	161,657
Pensions and Gratuities	2,644,000	2,681,939
Posts and Telegraphs	2,563,000	2,365,946
Printing	626,000	569,222
Prisons	324,000	304,735
Public Works Department	2,089,000	1,510,640
Public Works Recurrent	3,554,500	3,769,266
Secretariat	828,000	721,986
Trade and Customs	1,336,000	1,378,727
Treasury	531,000	524,936
Debt Charges	213,000	—
Contribution to Capital Account	14,090,700	10,228,661
Interest on Loans	224,000	102,137
	<u>\$65,273,700</u>	<u>\$57,956,443</u>

### *Public Debt*

Public Debt comprised Debenture Bonds amounting to \$1,946,000. This included a small amount of the Bonds drawn but not redeemed during the year. In addition to this debt, there remained a further charge of \$15,698,400 in the Advances Account in anticipation of loans to be raised. The principal part of this latter sum was spent in the development of electricity through the Sarawak Electricity Supply Company, a company wholly owned by Government; in the provision of low cost housing in Kuching and Miri and housing loans to Civil Servants; in the purchase of shares in the Development Finance Corporation; and in the development of air services and telecommunications.

### *Customs Tariff*

The Customs Tariff is divided into two parts: import duties on tobacco, liquor, petroleum products, textiles, manufactured articles, and a variety of other commodities; and export duties on rubber, pepper, jelutong, illipe nuts, copra, damar, bauxite, edible birds' nests and sea produce. Towards the end of the year, a general revision of the tariff was made increasing the import duties on various articles and covering a wider range of articles. Later in the year legislation was passed providing for an export duty on ramin timber payable as from 1st February, 1960.

### *Excise Duty*

Excise duty is levied on locally manufactured arrack, certain wines, matches and petroleum products. In December, 1959, duty was charged on locally manufactured cigarettes at the rate of \$3.50 per pound and the duty on petroleum products was increased by 5 cents to 10 cents.

### *Stamp Duty*

Stamp duties are imposed on all documents required to be stamped under the provisions of the Stamp Ordinance (Cap. 17). They include duty on cheques, bills of exchange, promissory notes, agreements, contracts, affidavits, declarations of trust and instruments creating an annuity.

### *Income Tax*

Income Tax is charged, levied and collected under the Income Tax Ordinance (Cap. 30) but at present only on the Income of companies incorporated or registered under any law or charter in

force in Sarawak or elsewhere. A Commission was, however, appointed to investigate what system of direct taxation could with equity be applied to Sarawak and to make recommendations on the system to be adopted. At the moment on each dollar of chargeable income for the year of assessment, tax is levied at thirty per cent.

#### *Trade Licence Fees*

The Trade Licensing Ordinance, a corollary of the Income Tax Ordinance, extends direct taxation, in the form of trade licence fees, to certain businesses. Fees vary according to the nature and locality of the business and are at lower rates in rural areas.

For import and export trade businesses there is a graduated scale, based on the value of imports or exports. Rates range from a basic fee of \$60 for imports not exceeding \$10,000 or exports not exceeding \$30,000 to one per cent for imports exceeding \$450,000 or exports exceeding \$950,000. When the income from a business is charged with income tax, no trade licence fees are payable, but where an import or export business is carried on by a company liable to income tax on behalf of another firm not so liable with intent to evade the payment of trade licence fees by that firm, then the firm is deemed to have carried on the business of importing or exporting itself and is liable to pay trade licence fees accordingly.

#### *Miscellaneous Licences and Fees*

These include:—

- Rubber Dealers and Exporters Licences
- Pilotage Fees
- Registration of Deeds Fees
- Bankruptcy Fees
- Poisons Licences
- Fees for Importation of Animals
- Licences for Slaughter and Export of Cattle
- Licences for Collection of Subscriptions
- Auctioneers and Valuers Licences
- Sulphurous and Arsenical Ores Licences
- Pepper Dealers and Exporters Licences
- Hypodermic Syringes Licences
- Importation and Exportation of Corpses Licences
- Exhumation of Corpses Licences
- Printing Presses Licences

Church and Civil Marriage Licences  
Ice Licences  
Bills of Sale.

#### *Head and Door Tax*

Head tax at the rate of \$1 per adult male is paid by all Malays and some Dayaks. Most of the Dayak communities pay a "door" tax of \$1 per door, the "door" being the apartment in a Dayak longhouse occupied by a single family. These taxes are collected by the Local Authorities and the Government has in the past passed the bulk of the collection back to the collecting agents. Payment of these customary taxes will, however, shortly cease to be required in areas where Local Authorities have elected to introduce a system of rural house rating.

#### *Entertainment Tax*

A tax is charged on all payments for admission to entertainments.

#### *Estate Duty*

Estate Duty is charged upon all estates above \$1,000.

Rates are as follows:—

Where the value of the estate exceeds			
\$	1,000 but does not exceed	\$	3,000 1 per cent
\$	3,000	"	"
\$	5,000	"	"
\$	7,500	"	"
\$	10,000	"	"
\$	20,000	"	"
\$	40,000	"	"
\$	70,000	"	"
\$	100,000	"	"
\$	150,000	"	"
\$	200,000	"	"
\$	250,000	"	"
\$	300,000	"	"
\$	350,000	"	"
\$	400,000	"	"
\$	450,000	"	"
\$	500,000	"	"
\$	600,000	"	"
\$	700,000	"	"
\$	800,000	"	"

\$ 800,000 but does not exceed \$ 900,000	32	per cent
\$ 900,000 " " " "	\$1,000,000 33	" "
\$1,000,000 " " " "	\$1,500,000 34	" "
\$1,500,000 " " " "	\$2,000,000 35	" "
\$2,000,000 " " " "	\$2,500,000 36	" "
\$2,500,000 " " " "	\$3,000,000 37	" "
\$3,000,000 " " " "	\$4,000,000 38	" "
\$4,000,000 " " " "	\$5,000,000 39	" "
Over \$5,000,000	40	" "

## IV

---

### CURRENCY AND BANKING

#### *Currency*

**L**EGAL tender in Sarawak is composed of notes and coin issued by the Board of Commissioners of Currency, Malaya and British Borneo.

By virtue of the Currency Ordinance, 1951, Sarawak and British North Borneo (Chartered Company) notes and coins were withdrawn from circulation and ceased to be legal tender after 31st December, 1952.

The value of the Malayan dollar is two shillings and four pence sterling.

At the 31st December, 1959, there was \$55,768,547.25 of Malayan currency in circulation.

#### *Banking*

Banking facilities are provided by the Chartered Bank in Kuching, Sibul, Miri, Sarikei and Simanggang, the Hongkong and Shanghai Banking Corporation in Kuching and Sibul, and the Oversea Chinese Banking Corporation in Kuching. In addition there are four Chinese trading banks in Sarawak; the Bian Chiang Bank, the Kwong Lee Bank, the Wah Tat Bank and the Hock Hua Bank.

#### *Post Office Savings Bank*

The number of depositors in the Post Office Savings Bank at the end of 1959 was 8,484 as compared with 8,122 at the end of 1958. The amount of credit to depositors was \$3,757,133 as against \$3,581,049 in 1958.

During the year deposits \$1,230,248 exceeded withdrawals by \$92,581.

---

COMMERCE

SARAWAK is a primary producing and exporting country, and her income is, to a great extent, derived from the export of her produce. In exchange, she gets what she needs by importing foodstuffs and other consumer goods. Apart from the processing of some local products there is little industrial activity.

*The General Economy and its Main Characteristics*

Rubber, pepper and timber are the three major exports and the basis of the economy. The importance of these three products is shown by the fact that their export earnings for 1959 were \$144,036,527 or about 79 per cent of the total export earnings of the country, excluding the re-export of petroleum.

This dependence has advantages and penalties. Higher prices always lead to the export of greater quantities of these products, to an increase in the level of export earnings and revenue; and a depressed world market results in a slump, and reduced export earnings and revenue. In many cases, fluctuations in export earnings are very pronounced because of changes in world demand and supply.

There have been, indeed, substantial changes in world demand and prices. In demand, the general world trend has been expanding as might be expected from the rising economic activity in industrially advanced countries. The short-term fluctuations, arising to a considerable extent from major changes in inventory demand, have been pronounced and violent. There have also been structural changes in world demand. Technological progress has made possible economies in the use of certain raw materials and has produced synthetics or other substitutes for natural products—synthetic rubber for natural rubber, detergents for coconut oil.

### Minor Industrial Products

Two tobacco factories commenced operation in Sibul during the latter part of 1959, the first licensed venture of this kind in Sarawak. The capital subscribed is wholly local and on the whole the factories are efficiently run. By the end of the year over thirteen million cigarettes had been produced. The tariff revision which came into force on 7th December, 1959 made provision for a reduction of duty on imported unmanufactured tobacco and at the same time excise duty was levied on cigarettes (machine made).

Pioneer Industry status has been granted under the Pioneer Industries (Encouragement) Ordinance for the manufacture of:— Metal containers, plywood, knitted products, printed batek cloth, canvas rubber soled shoes and wooden venetian blinds.

### The Composition of Trade

Exports were valued at \$533,390,873 for 1959 compared with \$463,736,226 for 1958. These figures shown in comparison with 1958 are:—

	1959	1958
Petroleum	\$351,182,759	\$347,498,004
Rubber	94,898,236	60,430,509
Timber	31,040,471	19,568,542
Pepper	18,097,820	15,143,620
Illipe-nuts	19,976,395	7,119,738
Sago flour	2,399,769	2,345,107
Jelutong	1,557,072	1,633,611
Bauxite	3,842,537	1,836,780
Copra	54,694	70,179

The oil shown above is largely re-exported. Crude oil won in Brunei is piped to, processed and refined at the Lutong refinery in Sarawak. This, with the oil obtained from the Miri field in Sarawak valued for 1959 at \$2,882,230, was re-exported. The total exports, exclusive of petroleum re-exports but including Miri oil production, were valued at \$184,116,683.

*Sago flour* is now a duty free export. An export of 17,780 tons was valued at \$2,399,769 against 16,508 tons valued at \$2,345,107 in 1958. *Copra*. Eighty-four tons worth \$54,694 were



exported against 117.32 tons valued at \$70,179 in 1958. This crop is now largely absorbed by local vegetable oil factories. *Illipe-nuts* as an export are irregular and unpredictable but in 1959 a record crop of 22,006 tons valued at \$19,976,395 was exported against 6,205 tons valued at \$7,119,738 in 1958. *Jelutong* exports were 396 tons valued at \$1,557,072 against 482 tons valued at \$1,633,611 in 1958. *Timber* finds a ready market and is a most important item in the economy of Sarawak. 317,244 tons valued at \$31,040,471 were exported against 194,954 tons valued at \$19,568,542 in 1958.

*Bauxite* deposits in the Sematan area are being worked by Sematan Bauxite Limited, formed in 1956. Exports of bauxite of 202,925 tons valued at \$3,842,537 compared with 99,930 tons worth \$1,836,780 in 1958.

*Rubber.* Export earnings of rubber at \$94,898,236 were slightly more than half the total export earnings. Export duties on rubber, \$11,816,632, were about 70.4 per cent of the total export duties for the year. As a result of the stimulating effect of good prices towards the end of the year, the export of rubber continued to increase, 43,836 tons as against 38,542 tons in 1958. The average price of rubber increased from \$1,568 per ton in 1958 to \$2,165 per ton in 1959.

*Pepper.* The export of white pepper increased from 5,137 tons in 1958 to 6,562 tons in 1959 valued at \$15,616,475. The average price per ton increased from \$1,866 to \$2,380. Black pepper exported decreased from 4,589 tons in 1958 to 1,788 tons valued at \$2,481,345 in 1959. The price increased from \$1,116 per ton to \$1,388 per ton. The great difference in price between white pepper and black encourages growers to concentrate on white. Taking into consideration that for every fourteen piculs of black pepper only ten of white can be produced, the overall quantity of the 1959 crop has not materially decreased.

### *Imports*

Imports were valued at \$455,065,641 compared with \$433,786,897 for 1958. Excluding crude oil, \$294,192,760, they were \$160,872,881. Imports, largely foodstuffs and other consumer goods, increased by \$28,272,773 compared with 1958 due to increased export earnings.

These are the details:—

	1959	1958
Food, excluding rice	\$ 39,121,258	\$ 33,582,614
Rice	16,650,163	14,846,879
Beverages, alcoholic	2,509,708	1,914,731
Beverages, non-alcoholic	194,377	249,578
Cigarettes and tobacco	6,435,782	6,333,159
Crude materials, inedible, except fuels	6,784,864	4,285,262
Mineral fuels, lubricants and related materials	305,081,686	310,420,426
Animal and vegetable oils and fats	665,032	443,816
Chemicals	11,621,061	9,987,744
Manufactured goods classified chiefly by materials	25,068,198	20,521,108
Machinery and transport equipment	21,561,743	16,747,896
Miscellaneous manufactured goods	12,159,430	8,564,552
Miscellaneous transactions n.e.s.	7,212,339	5,940,845

The prices of certain basic foodstuffs compared as follows with those of 1958, the declared values per ton were:—

<i>Commodities</i>	1959	1958
Rice	\$ 329.81	\$ 387.90
Flour	308.49	332.98
Sugar	319.48	389.06
Salt	57.24	59.68
Milk	1,298.23	1,319.98

#### *Cargo Tonnage*

The tonnage discharged and loaded, including oil in bulk, was 6,494,813 compared with 5,392,760 for 1958:—

	tons	Discharged		Loaded	
		Cargo	Oil in bulk	Cargo	Oil in bulk
Kuching		122,847	18,176	49,562	—
Other 1st and 2nd Division Ports	„	—	—	201,347	—
Sibu	„	76,441	12,238	37,035	—
Sarikei	„	9,564	95	3,686	—
Binatang	„	5,706	—	2,656	—
Tanjong Mani	„	719	—	291,786	—
Miri	„	14,759	—	10,272	5,600,645
Baram	„	602	—	332	—
Bintulu	„	576	—	13,523	—
Limbang	„	2,861	—	4,722	—
Lawas	„	1,286	—	4,790	—
Sundar	„	462	—	8,125	—
<b>Total</b>	„	<b>235,823</b>	<b>30,509</b>	<b>627,836</b>	<b>5,600,645</b>

### Balance of Trade

The total volume of trade, including the value of crude oil imports from Brunei, increased by \$90,933,391 to \$988,456,514 from the 1958 total of \$897,523,123. Total volume of trade as shown below has steadily increased over the period 1950-59, if oil imports in crude form from Brunei and oil re-exports are taken into consideration. The visible trade balance for the country is favourable for the years shown below, imports include crude oil imports and exports include oil re-exports:—

Year	TOTAL TRADE 1950-59			
	Total Exports	Total Imports	Total Trade	Visible Balance of Trade
	\$	\$	\$	\$
1950	374,586,491	289,330,704	663,917,195	+ 85,255,787
1951	508,349,436	383,745,457	892,194,893	+ 124,603,979
1952	438,563,317	382,945,953	821,509,270	+ 55,617,364
1953	424,728,257	394,912,338	819,640,595	+ 29,815,919
1954	425,969,557	397,826,075	823,795,632	+ 28,143,482
1955	477,460,040	442,347,927	919,807,967	+ 35,112,113
1956	487,000,860	463,886,635	950,887,495	+ 23,114,225
1957	499,534,619	463,429,459	962,964,078	+ 36,105,160
1958	463,736,226	433,786,897	897,523,123	+ 29,949,329
1959	533,390,873	455,065,641	988,456,514	+ 78,325,232

Disregarding the import of crude oil from Brunei and the export and re-export of both crude and refined products the total volume of trade for 1959 was \$343,080,995, this shows a considerable increase over the figure for 1958 which was \$251,996,360. For the first time since 1955 the visible trade balance was favourable and showed a figure of \$21,335,233 as value of exports over imports. If the present prices for produce are maintained there is every hope of a continued favourable trade balance.

The following table shows exports and imports for the period 1950-59 together with the trade balance:—

## TOTAL TRADE 1950-59

Year	Total Exports† \$	Total Imports†† \$	Total Trade \$	Visible Balance of Trade \$
1950	150,026,931	90,251,992	241,278,923	+ 59,774,839
1951	212,193,376	120,931,843	333,125,219	+ 91,261,533
1952	140,196,527	112,261,699	252,458,226	+ 27,934,828
1953	134,237,277	130,951,594	265,188,871	+ 3,285,683
1954	136,013,176	135,479,268	271,492,444	+ 533,908
1955	159,797,145	148,891,946	308,689,091	+ 10,905,199
1956	134,054,507	150,147,126	284,201,633	- 16,092,619
1957	126,202,648	143,858,961	270,061,609	- 17,656,313
1958	119,399,005	132,600,108	251,996,360	- 13,201,103
1959	182,208,114	160,872,881	343,080,995	+ 21,335,233

†Exports above include oil produced from the Miri field which in 1959 was valued at \$2,882,230 but exclude oil re-exports, that is, oil produced in Brunei but piped to be refined at the Lutong refinery situated in Sarawak.

††Imports exclude petroleum imports from Brunei.

*Customs Revenue*

Customs revenue collections were \$38,058,996 against \$26,863,624 for 1958. Export duties were \$16,791,760 against \$9,274,404 for 1958. Import duties were \$20,016,252 against \$16,700,500 for 1958.

*Excise*

Excise revenue comes mainly from three distilleries, a match factory, and from local consumption of petroleum products in Miri. In addition excise on cigarettes (machine made) was introduced in December, 1959, but is not reflected in these figures. The revenue for 1959 was \$1,250,983 compared with \$888,720 in 1958.

*Tariff*

There was a tariff revision in December, 1959. There are quite a number of changes in rates of duty but few additions to the 1957 tariff. Generally duty rates have increased but in some instances there has been a reduction.

## VI

---

### LAND UTILISATION AND TENURE

SARAWAK is primarily an agricultural country with an overwhelming majority of the people landholders. Land is administered and alienated under the system of Registration of Title generally known as the Torrens System, and the development of the country must depend to a large extent upon the ability of the Land and Survey Department to keep up with an ever growing demand for land. Although Sarawak might be regarded as under-populated on an overall basis of persons per square mile, much of the country is at present unsuitable for agricultural development. It is therefore of the utmost importance that the alienation of Crown Land should be on a planned basis and that the best use should be made of agriculturally suitable land.

Another complication in the task of meeting the demand for stable agricultural development is the traditional method of land usage followed by the indigenous population. The traditional farming practice in Sarawak may be described as localised shifting cultivation. An area of jungle is cleared and planted with hill padi and other annual crops, and after one or two crops have been taken off the jungle is left to regenerate and a fresh area felled and planted for the following year. The person or community felling an area of virgin jungle and planting a crop may retain customary rights of user over the land and return to it for further cropping at a later date. Customary rights over land may be transferred within a community but not disposed of outside the community except by way of surrender to Government.

The cycle of cropping a particular piece of land varies with the total area available to the community but it is generally accepted that unless the cycle is to be so short as to check regeneration of the jungle, and so exhaust the land, an average of about sixty acres per family must be allowed.

In areas where the growth of population or the influx of other peoples has reduced the area available per family well below sixty acres per family the planting cycle becomes so short that coarse grasses and other weeds take over and the value of the land for the cultivation of padi is seriously reduced. However with hard work this land may be reclaimed for rubber and other tree crops providing a dense canopy.

It continues to be the policy of Government to respect native traditions and rights, but at the same time efforts are being made to encourage more efficient methods of agriculture and the consequent issue of titles over all occupied land. Native Customary Rights over land are rights of user only. They cannot be claimed over an area obviously greater than can be used by the holder and cannot be retained by a person or community which emigrates from the locality in which they are held. They are not transferable outside the community either for a period or permanently. They are therefore not incompatible with the principle that all land ultimately belongs to the State.

Land in Sarawak is classified as Mixed Zone Land over which any person may hold title, Native Area Land which may be occupied only by the indigenous peoples of Sarawak or by persons who are recognised as having been accepted as members of an indigenous native community and Interior Area Land where no title may be issued but where Native Customary Rights may be recognised. Land may also be declared Town Land, Suburban Land or Country Land but such declarations do not affect the classification of the land. Whatever the classification of the land it may still be held under Native Customary Rights, although new rights may be established only in respect of Interior Area Land. All Interior Area Land is Crown Land, but Native Area or Mixed Zone Lands may be Crown Land, alienated land or reserved land. Land may be reserved for a public purpose, as a forest or for the exclusive use of a nominated community.

The recognition of Native Customary Rights necessitates careful investigation before any land may be made available for alienation. This necessity reduces the speed at which land may be alienated. For the past few years the work of the Land and Survey Department has been severely handicapped by shortage

of staff to carry out these investigations into rights already in existence over areas which appear suitable for planned alienation. This shortage has become so serious that it has been accepted as impossible to bring the Department up to the necessary strength within a limited period, and during 1959 proposals to spread recruitment over a three year period were submitted and approved in principle. The first stage in the building up of an adequate and properly trained staff will commence at the beginning of 1960.

The encouragement offered by Government in the shape of subsidised rubber and coconut planting schemes, coupled with a growing awareness among the native communities that subsistence farming can never raise their standard of living has resulted in an increasing interest in permanent cultivation of land. A growing shortage of jungle land for shifting cultivation of cereal crops has increased this interest in land for permanent cultivation in some areas, but it must be many years before the utilisation of agricultural land in Sarawak can be accepted as satisfactory or land tenure regarded as really stable.

#### *Organisation*

All land in Sarawak is vested in the Crown but may be alienated to individuals under lease. Under the Land Code now in force leases of Crown Land are limited to a period of sixty years, but there are many existing leases issued under previous enactments for longer periods. There are also in existence a limited number of Occupation Tickets and other provisional titles, but these are being reduced by substitution of indefeasible titles following proper demarcation of boundaries and clarification of conditions of title where necessary. Land may also be occupied under licence for a limited period or for a specified purpose such as mining or the erection and use of a wharf.

The Director of Lands and Surveys, as Head of a combined Land and Survey Department, is responsible for the observance of the provisions of the Land Code. This responsibility includes the alienation of Crown Land subject to any direction by the Governor in Council, registration of all titles, rights and dispositions affecting land, all cadastral surveys whether for new alienations or mutations, the collection of land rents, premia,



licence fees and other revenue from land and mineral rights, trigonometrical and topographical surveys and mapping, town and country planning and valuations of land and property where Government interests are affected.

As Chief Inspector of Mines, the Director is also responsible for the administration of the Mining Ordinance as far as it affects land and Government rights and interests.

The Department consists of a Headquarters at Kuching and Divisional Offices and Land Registries at Kuching, Simanggang, Sibuluan and Miri. In addition provision is made for the preparation of deeds, the acceptance of applications for land and subsequent delivery of titles, and the acceptance of premia, rents and fees at all District and Sub-district Offices.

### *Legislation*

During 1959 the only legislation affecting land which was enacted was the Public Rights of Way Ordinance. This Ordinance provides for the creation by a Local Authority, with the approval of the Governor in Council, of Public Rights of Way over land, whether in public or private ownership or occupation, thus opening up interior areas by means of minor and feeder roads without embarking upon the expense of acquiring land for a road trace which in a few years may be shown to be wrongly sited having regard to the pattern which the development of the area has followed.

A start was made on the examination of the Land Code in the light of the experience gained by its use during 1958. A number of necessary amendments were listed but it was decided to review the whole Code rather than attempt to amend it piecemeal. Due to shortage of staff it proved impossible to make much progress during 1959 but it is hoped that the Code will be overhauled before the end of 1960.

### *Staff*

As previously indicated the Land and Survey Department is suffering from a shortage of staff and the need for in-service training is self-evident. During the latter half of 1959 approval was obtained for the recruitment of a limited number of officers in anticipation of the approval of the increases requested in the

1960 Estimates Proposals. A few clerks were engaged to assist in preparing data for rent revision but it proved very difficult to attract boys with sufficient educational qualifications for technical training at that time of the year.

A provisional Departmental Establishment was prepared and this was used as a basis for assessing the staff increases necessary when the estimates proposals for 1960 were prepared. Although considerable staff increases were approved for 1960, and the appointment of a Training Officer will allow a Departmental School to be established at the beginning of that year, it must be some years before the new recruits have obtained sufficient training and experience to make an appreciable impression on the backlog of work which has accumulated.

Between the retirement of Mr. C. B. Murray, O.B.E. early in March and the arrival of Mr. R. T. Russell at the end of August, the Deputy Director acted as Director.

At present two officers of the Department are undergoing training leading up to full professional qualifications. Both are holders of Colombo Plan scholarships and both are in New Zealand. One is studying for the Diploma in Valuation and the other for the Australasian Licensed Surveyors' Examination. Two other serving officers have enrolled with the New Zealand Technical College for a correspondence course in surveying. The courses were arranged as Colombo Plan scholarships and arrangements have also been made for these two officers to sit for the written papers of the Australasian Licensed Surveyors' Examination in Sarawak. Both have been successful in passing part of the examination. Three officers are studying for the Diploma in Surveying at the Kuala Lumpur Technical College and it is hoped at least some of them will eventually undertake further studies for full professional qualifications.

One of the greatest problems in implementing any scheme for staff increases is that of office accommodation. A new headquarters building is expected to be ready for occupation by the end of 1960. The removal of headquarters from the accommodation at present shared with the staff of the First Division will reduce overcrowding in the Divisional office to a certain extent, although even without any staff increases the office population

will still be of a greater density than one per 100 square feet of floor space. Similarly at Sibuluan and Miri the evacuation of Government office buildings by the Local Authorities will relieve but not cure overcrowding. Air-conditioning would reduce the effects of overcrowding to a large extent and greatly add to efficiency, particularly in the drawing offices. In the Fifth Division a Divisional sub-office has been established in a condemned building, but a move will be made into new offices when these are completed.

### *Agricultural Settlement*

Although every effort is made to anticipate the demands for permanent agricultural settlement, and to have land available for immediate alienation as part of a planned lay-out, this has not always been possible. Staff shortages coupled with a heavy and increasing demand for land to plant up under the Government rubber and coconut planting schemes, have greatly increased the difficulty of providing land as required. In addition there is a genuine shortage of land available within reasonable proximity of the larger centres where there is the greatest demand and where this demand is most vocal.

In the Serian-Balai Ringin area extensive land utilisation surveys have confirmed the view previously expressed by the Department that there is very little land which can be made available in that area for alienation. Under conditions of shifting cultivation the Dayaks in the area are already short of land and closer settlement can be carried out only at the speed at which they can effect a change-over to cash crops and the development of swamps into padi fields yielding yearly crops.

However there are indications that some 3,000 to 5,000 acres of land beyond Balai Ringin may be available for rubber planting, and soil surveys are being carried out in the area.

A scheme, to settle some 160 families on land which previously formed part of the Japanese Samarahan Estate, is in the course of preparation by the Agricultural Department. This scheme provides for each family to hold land for high yielding rubber, wet padi and a homestead. Assistance by the Land and Survey Department has been in the shape of a topographical survey and the supply of other information.

In the Second Division twice as many applications for land were received in 1959 as during 1958. The majority were for land to be planted with rubber or coconuts under Government Subsidy Schemes, and many were for the alienation under title of land already under Customary Rights. Two large blocks which it was proposed to develop as coconut holdings were found to be unsuitable when investigated in conjunction with the Agricultural Department, the main reason being the impossibility of keeping the land drained after shrinkage and consolidation of deep peat deposits following initial development. Large areas of Sarawak are covered by low lying swamps of deep peat and in many of them the water table is higher than the bottom of the peat. Since peat shrinks to a very small fraction of its original thickness after removal of surface water, ditches dug to drain many areas would eventually drain into rather than out of the swamps. Peat swamps therefore can be used for cultivation only after investigation has proved that there is some chance of their remaining permanently suitable for agriculture. A high rainfall, unreliability of wind power for pumping purposes and unavailability of other cheap sources of power, the necessity to remove all peat from earth to be used for the purpose of a dyke and the fact that the soils are generally not of sufficient fertility to warrant very expensive development all make it more economic to leave the majority of the peat swamps undeveloped. They are not unproductive since one of Sarawak's major exports is swamp timbers, notably ramin which enjoys a world wide demand.

In spite of the strengthening of the staff of the Third Division by the posting to Sibü of a fourth Senior Officer and a slight increase in the Junior Staff, no large area could be made available for alienation in that Division during 1959. Assessment of the agricultural potential of the vacant land in the Pasai-Siong area investigated for Native Rights previously gave very disappointing results and during 1959 investigations were carried out in the area to be served by the projected Oya Road. Investigations of Native Rights are still in progress but present indications are that some 5,000 acres will be made available for general alienation. In addition it is hoped that the provision of a road will encourage the Ibans in the area to take out title to some of their Customary land for rubber growing, and so commence the change-over to

more economic use of the land, enabling closer settlement to be effected in the future. By the end of the year customary rights had been extinguished over some 700 acres and the necessary planning for alienation was well advanced. At least 1,000 acres should be released for alienation early in 1960, but unfortunately this will go a very little way towards satisfying the demand.

Much time in the Third Division was spent in surveys for road resumptions for the Sarikei/Binatang Road. Due to a lack of engineering surveys well ahead of road construction, resumption requirements could be notified by the road engineers only in rather disjointed sections. This greatly increased the work of the Department in survey and acquisition proceedings. On several occasions survey parties had to be transferred urgently, the Valuer had to make special and urgent trips to Sibuluan, and other work had to be held over, while requests to the Governor in Council for acquisitions as a matter of urgency were prepared. However by the end of the year the route of the road had been fixed over its entire length with sufficient accuracy for a request to be prepared for the Governor in Council to declare a strip of land as likely to be required for public purposes under Section 47 of the Land Code.

In the Fourth and Fifth Divisions progress has been more satisfactory. The Sibiew block rubber planting scheme near Bintulu is nearing completion and all remaining titles will be issued early in the new year. Agreement has been reached regarding the extinguishment of some 1,000 acres of land in the Bakam area, and this scheme will be increased to about 10,000 acres if the Natural Resources Board agrees to a proposal to excise a small area from the Lambir Forest Reserve. Investigations are being carried out adjacent to the Sungai Bakong scheme to ascertain if an extension inland, into an area believed to be virgin jungle, is agriculturally feasible and desirable from a forestry point of view.

In the Limbang area some 2,000 acres have been made available for rubber planting but a scheme for the development of another approximately 1,500 acres has had to be shelved pending the clarification of the boundary between Sarawak and Brunei. The improvement of the Lawas/Trusan Road has resulted in an

increased demand for land, and this demand is being met. At Merapok near Lawas the alienation of some 1,300 acres of land for estate development has been approved and demarcation is being carried out.

Land totalling some 2,000 acres has been planned for alienation as smallholdings adjacent to Bintulu, Marudi and Lawas.

#### *Land Classification*

The only major classifications carried out during the year were in the Third Division where it was found necessary to reclassify some 4,731 acres of mixed zone land to native area land and in the Fifth Division where about 45,000 acres were classified as mixed zone land. It is expected that there will be fairly extensive classification into mixed zone during 1960 in order to allow alienation to be carried out in areas where native rights have been extinguished and the land can be made available for rubber planting.

During the year a considerable number of classifications of minor areas were carried out and action was taken to regularise some classifications affecting mixed zone land which had not received the approval of the Governor in Council in 1958.

The map facing page 40 shows the distribution of the various classes of land, but it must be remembered that the fact of its being classified as mixed zone or native area land does not mean that land is alienated or available for alienation. An appreciable proportion of mixed zone land is actually occupied under Customary rights.

#### *Settlement of Rights*

Settlement of Rights involves the demarcation of lands not properly demarcated in the past, the recording of all claims to land in the Settlement Area, investigation of such claims and the settlement of disputes, and final registration of titles. This is a lengthy process but is necessary in order to bring onto the Register land alienated prior to the introduction of Registration of Title. Considerable areas in the First and Third Divisions have already been dealt with, but much remains to be done. During 1959 preliminary demarcation and charting were completed of areas in the Second and Fifth Divisions, and a Settlement area

in the Fifth Division was declared. Settlement of Rights in this area is proceeding. However due to lack of senior staff, settlement in the Second Division cannot for the time being be proceeded with. Sporadic settlement of rights was effected with respect to individual holdings in all Divisions, but the area and number of lots dealt with was of necessity small.

#### *Applications for land*

A total of 6,458 applications for land affecting 35,418 acres were received during the year. These were distributed as follows:

<i>Purpose</i>	<i>No. of Applications</i>	<i>Acreage</i>
Buildings	332	208
Rubber	3,162	16,706
Coconuts	616	3,305
Pepper	148	429
Sago	531	4,510
Padi	529	2,118
Other Agriculture	929	4,013
Cattle Grazing	35	863
Miscellaneous	176	3,266
	Total	6,458
		35,418

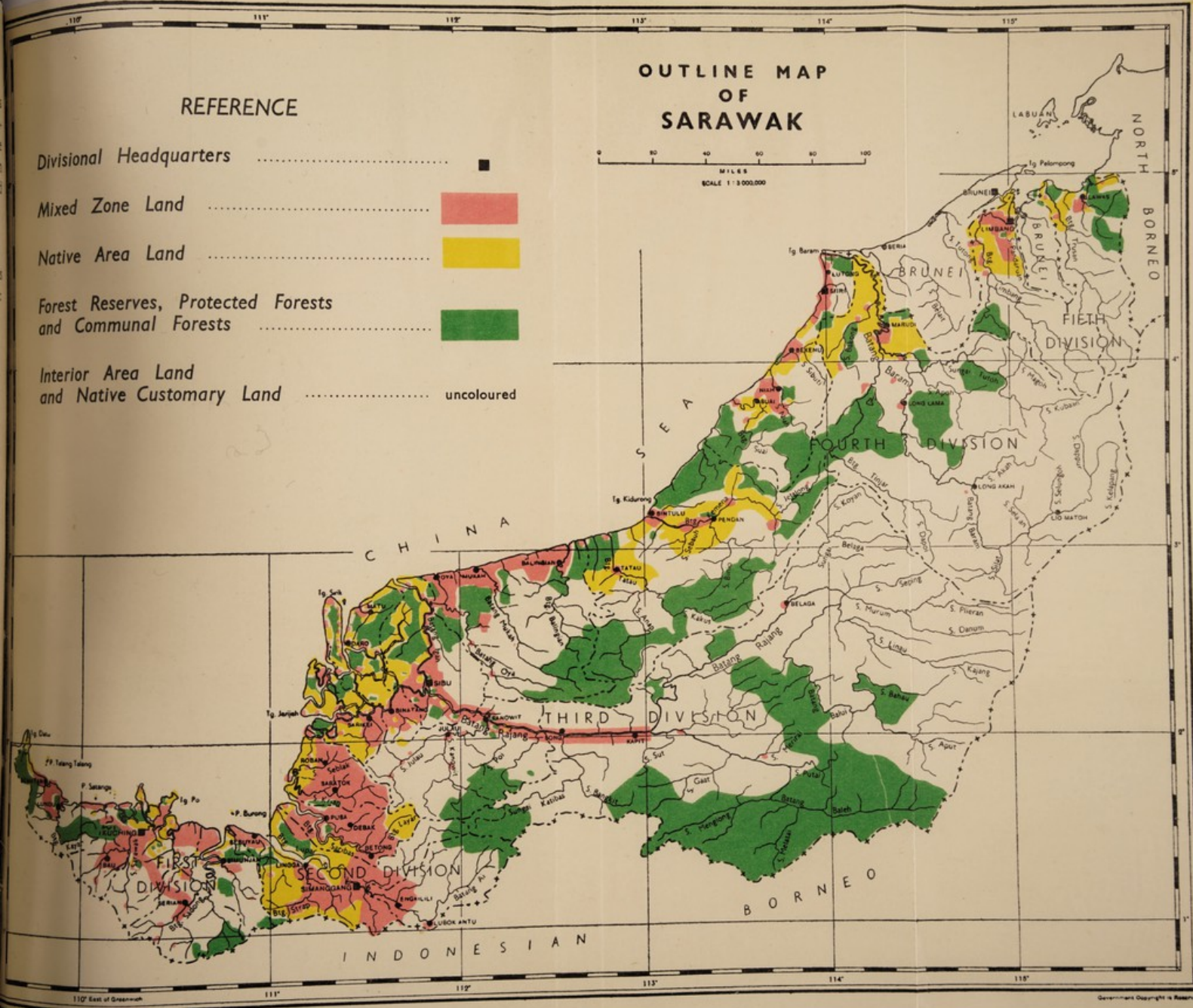
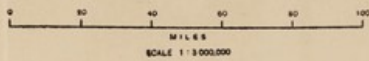
4,409 applications were dealt with during the year including 421 which were cancelled, withdrawn or disallowed. 7,205 applications remained to be deal with at the end of the year compared with 6,495 applications which were carried over from 1958.

The number of applications received during 1959 were greater than those received during 1958 by 1,071, an increase of approximately twenty per cent. Most of the increase is made up in applications for rubber and coconut land, the increase in the number of applications for coconut land, (189 to 616) being the most marked. The demand for coconut land is likely to increase. In spite of a very marked improvement in the price obtained for pepper the number of applications for pepper land has not increased very greatly. However the improvement in pepper prices occurred only towards the end of the year, and its effect on the demand for land has not yet had time to make itself felt.

# OUTLINE MAP OF SARAWAK

## REFERENCE

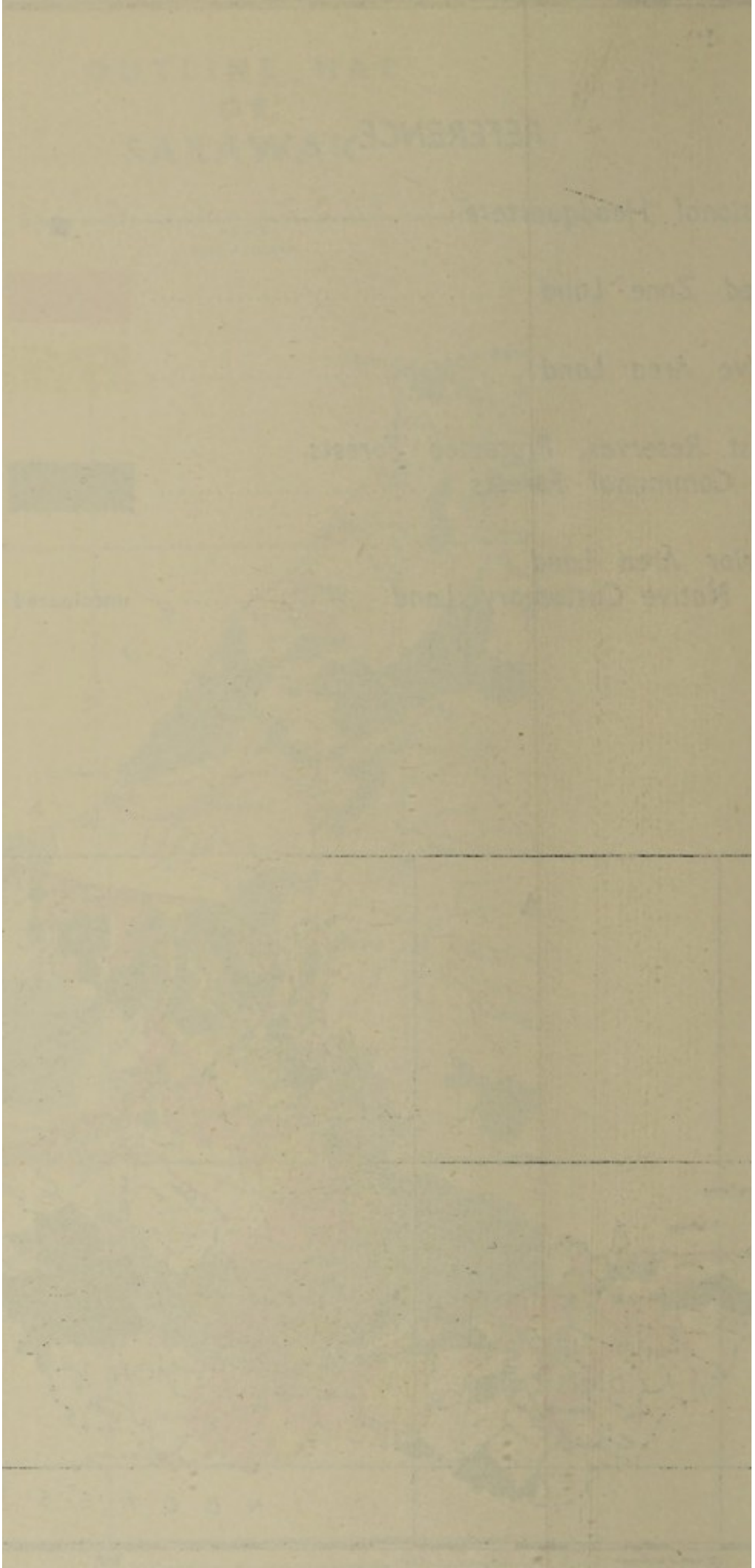
- Divisional Headquarters ..... ■
- Mixed Zone Land .....
- Native Area Land .....
- Forest Reserves, Protected Forests and Communal Forests .....
- Interior Area Land and Native Customary Land ..... uncoloured



Map Series No. 11. Designed and drawn by Land and Survey Dept., Sarawak January 1957.

Government Copyright in Reserve





Applications for building land fell considerably below the 539 received during 1958. It is not thought that this indicates a slump in building but rather the completion of various urban resettlement and slum clearing schemes.

### *Titles*

During the year 5,105 titles were issued and 1,844 were cancelled, making the total extant at the end of the year 159,861. The number of titles prepared and awaiting issue at the various District Offices at the end of the year was 1,840. Towards the end of the year the issue of titles for land to be alienated other than by auction was held up pending the clarification of the powers of the Director with respect to direct alienation. The matter will be referred to the Governor in Council and the necessary direction requested early in the new year.

### *Registration*

A total of 10,413 instruments affecting land were registered in the Land Registries at Kuching, Simanggang, Sibuluan and Miri during the year, of which 5,093 were registered at Sibuluan. The number of transfers registered totalled 4,734 while the number of charges amounted to 1,615. As in previous years the number of charges registered exceeded the number of releases from charge. However this excess appears to be less than in recent years and at Sibuluan the number of releases registered was greater than the number of charges by eighty-six. Although higher prices enjoyed by primary producers during 1959 may have had some effect there appears to be a definite relationship between urban building activities and the excess of charges over releases.

### *Surveys*

Since the Department is responsible for all cadastral surveys, both on initial alienation and subsequent mutation of lots, these surveys must remain the main work of the Survey Branch. However with a growing realisation of the necessity for topographical information both for town planning and rural development, the importance of large scale topographical mapping must increase.

Cadastral surveys for title are carried out by theodolite where the land is valuable and by prismatic compass and chain in the rural areas. These surveys are controlled by surveys of higher

order, which are in turn controlled by triangulation. Unfortunately the trigonometrical survey of the whole country is by no means complete and recalculation and readjustment of many of the control surveys will eventually be necessary. Theodolite resurvey of the title boundaries demarcated by compass and chain methods will also eventually be necessary as has been found in other countries, but for reasons of economy and expediency prismatic surveys for country titles must be continued for several years to come.

There are no modern titles with natural feature boundaries and the lot corners are marked by wooden pegs. These pegs are made of bilian wood, which is exceedingly hard and practically indestructible.

Surveys cannot be said to have kept pace with demand. This is largely due to the necessity for the very full investigation into customary rights called for under the new Land Code, but the establishment of organised training for surveyors and the recruitment of more staff will enable this gap to be closed.

The minor triangulation in the First and Fourth Divisions was extended during the year and fifteen new points established.

### *Mapping*

During the year Sarawak was visited by Brigadier M. Hotine, C.M.G., C.B.E., Director of Overseas Surveys, and problems connected with the completion of the 1:50,000 mapping of Sarawak were discussed. Largely as a result of this visit the Directorate has offered to provide a surveyor and tellurometer equipment for work in Sarawak during 1960 in order to provide mapping control in the extensive areas of the country where no such control is available.

Brigadier A. H. Dowson, O.B.E., A.D.C., Director of Military Surveys, Far East, accompanied by Lt. Col. W. H. Johns M.B.E., Assistant Director of Military Surveys, Far East, also visited Sarawak. The Directorate of Military Surveys has undertaken the production of a map of Kuching at a scale of 1:10,000 and at the end of the year arrangements had been made for a detachment of Sappers to visit Kuching in January in order to effect the necessary field checks on preliminary sheets.

During the year the R.A.F., operating from Singapore, photographed some 14,950 square miles of Sarawak territory. Most of this was high altitude cover, producing photographs at a scale of approximately 1:80,000 with low obliques at approximately 1:20,000. This photography will be used by the D.O.S. in producing 1:50,000 maps of Sarawak.

1:50,000 mapping of the Rajang/Bintulu Block was completed by the Directorate of Overseas Surveys and bulk supplies of all published sheets were received. This brings the total number of sheets published by the D.O.S. to 73, out of a total of 206 sheets covering the whole country.

In addition to the work being carried out by the D.O.S. the Department proceeded with the 1:125,000 preliminary mapping of areas not yet covered by the Directorate. This mapping takes the place of the old mapping at two miles to an inch, which is out of date and very sketchy. During 1959 one sheet was published, good progress was made on the fair drawing of three sheets, and three more sheets sent for the preparation of blue pulls preparatory to fair drawing. Fair drawings of five large scale town maps were completed and will be forwarded to Singapore for reproduction following completion of checking of two of them. These are preliminary maps and have been produced to fill an immediate demand pending the undertaking of final and more detailed mapping. A start has been made on the reduction of cadastral sheets to form the basis of a map of Kuching at a scale of four chains to an inch. Lack of available staff and overcrowded conditions very seriously hampered the efforts of the Drawing Office.

In October and November astro fixes were made at seven small airstrips in the Third, Fourth and Fifth Divisions. These astro fixes will provide very valuable mapping control in areas which were previously uncontrolled.

### *Valuation*

In 1954 a Valuation Section was set up under a Valuer loaned by the Land and Survey Department, New Zealand, for three years. The term of secondment was later extended and the original

Valuer returned to New Zealand in August, 1959. However the New Zealand Government agreed to provide a replacement for a further three years from mid-1959.

During the five years from 1954 sales data were collected and the section was organised to deal with assessments and valuations for the following purposes:—

- Revision of Land Rent
- Premia to be charged on alienation of land
- Land Acquisitions
- Probate
- Stamp Duties
- Government and semi-Government loans.

Since the Valuer was stationed in Kuching where there is generally more work for a Valuer than elsewhere, the collection and recording of sales data is more advanced in the First Division than in others. However good progress was made in other Divisions and adequate records in all centres are gradually being built up. It is obviously impossible to provide an efficient valuation service for the whole of Sarawak without the service of at least two more qualified valuers and proposals have been made accordingly.

During the year the Valuer made a total of eleven visits to centres outside Kuching, mainly in connection with rent revision and valuations for land acquisitions in connection with new roads.

Land values in respect of both town and country lands have remained steady throughout the year and there is no evidence as yet of their being affected by the extensive rent revisions which are being carried out. However there has been an easing in urban values at Sibu following the minor boom during 1957 and 1958. The recent considerable increases in pepper prices have not affected values of pepper land as yet and are not expected to have a great effect on land values generally, since the acreage is generally small and pepper land is not likely to change hands.

During the year index cards for over 15,000 titles were completed and 2,120 titles for Town and Suburban land were valued and assessed.

Valuations for land acquisitions in respect of road construction involved 130 properties covering thirteen miles of roading were carried out to a total value of \$177,424.

Valuations totalling \$1,989,308 were made on 242 properties for probate purposes. Due to shortage of staff and pressure of work probate valuations cannot be carried out as a service to the general public, but only where requested by the Probate Officer.

Stamp Duty valuations are largely a matter of routine although a large number of inspections were carried out in Kuching Town and Suburban areas where there were improvements on the land. 909 sales were investigated and valued at \$6,816,788.

The section dealt with seventy-five valuations and re-valuations in connection with applications by Government Officers for Government loans to build their own homes. The amount involved was \$1,159,425.

#### HOUSING AND TOWN PLANNING

##### *General*

As part of the planned expansion of the Department a Town and Country Planning Section will be formed as soon as the services of a qualified Town and Country Planner can be obtained. With this in view it was recommended and approved that an officer proceeding to the United Kingdom on vacation leave should be permitted to overstay his leave in order to attend a University Diploma Course in Town Planning. He is expected back in Sarawak at the end of 1960. In the meantime the Department has continued to assist landowners in the preparation of subdivision plans and to prepare lay-outs for the subdivision of Crown Land. In this work the services of senior members of the Staff whose professional qualifications exempt them from all but the Final examination of the Town Planning Institute are used.

A significant step towards the more economic use of land for Government building was the establishment in all Divisions of Boards for the siting of Government buildings. The fact that the Land and Survey Department should be consulted in this matter was recognised in the appointment of Divisional Superintendents to serve on these Boards.

*First Division*

In Kuching the clearing of the overcrowded and unplanned Kampong Java area entered its last phase with the agreement of the last twelve house owners to move to lots provided for them in the new suburb of Kampong Gita. The few lots of Crown Land available for alienation in this suburb are being taken up and there seems to be a case for an extension.

The construction of the new port facilities at Tanah Puteh has made good progress. Acquisition of the land for widening and realigning the main access road was completed without the necessity for any court hearing over compensation, and there has been much interest shown in the development of the area by private investors. Unfortunately the majority of landowners appear to favour ribbon development in the shape of shophouses along the main roads and pending the application of town planning legislation backed by a fully qualified Town Planner it is very difficult to stop this type of land utilisation.

Preliminary plans were prepared for the subdivision of land made available by the clearing of Kampong Java and for a fairly extensive area purchased at Sekama by Government for residential development some years ago. Finalisation of these plans must await decisions regarding main access roads into Kuching.

During the year firm but sympathetic action to resettle squatters found in occupation of Crown Land was continued with fair success, and it is hoped that by the end of 1960 the development of unalienated land will cease to be obstructed by the presence of unauthorised occupants.

The new shopping centre at Maong on the outskirts of Kuching, was completed early in the year and the occupants of a nearby slum of insanitary temporary shops were able to move into it. It was therefore possible to demolish the old buildings, which had long been an eyesore, a few days before the visit of the Duke of Edinburgh. A start was made in the establishment of a second suburban shopping centre with the alienation of seven shoplots at Batu Lintang. The establishment of this centre is not part of a resettlement scheme and the land was sold at public auction, fetching an average of \$8.27 per square feet.

Steady progress was made in the development of the rural centres. The township most likely to develop rapidly in the near future is Balai Ringin which is situated on the new road to Simanggang. The main Public Works Department road construction camp is sited here, but it will be moved further along the road trace during 1960. Land owners have been warned that land is likely to be required for development and plans are prepared for the new township which will be surveyed upon the evacuation of the construction camp.

Serian and Tebekang are other small towns which have received benefit from the new road and land is being provided for their expansion. However Gedong is likely to cease to exist with the development of Balai Ringin and it is planned to include provision for alienations to the Gedong shopkeepers in the new Balai Ringin lay-out. In the meantime only short term extensions to leases which expire, and three-year licences where it is desirable to regularise occupation, are issued.

An extension to both residential and business sections has been planned and is under survey action at Sematan, where the activities of the bauxite mine are encouraging development.

A number of residential *kampong* areas have been investigated and reserves provided where necessary. However towards the end of the year it was decided that the acquisition of land to enlarge *kampong* reserves would cease, and that it would be the policy of Government to encourage native residents of urban areas to take out title to land rather than continue to live in Communal Reserves.

### *Second Division*

The progress of the new road to Serian has resulted in an increased interest in land and also a marked rise in the number of cars on the roads. There has been considerable activity in Government building and the likelihood of the new water supply being completed in the near future has also aided the development of this town. A limited number of sites for commercial development were successfully auctioned and indications are that the auction of further shoplots will be justified during 1960.



The planning of small bazaars along the route of the new road is under consideration, but in this work the Department is to some extent hampered by lack of finality in the centreline of some sections of the road.

The expiry of the leases for one block of shoplots has enabled limited replanning at Sebuyau.

At Betong there have been successful auctions of land for five new shops and the expiry of short-term leases in respect of seven temporary restaurant and lock-up shop sites has enabled serious consideration to be given to the building of a Local Authority market. The matter is under consideration by the Local Authority and in the meantime the former occupants have been permitted to remain under licence.

The rebuilding of the Saratok bazaar is still held up as a result of the unwillingness of owners of existing shophouses to rebuild. However there are signs of increased prosperity for Saratok and a necessity to extend the bazaar may force the issue.

### *Third Division*

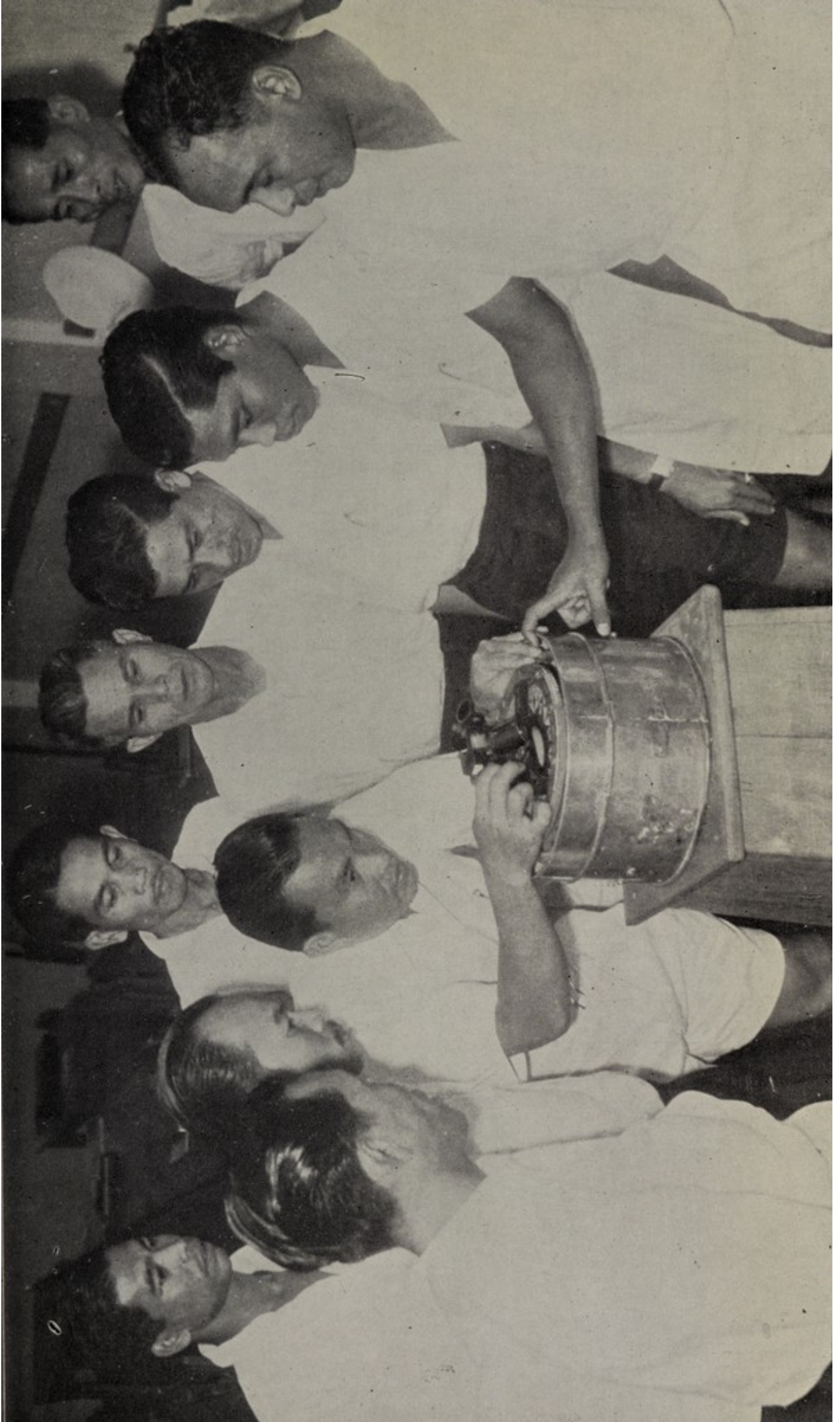
Following the auction of a considerable number of shoplots at Sibul over the past few years, building activities in this town have not been great. However some progress has been made with replanning in the centre of the town and an area at Pulau Babi adjacent to the shopping centre has been planned as launch landings and warehouses. The reclaiming of low lying land near the centre of the town will provide business sites in the near future and the expansion of water and electricity supplies in the suburbs have greatly added to the development of the town. A low-cost housing development is being undertaken by a private company but land which was acquired in 1957 for residential development by the Local Authority is still vacant. The Local Authority has now decided not to develop the area.

In the smaller towns of the Third Division contour surveys are being carried out at Kapit for town development purposes,

The newly opened School of Navigation in Kuching (*G.S.I.S.*)  
*Overleaf:*

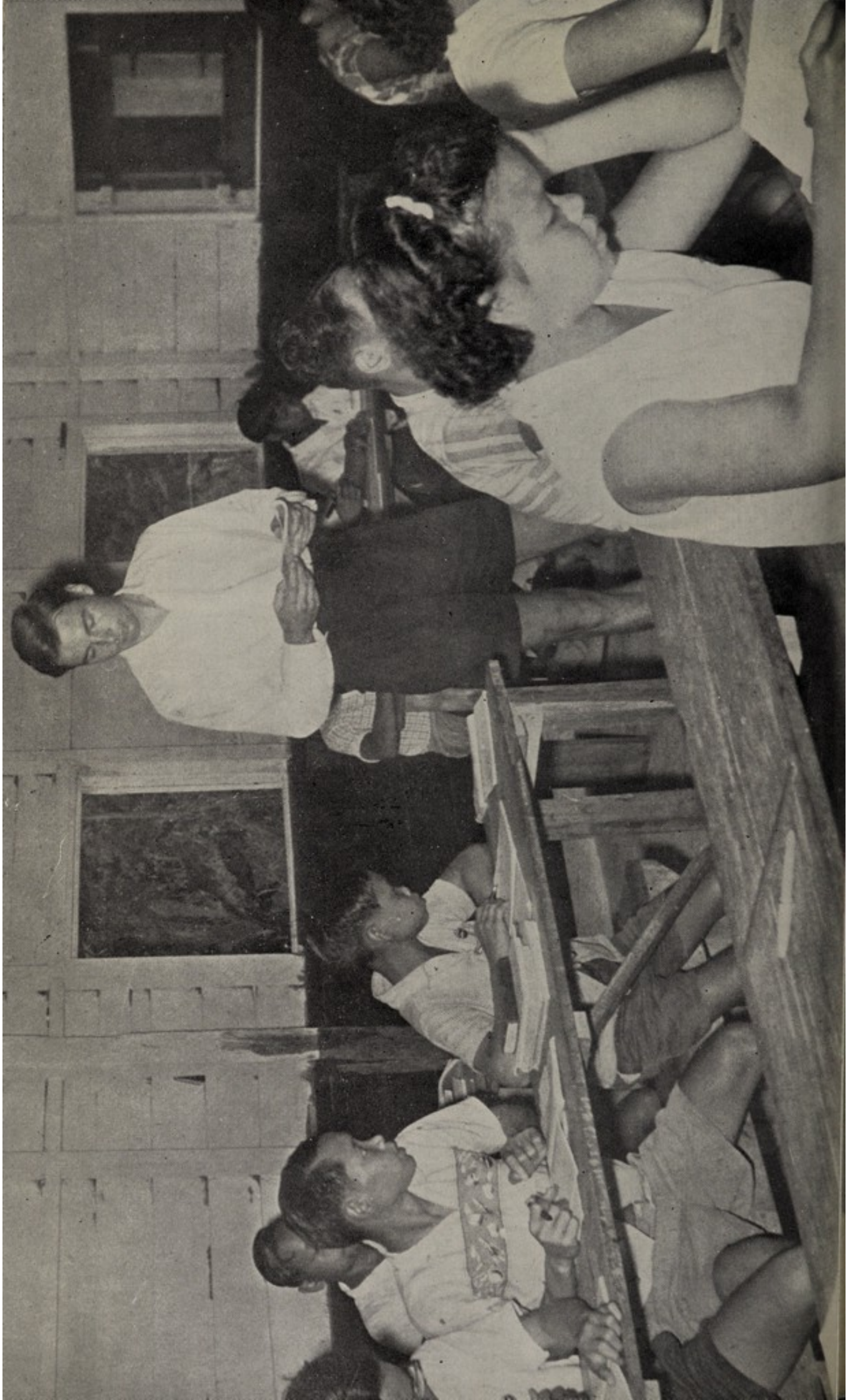
The Inter-Club Athletic Meeting took place in Kuching on 23rd May. (*Abang Razalee Jaya*)

During a Malay-Punan festival at Niah in August men play a game of climbing over each other. (*Sarawak Museum*)









and work has started on the improvement of the town's recreational facilities. At Binatang the rebuilding of three blocks of old wooden shophouses has been completed, greatly improving the appearance of the town from the river, improving the living conditions for a large proportion of the traders and at the same time reducing the fire risk.

In many Districts the Local Authorities applied for land, particularly for schools. These applications were in respect of land already occupied by village school-houses as well as for new buildings. A close watch had to be kept on these applications in order to ensure that the land alienated would not be likely to be too small for future needs. Several applications had to be referred back for reconsideration.

#### *Fourth Division*

The development of Miri is to some extent complicated by the presence of the Miri Oilfield. Much of the land within and surrounding the town area is subject to rights enjoyed by the Oil Company under the terms of its Lease. The Company has been most co-operative in releasing areas for unrestricted alienation and development, but must retain its rights over land likely to be wanted for the exploitation of the field, and as a result Miri cannot be regarded as anything like a compact unit for planning and development purposes. During the year the Company released some 350 acres of land at Krokop. Much of the land had already been developed under restricted permits to occupy and the release from restrictions by the Company will allow the issue of title and more secure tenure. Slum clearance at Kampongs China and Dagang is entering its final phase.

The development of Bintulu has been accelerated by activities connected with the Oil Company's proposed offshore drilling at the Cochrane Shoals. However these activities have accelerated rather than initiated the growth of Bintulu, and it is not thought the town is experiencing a possibly unhealthy boom. The success of the Sibiew Rubber Planting Scheme should ensure the continued growth of Bintulu. During the year the airstrip was extended by the Oil Company and facilities for the operation of helicopters in connection with offshore drilling were provided. Auctions of shop and residential lots were successfully carried out and a

Students at work at the Padawan Community Development Centre in the First Division. (G.S.I.S.)

much-needed amenity was supplied by the opening of a hotel and cinema more in keeping with the status of the town. Land adjoining the airstrip has been planned to provide industrial and residential lots, recreation and scenic reserves and mixed farming lots for smallholders. The layout has been approved in principle and survey should follow shortly. Unfortunately the airstrip at Bintulu lies parallel with the river and on the landward side of the business part of the town, leaving a very restricted strip between the airstrip and the river for development. Access from the hinterland to the wharves and bazaar therefore can only be effected by a detour round the end of the airstrip or by cutting across it. The existence of swamp and a river makes it impracticable either to extend the airstrip or to build a road to the East of the present strip, so any road or extension of the airstrip must be to the West and towards the sea. The airstrip was built during the war for military purposes and unfortunately neither the post-war development of aircraft nor of the township were anticipated. Bintulu will possibly grow into the main commercial centre of the Fourth Division, particularly if its mineral resources are developed, and plans for the eventual resiting of the airstrip would appear prudent.

Residential lots made available by replanning and lengthy negotiations for exchanges of land two years ago were auctioned at Marudi and during the year some 500 acres of forest reserve land was planned as small holdings for mixed farming, following the agreement of the Forests Department to release the land. This land is very poor from an agricultural point of view but its alienation would allow very much needed room for expansion. The proposed plan for the development of this area will be submitted to Government at the beginning of 1960.

Plans for the extension of Tatau, Niah and Bekenu were prepared.

#### *Fifth Division*

The main urban development was at Lawas where the building of shophouses in the new commercial area made good progress. Before the end of 1960 the unplanned temporary shophouses, built to replace buildings destroyed during the war, will be demolished. Negotiations with owners of residential land situated between the river and the new bazaar appear

to be reaching their final stage, and it would appear likely that within the next two years this unplanned slum will also go. An area of about 1,000 acres is under survey adjacent to the bazaar to provide for smallholders. Road development in the hinterland of Lawas, and the success of quests for land for agricultural development are expected to result in the growth of this town.

At Limbang earthworks for the extension of the bazaar area had not reached the stage where land could be offered at auction. Development of this town must to a large extent be linked with the investigation of rights now in progress, particularly since the area under investigation includes potential residential land in the outskirts of the town.



## VII

---

### PRODUCTION

#### AGRICULTURE

UPWARDS of half the national income is derived from agriculture and considerably more than two thirds of the population is engaged in this industry. It is estimated that of the total area of 47,500 square miles, some 2,699 square miles (6 per cent) are under settled cultivation, 8,724 square miles (18 per cent) under shifting cultivation and 36,079 square miles (76 per cent) under forest of all types. The agricultural economy is weakly diversified and in the interior shifting cultivation of dry padi, or more properly speaking bush fallow, is the predominant system of farming with the level of production frequently around or below subsistence level. Except for five large rubber estates smallholdings are the basis of the country's agriculture. Export cash crops in order of importance are rubber, pepper, sago and coconut. Rice is the staple food of Sarawak but the combined production of both wet and dry varieties is still well below the total requirements of the population. Supplements in the form of tapioca, sweet potatoes, maize and yams are widely grown and together with imported wheat flour (in the form of bread in the towns) are all in normal use.

The advantage of unified control in the closely related services of agriculture, veterinary services and fresh-water fisheries is recognised and responsibility for all these has been vested in the Department of Agriculture. Agricultural policy remains unchanged and seeks—

- (a) while maintaining fertility, to develop, intensify and diversify agriculture, paying particular regard to food supplies, especially rice and all forms of animal protein;
- (b) to increase exports of cash crops, particularly pepper, rubber, coconut and sago;
- (c) to introduce and develop new crops shown by experimentation to be of economic significance, and
- (d) to promote and assist in the sound agricultural development of new lands.

The 1959-63 Development Plan, approved by Council Negri in August, places strong emphasis on economic development and of the total sum approved economic schemes receive \$77,102,741 or 61.7 per cent. Second only to Communications, for which the sum of \$41,123,097 or 35.8 per cent has been provided, is Agriculture which has been given \$30,855,144 or 26.8 per cent. Thus, the stage is set for agricultural development in Sarawak on a hitherto unprecedented scale. Indirectly by the provision of improved communications and directly through expanded research programmes on soils, pepper and rice, as well as major economic schemes relating to rubber, coconuts and rice and subsidiary projects such as veterinary services, fresh-water fisheries, rural education and a host of vastly improved general services for farmers. The largest economic project in the Development Plan is the Rubber Planting Scheme with an anticipated expenditure of \$21,081,000 during the five-year period. Apart from the obvious objectives of rehabilitating the rubber industry and increasing future exports, the scheme should have far-reaching effect on the future pattern of agricultural development in as much as it represents the first major step to break the vicious circle of subsistence dry padi farming which for generations has slowed down worthwhile development.

Farmers generally enjoyed a prosperous year resulting from a combination of good crops and a steep rise in the prices of rubber and pepper. Nevertheless, income accruing to primary producers could have been greatly augmented had not the quality of the exported produce been so low. Because of these prevailing low standards action has been taken in two directions in an endeavour to improve matters. This has been done firstly by demonstrating Departmentally the use of correct processing techniques and emphasising the value of grading, and secondly through the Marketing Advisory Committee to improve marketing facilities. To date the latter has concerned itself principally with pepper.

One of the functions of the Sarawak Development Finance Corporation is to provide or facilitate the grant of financial credit for agricultural undertakings. So far, loans amounting to \$98,800 have been arranged for farmers and \$103,123 has been lent to pepper exporters for the storage of bulk pepper prior to shipment.

*Rubber*

There is, in Sarawak, more interest manifest in rubber than any other crop and in 1959, excluding petroleum and petroleum products, rubber alone accounted for more than 52 per cent of the total value of exports. Roughly 80 per cent of the estimated planted acreage of 300,000 acres consists of old, unselected, seedling trees fast approaching the end of economic productivity. The only five estates of over 1,000 acres account for a mere 13,285 acres of the total acreage. The rubber produced is marketed in the form of sheet and blanket crepe through merchants operating also as licensed rubber dealers, of whom there were 2,614 in addition to 93 registered exporters and four owner-exporters. Production amounted to 43,929 tons of rubber, valued at \$94,898,236, being roughly 5,000 tons greater than in 1958 and the third highest total since the war. Prices fluctuated but the general trend was one of steady improvement. Taking the prices gazetted for the evaluation of duty as a guide, No. 1 Ribbed Smoked Sheet fetched \$97.27 per picul on 5th January and had reached \$150.73 by 7th December. On 28th December the price had fallen again to \$138.93 but was still considered satisfactory.

The Rubber Ordinance, 1958, which came into force on 1st January, 1959, amends and consolidates existing laws, regulates the planting of rubber, and the production, sale, import and export of rubber products. An important result of this Ordinance was the abolition of rubber planting permits, except in respect of any land suitable for the cultivation of wet padi or land considered necessary to conserve hill padi crops held under customary tenure by native farmers.

The Rubber Planting Scheme was first described in the 1956 Annual Report and further enlarged upon in subsequent Reports. Such has been the interest shown in it by all races that the target acreage to be planted by the end of 1963 has been raised to 90,000 acres. At the same time, as a means of obtaining additional funds to help meet the increased cost, a cess of two cents per pound on all rubber exported became effective from 1st January, 1959. All funds accruing from the cess are to be devoted exclusively to the furtherance of the rubber industry. Amendments to the Rules of the Scheme have also been made,

the most important of which were to increase the subsidy for new planting from \$200 to \$250 per acre and to allow small cash payments to be made to farmers during the critical first two years of planting. The replanting subsidy remains at \$450 per acre.

Approval was given to smallholders and estates to plant 16,096 acres and 232 acres, and to replant 1,025 acres and 1,072 acres respectively. Thus from the inception of the scheme in 1956 approvals in respect of smallholders and estates for new-planting and replanting make an aggregate of 52,365 acres. By the end of the year 36,000 acres of high-yielding rubber had been successfully planted of which the estate total, however, was only 806 acres. During the same period cash distributions for new planting have amounted to \$104,382 and to \$340,658 for replanting. The distribution of fertilisers on a tender system continued to operate extremely well and acknowledgment is made of the valuable assistance rendered by the firms concerned. The number of distributors in the field was increased from thirty-four to fifty. Approved applicants received during 1959 a total of 1,712 tons of fertiliser, 7,930-lbs. of Dowpon, 2,600-lbs. of Sodium Chlorate and 646 rolls of barbed wire.

The phenomenal progress of the scheme to date is bringing in its train mounting staffing problems to which there appears to be no ready solution if the present rate of progress and high standards are to be maintained. The lack of good communications and the disproportionately high percentage (60 per cent) of holdings under five acres are contributory factors. It is not a straight-forward matter of recruitment, since men with sufficient experience are just not available in the numbers required. Whilst, therefore, more and more emphasis continues to be directed to staff training, a time lag must still elapse before the new recruits become competent in their duties, and in a major economic scheme such as this where speed is a matter of the greatest importance a limit must be placed on the time and number of experienced staff given over to training duties. A further cause for concern is the apparent inability of many farmers to appreciate the urgency of the scheme, as is shown by their failure to commence planting operations within a reasonable period of receiving approval. It has therefore been necessary

under the Revised Rules to provide that unless field operations commence within a year of receiving approval, the application will be cancelled, although the applicant will retain the right to reapply at a later date. The foregoing does not apply to the majority of applicants and it is pleasing to record the increased participation and general high standards of work now in evidence by Dayak farmers; in particular, the Land Dayaks of the First Division merit special mention.

Clonal stumps to a total of 2,573,000 were distributed, many having to travel for up to ten days before being planted in the field; 13,591 basketed germinated clonal seeds were also issued. Budding operations in the field absorbed 22,857 yards of approved budwood clones from departmental nurseries, which totalled 10½ acres either in production or in the course of being brought into production. All departmental and known commercial budwood nurseries were checked for purity by an expert from the Rubber Research Institute, Malaya.

Sarawak is wholly dependent upon Malaya for its supplies of clonal seed and a total of 4,400,000 seeds was imported in anticipation of 1960 planting requirements. From these seeds, 2,856,120 seedlings were successfully established in departmental nurseries, situated mainly in the First Division. Over the years the production costs of clonal stumps have gradually been reduced, largely as a result of improved nursery management. Unfortunately, this has been more than offset by the imposition of an export tax on clonal seed by the Malayan Government. Initially introduced in 1958 at three cents per seed the rate of tax was raised in November to ten cents per seed resulting, even under the most favourable conditions, in an increase in the cost of clonal seedlings of roughly 60 per cent.

#### *Samarahan Estate*

Although full approval for the plan to resettle part of the Rubber Fund Estate at Samarahan with smallholders was still awaited, the replanting of 200 acres of high-yielding rubber and the drainage and irrigation works for 300 acres of wet padi, both areas being part of the plan, progressed satisfactorily.

#### *Rice*

The export of rice and padi (unhulled rice) is prohibited. In a number of districts farmers are dependent on the

sale of padi/rice for their chief source of cash, and as a measure of support Government offers a guaranteed price for padi. For the 1958-59 and 1959-60 seasons this was respectively \$14.50 and \$13.50 per picul of padi delivered to specified Government purchasing centres. Government purchased a total of 1,989 tons of padi.

It was estimated that over 270,000 acres of padi were harvested in 1959; of this total, 200,000 acres were planted dry, principally by Dayaks. Traditionally this dry padi is grown on a system of shifting cultivation but restrictions on the felling of virgin jungle and on migration have, over the years, resulted in it now being generally grown on a bush fallow system. The average yield in 1959 was estimated as 116 *gantangs* per acre. The estimated average yield from some 70,000 acres of wet padi was 225 *gantangs* per acre. This low figure is a reflection on the poor general standard of cultivation and on the almost complete lack of any drainage and irrigation works. While these figures must be treated with some reserve it is interesting to note that estimates of acreage and yield indicate Sarawak as having produced over 62,000 tons of rice in 1959.

During 1959, 50,484 tons of rice were imported—the highest figure since the war—and this undoubtedly indicates a greater amount and freer movement of cash in circulation.

The mid-season prospects for the 1960 harvest were generally satisfactory in spite of poor burns for the dry padi in parts of the Third and Fifth Divisions. The most widespread and serious pests were again army-worm (*spodoptera mauritia*), and rats. There has been a steady increase in the use made of the Department of Agriculture's free pest control service.

In the 1959-63 Development Plan a sum of \$250,000 has been set aside for the express purpose of improving water control in potential and existing wet padi areas by providing financial assistance to communities where the element of self-help is evident. This is a service ancillary to the Drainage and Irrigation Section of the Public Works Department. A useful start was made in 1959 and improvements were affected, in sixteen areas, to 1,718 acres at a cost of \$10,666. Dayaks in the Second and Third Divisions were prominent in this work.

A committee was convened during the latter part of 1959

to study policy in regard to stock-piling of rice and padi and associated control measures.

### Pepper

Pepper is second in importance to rubber as a cash crop. There is no accurate information available as to the acreage planted but by indirect calculation it is believed to be between 6,000 and 7,000 acres. Although the pre-war yield of dry black pepper from a fully mature vine was said to be 8-12 lbs., in 1959 the average was estimated as being less than 6 lbs., largely as a result of years of semi-intensive cultivation. The entire production of pepper is from smallholdings among many of which a system of monoculture is practised. During recent years, however, when prices have been at a low level there has been a tendency to replant a part of the holding with rubber and in others to diversify with vegetable cultivation and pig raising.

Prices rose slowly if steadily during the first half of 1959 but thereafter the rise was steep as it became increasingly obvious that existing supplies could not meet world demand. Pepper values quoted by the Customs Department for assessment of duty showed white and black to be standing respectively at \$111 and \$63.82 per picul on the 5th January and \$212.74 and \$146.04 per picul on the 28th December. The return to primary producers at these prices was unknown since many variables such as quality, financial indebtedness to dealers and distance from market could not be accurately assessed.

While the effect of the price rise undoubtedly has been to stimulate new planting, nevertheless, because abandonment of old gardens has outpaced new planting for several years, it is probable that the productive area in 1960 will be smaller than in 1959. Exports continued to decline in 1959 as shown in the following table:—

WORLD EXPORTS OF PEPPER IN TONS

	1937								
	1939	1952	1953	1954	1955	1956	1957	1958	1959
SARAWAK	2,700	4,000	9,000	15,000	16,300	19,800	13,750	9,700	8,340
INDIA	1,150	13,200	11,600	15,400	12,350	12,200	15,250	14,100	13,600*
INDONESIA	50,900	6,800	7,500	12,450	13,250	18,600	15,000*	16,500*	13,500*
REST	4,850	1,300	1,000	800	1,500	1,300	1,250*	2,000*	2,000*
	59,600	25,300	29,100	43,650	43,400	51,900	45,250	42,300	37,440

\* — estimated.

It should be noted that the 1959 Sarawak tonnage expressed in the above table is that for combined white and black, equivalent to 10,973 tons had only black been shipped. Price differential between white and black determines the relative exports of each and these in 1959 were in the proportion of 78.5 per cent : 21.5 per cent. The bulk of Sarawak's pepper shipments went to Singapore, some 82 per cent compared with 70 per cent in 1958; of the remainder Germany and the United Kingdom took 7 per cent and 6.4 per cent respectively while the balance went in small parcels to the United States of America, New Zealand, Canada, South Africa, Italy, the Netherlands and Japan.

Two significant measures to put the industry on a better footing were taken in 1959. Firstly, machinery was installed at Sarikei, one of the main ports, enabling exporters in the Rejang area to dry, clean and grade pepper by modern mechanical methods to the highest standards required by consuming markets. Secondly, by providing storage and short-term credit facilities the Sarawak Development Finance Corporation encouraged exporters to release the crop on the most favourable terms.

Foot rot disease of pepper, caused by a species of *phytophthora*, continued in a quiescent phase.

### *Sago*

It is estimated that there are roughly 150,000 acres under sago mainly in the Mukah, Oya and Dalat districts of the Third Division, although there are also large areas in parts of the Second Division. No detailed information is available as to varieties, age and the general condition of palms, but it is believed that exports of flour are now more in accord with regeneration and replanting rates than during the boom period 1947-1950. Production methods remained primitive resulting, by modern standards, in a low quality flour which in most cases required further dressing after arrival at destination.

The Sago Flour Control Export Ordinance was introduced in 1948 to prevent the export of adulterated or low grade sago flour and a system of inspection prior to export was established. From numerous trade complaints received it has been apparent for some time that the inspection system was not serving its purpose. There appears to be little point in giving legal sanction to an export standard which could not in practice be enforced and



since in order to safeguard the interests of both exporter and buyer, a system of established marks under which sago flour is exported is in common use, the Sago Flour Control Export Ordinance was repealed in December.

Exports of sago flour amounted to 17,779 tons compared with 16,508 tons in 1958.

### *Coconut*

The total acreage under coconut is put variously between 25,000 and 50,000 acres with the largest acreage to be found in the First Division. There are no large estates. Since to both the domestic and export markets the coconut is of great potential importance, the many areas within the country where prices for coconut products are highly inflated, as well as the moribund export copra trade, were considered matters of such serious consequence that a subsidised Coconut Planting Scheme, to plant up 10,000 acres during the 1959-63 Development Plan, was begun in January. The scheme value is set provisionally at \$1,200,000 but should the response be greater than anticipated additional funds may be made available. The aim of the scheme is twofold, firstly to encourage householders to plant up to fifteen palms in the vicinity of their houses to meet domestic needs and secondly, in holdings of 5-10 acres, to stimulate diversification by using the coconut as a cash crop, i.e. by the sale of copra. Planting material is supplied free and a cash grant paid of \$2.00 per palm over a period of three years if not less than sixteen palms are planted and maintenance is in accordance with good husbandry practice. All races are participating in the scheme but the Malays are in the majority. In establishing seedling nurseries in all Divisions the movement of some 300,000 seed nuts was involved and the assistance given by the Marine Department in this work which mainly involves transport by sea, was invaluable. To date, at a cost of \$104,118, 44,293 seedling palms have been planted in the vicinity of houses (equivalent to 886 acres) and 65,395 in small holdings totalling 1,308 acres.

The most serious pest of the coconut palm is still the Rhinoceros beetle.

### *Minor Crops*

Maize, sweet potatoes, tapioca and yams are all widely grown as rice supplements but always on a small scale. Except

by Chinese market gardeners near the larger towns, vegetables are neither intensively nor extensively grown, although it is common practice for dry padi to be interplanted with early maturing pulses and gourds. In Miri a considerable export trade in fresh vegetables to Brunei has been developed and continued to expand in 1959. Only in the First Division is small scale off-season cropping of wet padi areas with vegetables and food crops practised to any extent. Water-melon is an important seasonal cash crop in coastal districts as is the pineapple in areas where peat predominates. Bananas are always plentiful and if markets were available the acreage under this valuable crop could be usefully extended. The 1958-59 fruit season was exceptionally good and in direct contrast to the 1959-60 season which has proved correspondingly bad.

Local fruits are planted in mixed cultivation in most villages but because quality is generally poor the demand for high quality planting material of the economic fruits was heavy and far exceeded supplies. It is for this reason that the Department attaches great importance and the highest priority to the production and distribution of high quality fruit planting material. Of the total of 6,674 plants sold to the public, budded rambutans numbered 1,739 and durians, 421. Mandarin orange groves are springing up in all divisions and while the principal centres of production are still Binatang and Sarikei in the Third Division, a considerable acreage has been planted in the First and Second Divisions.

The wide interest shown in coffee in recent years was sustained and 28,667 seedlings were issued free to planters. This crop, especially in the typical Dayak farm economy, can provide a useful means to enhance income. Although local interest favours the *Robusta* type the higher yield and greater hardiness of *Liberica* would appear to justify the almost exclusive planting of the latter.

Tobacco is another crop in which a steady increased interest has been shown. The main centres of production are in the Third and Fourth Divisions where, at Sibuh and Niah, small tobacco factories have been erected. It is estimated that the acreage grown in the Fourth Division was of the order of 200 acres. Trial samples of tobacco seed known as Virginia Gold were obtained from the Department of Agriculture, Australia,

and produced a leaf which, while possibly not of the highest quality, fetched a substantial bonus compared with the local product. The search for, and import of seed suitable for Sarawak conditions is an obvious means towards quality improvement of the local product.

Other crops grown on a small scale are derris, kapok, nipah, arecanut, sireh, ginger, turmeric and chilli.

#### *Research and Extension*

The planned reorganisation of the Department of Agriculture into four main Branches—Research, Extension, Rubber and Veterinary Services—and the resultant expansion of responsibilities and activities continued most satisfactorily and was well ahead of schedule. Within the Research Branch, divisions of Soil Science, Rice Agronomy, Pepper Agronomy and Plant Pathology have been established and the recent generous gift of \$1,167,000 under Colonial Development and Welfare Research Scheme No. 1004 enabled a greatly expanded and much more comprehensive research programme to be drawn up than was originally envisaged. Since the soils laboratory was opened in November, 1958, the Soils Division has surveyed a total of 41,000 acres, including certain areas thought to be potentially suitable for the development of additional export cash crops.

The importance of intensifying rice production needs no emphasis and with this object in view a research programme covering fertiliser, variety and cultural trials on both wet and dry padi was commenced in the 1959-60 season.

As part of the investigations on pepper an economic survey was completed in April but, while providing useful basic information about the industry, it unfortunately did not furnish the expected data on the economics of pepper planting. Spacing, manurial and cultural trials in an endeavour to elucidate the most economic husbandry techniques have also been initiated, some in conjunction with local farmers whose ready co-operation in this work is gratefully acknowledged. A defect of commercial Sarawak pepper is the presence of mould resulting from inadequate drying in the early stages after harvest, and trials to evolve an artificial drying technique were showing promise. Foot-rot of pepper, on which the Plant Pathologist is engaged full-time, fortunately has been less severe than in previous years. As a result of his work, modifications in agricultural practices have

been indicated and are being incorporated in departmental field experiments as demonstrations for local farmers. It has also been shown in preliminary experiments that some of the better types of pepper imported from India and Indonesia appear to have a higher degree of resistance to foot-rot than the very susceptible local types, but further studies are needed before wholesale distribution of planting material of these types can be considered.

The Extension Branch is responsible for bringing the results of research to farmers in an easily assimilable form as well as providing a host of important services, and in doing so follows the modern concept of directing extension work at the farmer and his family as a unit. Probably the most significant development attaching to this Branch is the growing organisation of women's services at all levels. Although possibly it has still to be fully appreciated there undoubtedly lies in the women of Sarawak a tremendous potential waiting to be utilised in the future development of agriculture in Sarawak.

The activities of the other two Branches, Rubber and Veterinary Services, are described elsewhere in this report.

### *Staff Training*

No department can be expected to function as it should without a well-trained and efficient staff and every possible means has been taken to intensify staff training both in Sarawak and abroad. Some twenty-nine new recruits were given a two-week induction course, while thirty-five Junior Agricultural Assistants and Women Home Demonstrators were taking the Department's 15-month co-education course on general agriculture and extension methods and principles. The keenness and enthusiasm of the Home Demonstrators augur well for the future of the recently established Extension Branch of the Department.

Through the courtesy of the Director of the Rubber Research Institute, Malaya, thirty-eight junior officers attended a series of 3-week courses (at the Institute's training centres) on rubber processing and planting techniques. The Sarawak trainees compared reasonably well with Malayan members at the courses and undoubtedly they benefitted to a marked degree in efficiency and outlook. Five Colombo Plan Scholarships were awarded covering one Degree and two Diploma courses in Agriculture in Australia and two Diploma courses in Home Economics tenable

in the Philippines and New Zealand. The first two Colombo Plan Scholarship trainees successful in obtaining a Diploma in Agriculture in Australia returned at the beginning of the year and were undergoing specialised training to familiarise them with administration and the research and extension activities of the Department.

#### *Rural Agricultural Education*

Five Sarawak Government Scholarships in Agriculture, tenable at the School of Agriculture, Batu Lintang, Kuching were awarded to farmers' sons.

Courses in general agriculture of roughly one week's duration held at Agricultural Stations in the First, Third and Fifth Divisions were attended by sixty-one farmers and their wives. No opportunity was neglected to demonstrate to rubber planters the latest techniques in planting and processing and eight special 2-week courses, attended by 250 farmers and their wives, were arranged at the Department's Training School at Samarahan Rubber Estate. Small though this effort may be it has already had some effect in the improvement of sheet rubber from certain districts and has received favourable comment from dealers and exporters.

#### *Propaganda*

In any country where communications are poorly developed the radio provides a valuable link with isolated farmers. In Sarawak hardly a farming community, even in the furthest interior, does not possess a wireless set and through the courtesy of Radio Sarawak the Department has endeavoured to strengthen the link between itself and farmers by means of regular weekly broadcast programmes in the vernacular entitled "Calling All Farmers". Technical literature in the vernacular was widely distributed as pamphlets and simple, informative articles printed in *Pembrita* (Dayak) and *Pedoman Ra'ayat* (Malay) published by the Sarawak Information Service.

#### ANIMAL HUSBANDRY

Livestock husbandry at present plays a small part in Sarawak's rural economy and mixed farming in the generally accepted sense is not practised. A provisional livestock census indicated the number and dispersal of the more important stock as follows:—

## CENSUS OF LIVESTOCK, 1959

<i>Division</i>	<i>Buffaloes</i>	<i>Cattle</i>	<i>Pigs</i>	<i>Goats</i>
First	64	721	34,009	3,068
Second	66	1,737	45,681	654
Third	262	1,995	39,530	2,670
Fourth	1,400	1,100	8,683	1,000
Fifth	6,943	198	10,255	396
TOTAL	<u>8,735</u>	<u>5,751</u>	<u>138,158</u>	<u>7,788</u>

The indicated increase in numbers is largely the result of improvements in census taking.

By means of the Miscellaneous Licences (Slaughter and Exportation of Cattle Regulations, 1957) Ordinance which vests in the Department of Agriculture responsibility for controlling the export and slaughter of buffaloes, cattle, swine, sheep and goats, it is possible to some extent to safeguard the future of breeding stock.

Buffaloes are kept more for the production of meat than draught purposes and only to a very limited extent are they used in rice cultivation. The Department of Agriculture opened a campaign in 1959 to stimulate this latter interest but little headway was made. A number of small herds of dairy cattle are kept in the vicinity of Kuching and Miri but milk production is low and often produced under poor and unhygienic conditions. The little beef that is consumed in Sarawak is mainly imported on the hoof from Singapore, Brunei and North Borneo. A welcome manifestation is the increasing interest shown by Dayaks in cattle keeping, but unfortunately the high capital cost of establishing a herd is a tremendous drawback to progress.

Pigs are kept in large numbers by all non-Muslim races, particularly the Chinese and Dayaks. While the former generally provide a reasonably high standard of housing and feeding, in the eyes of the latter the main function of the pig is to act as a scavenger and consequently little attention is paid to it. The introduction of new blood—Middle White, Tamworth and Berkshire—to the Chinese pig industry has gone ahead smoothly and

efficiently, the Department issuing a total of 520 boars, sows and gilts compared with 408 in 1958. Great scope still exists for further developments and apart from disease the greatest single obstacle is the absence of a locally produced cheap animal protein for stock feeding.

The battery system of poultry keeping has rapidly come into favour and in the First Division a number of commercial units holding from 250 up to 2,000 birds commenced operations in 1959. Operators show a preference for the White Leghorn and obtain their requirements as day-old chicks from Australia. Rations fed may be locally mixed or imported. Hatcheries for the production of local type day-old chicks are a feature of the larger towns. In country areas small flocks of poultry are found in most villages but the scant attention paid to them is conducive only to the most meagre returns.

The comparative livestock import figures over the last four years are:—

	1956	1957	1958	1959
Cattle and Buffaloes	595	998	705	881
Pigs	17,707	13,679	7,437	9,081
Poultry (mostly day-old chicks)	31,949	34,592	36,264	61,798

Although a slight rise is recorded in the number of pigs imported in 1959, nevertheless the total figure is still significantly below those in the years preceding 1957. The policy of injecting new blood into local herds coupled with a higher survival rate amongst weaners following better and more extensive veterinary services are undoubtedly contributory factors.

A few goats are found in Malay and Dayak villages and although providing a useful source of meat on special occasions unfortunately do not form a regular contribution to the diet.

There have been no reported cases of rabies, rinderpest, foot and mouth disease, swine fever or other major epizootics and it is Government policy to prevent their introduction by strictly controlling or forbidding the import of animals from countries where such diseases exist or may exist. A quarantine station for cats and dogs was opened in Kuching early in 1959.

Comparative figures for Ranikhet and fowl pox vaccination are appended:—

	1956	1957	1958	1959
Ranikhet disease	105,154	187,552	227,792	303,144
Fowl pox	—	4,791	22,987	34,288

Protective inoculations given against Haemorrhagic Septicaemia in cattle, sheep and goats and Pasteurellosis in pigs numbered 138 and 3,247 respectively.

The Veterinary Clinic, Kuching, continued to provide facilities for the diagnosis of disease and treatment of animals. A second but smaller clinic was in course of building at Miri. As in previous years pigs, of which 11,091 were treated, were again the stock receiving most attention. Meat inspection is the responsibility of the Municipal Health Departments but the Veterinary Branch co-operates and assists when required. Slaughterhouse returns, and it should be noted that these are for Municipal areas only, were as follows:—

Cattle	441	Goats	550
Buffaloes	818	Pigs	34,800
Sheep		158	

#### FRESHWATER FISHERIES

The development of freshwater fisheries has a most important part to play in the physical welfare of Sarawak farmers, particularly in the interior areas. In such areas cattle and buffaloes are generally non-existent, the pig is a wandering scavenger, fish are scarce as a result of the indiscriminate use of derris in the rivers and the production of eggs and poultry meat is subordinated to the cult of the fighting cock. In short, there is a distressing lack of readily available animal protein in the diet. In pond culture of freshwater fish lies an obvious solution to the problem and within the limits imposed by staff shortages every effort has been made to encourage expansion of this so far underdeveloped industry. Compared with 283 ponds in 1958, 646 were constructed and stocked during 1959. It is particularly gratifying that the Land Dayak community—the one with possibly the lowest nutritional standards—is showing the greatest interest in this work and in 16 Land Dayak villages 293 ponds of varying size were completed and stocked during the year.



Comparative figures for the distribution of fry and fingerlings over the last three years are appended:—

	1957	1958	1959
Tilapia	1,194	15,934	38,164
Trichogaster	1,543	8,038	11,417
Cuprinus	—	254	1,408
Osphronemus	—	—	210
Helostoma	—	—	122

Study on a racial basis of the data relating to requests for fry showed that the Land Dayaks took first place with 303 applications, followed by the Chinese with 130, the Malays with 47 and the Sea Dayaks with 41. Imports of Chinese carp from Hong Kong by air increased from 68,700 in 1958 to 72,274 in 1959.

#### FORESTRY

Natural forest still covers some 36,000 square miles or about 76 per cent of Sarawak. Except for a relatively small and commercially unimportant (but ecologically interesting) area of moss forest on the tops of the higher hills, nearly all this natural vegetation is classed as lowland Tropical High Forest. It consists almost entirely of evergreen trees and is in most parts dominated by species of one botanical family, the *Dipterocarpaceae*, but it is very varied. The number of indigenous tree species, many still unknown, probably exceeds 2,500, but not more than about one-tenth of them are important as timber-producers. For the working of timber, much of the forest is still inaccessible but if the internal communications of the country can be improved, most of this forest is potentially productive.

The Tropical High Forest is divided into a number of distinctive types, depending mainly on soil. The principal ones are described below:—

##### *Mangrove swamps*

These are tidal swamps in sheltered places in the estuaries of the larger rivers, the most important being the Sarawak, Rejang and Trusan. The area is estimated at about 620 square miles, but only about half of this is true mangrove of good quality, the remainder being either poor forest in the drier parts of the swamps, or else thickets of the *nipah* palm. Mangrove is of little importance as a timber producer, but a valuable source

of firewood, charcoal and cutch. The *nipah* palm provides sugar and thatch.

#### *Peat-swamp forest*

The greater part of the coastal belt is composed of peat-swamp forest with peat soils up to sixty feet in depth and extending inland for more than fifty miles in places. The peat has developed on alluvium brought down by the rivers draining the hinterland, and covers about 6,000 square miles, of which approximately 5,770 square miles is still under primary forest. Each swamp is in the form of a raised bog with frequently a distinct concentric zonation of forest types. The most valuable forest occurs in the peripheral zone where *ramin* (*Gonystylus bancanus*), *jongkong* (*Dactylocladus stenostachys*), *sepetir paya* (*Copaifera palustris*) and the swamp *merantis* (*Shorea spp.*) are the principal dominants. This forest type at present supplies about ninety per cent of the timber for export. *Jelutong* (*Deyra lowii*), which is a source of the commercial chewing gum, also occurs here. The central zones are largely dominated by *alan* (*Shorea albida*) which in certain types forms almost pure stands.

#### *Kerangas or Heath Forest*

This type of vegetation occurs on areas of very poor, acid podsol soils, scattered throughout the country and probably covering several thousand square miles. Much of this forest is of poor quality and even in the better parts the trees are usually of relatively small size, but the forests are often of considerable value. In places there are almost pure stands of *ru ronang* (*Casuarina sumatrana*) which provides high quality fuel, and there are also rich stands of the conifers *bindang* (*Agathis alba*) and *sempilor* (*Dacrydium elatum*), which are not otherwise available except on steep and usually inaccessible hills. Where shifting cultivation is widespread, the only forests left are mostly of the *kerangas* type, the soil being too poor for agriculture; and these are invaluable as the only remaining local sources of timber, firewood and other essential forest products for the surrounding population.

#### *Riparian forest*

Narrow strips of riverine alluvial soils, rarely half a mile wide, carry a special type of forest which appears to vary mainly

with the nature and the speed of the rivers. In the upper reaches of fast-flowing streams, the riparian forest often consists chiefly of species of *engkabang* (*Shorea spp.*), the source of the valuable oil-bearing *illipe* nut. Where the streams are comparatively slow-flowing, the forest often changes, and in many places *belian* (*Eusideroxylon zwageri*) becomes the most important tree. The remaining riparian forest of value is of small extent and much of it has been destroyed by ribbon cultivation along the rivers, and because of the esteem in which the timber of *belian* is held.

#### *Other types*

The remaining forest, covering about 28,000 square miles, is found on less specialised soils. It is very mixed, with a multitude of species, dominated by Dipterocarps such as *meranti* (*Shorea*), *keruing* (*Dipterocarpus*) and *kapur* (*Dryobalanops*). It is very dense and the trees are tall, the roof of the forest being usually about 150 feet above the ground. Below this canopy formed by the larger species, there are several not very sharply defined layers of smaller shade-bearing trees, but low vegetation is generally scanty because very little light reaches the ground. Climbing lianes and canes are common, and epiphytes such as orchids are abundant on the higher branches of the trees. Considerable areas of this forest are obviously secondary, the relics of a former cultivation that has now disappeared.

#### *Policy and administration*

It is the policy of the Government of Sarawak—

- (1) To reserve permanently for the benefit of the present and future inhabitants of the country forest land sufficient for—
  - (a) the assurance of the sound climatic and physical condition of the country; the safe-guarding of soil fertility and of supplies of water for domestic and industrial use, irrigation and general agricultural purposes; and the prevention of damage by flooding and erosion to rivers and agricultural land;
  - (b) the supply in perpetuity and at moderate prices of all forms of forest produce within the country, required by the people for agricultural, domestic and industrial purposes under a fully developed national economy.

(2) To manage the productive forests of the permanent forest estate to obtain the highest possible revenue compatible with the principle of sustained yield and the primary objects set out above.

(3) To promote, as far as may be practicable, the thorough and economical utilisation of forest products on land not included in the permanent forest estate, before its alienation.

(4) To foster, as far as may be compatible with the prior claims of local demands, a profitable export trade in forest produce.

### *Exploration*

The study of *kerangas* or "heath" forest continued with the exploration of the Merurong Plateau in the north-east corner of Bintulu district about sixteen miles south-west of Mount Dulit. It is a rectangular sheet of sandstone with an elevation of 2,700 to 4,000 feet, about three miles long by one mile wide. The approaches to the plateau are precipitous, and it recalls Conan Doyle's famous "Lost World". A detailed study of the vegetation and soils was carried out.

The preliminary exploration of the valuable peat swamp forests is now nearing completion. During the year the swamps between Kuala Niah and Kuala Suai in Miri district, and those north of the Sungei Bawan forest reserve near Balingian in Mukah district were examined.

A Rapide aircraft was chartered from Borneo Airways for a 2¾-hour reconnaissance flight, organised by the Colonial Timber Company, over the forests in the Katibas drainage, Kapit district.

### *Constitution of Permanent Forests*

The area of the permanent forest estate was increased by 310 square miles during the year, bringing the total to 11,268 square miles, equivalent to 24 per cent of the land area of the country.

In the First Division extensions were made to the Balai Ringin, Gunong Poi and Triso forests. The Krangan protected forest (a small area of lowland forest adjacent to the Balai Ringin

protected forest) was newly constituted, and also the Simunjan forest reserve, a large area of swamp forest.

In the Fifth Division the Medalam protected forest was constituted in the headwaters of the Medalam river.

#### *Forest Inventories*

In Sarawak the soils, and consequently the vegetation types, are so varied in quite small areas that proper management of forests on a basis of sustained yield is impossible unless stock-maps are carefully prepared. The method generally used is to make a preliminary map from aerial photographs, and to check the interpretation and assess the quality of the forest by the detailed examination of sample strips one chain wide, spaced on a stratified random system. The area covered by these inventories during the year was 291 square miles.

#### *Working plans*

In the First Division a plan of management for the Balai Ringin and Sabal forests was approved. The plan covers 109 square miles of lowland forest, of which sixty-eight square miles are considered productive. These forests became accessible when the Serian-Simanggang road reached them.

The total area of permanent forests now under plans of management is 829.3 square miles.

#### *Silviculture*

Sarawak relies mainly on methods of natural regeneration for the rehabilitation and improvement of its forests, and silvicultural works in favour of young regrowth were carried out over 3,320 acres during the year.

#### *Forest Industries*

There are no privately owned forests in Sarawak. The forests on Crown land are worked under licences and permits issued by the Forest Department and royalty is collected at notified rates. The principal industries are:—

- (i) The timber industry
- (ii) The firewood and charcoal industry
- (iii) Minor forest products.

(i) *The timber industry.* This has been built up since the war from a few sawmills cutting timber mainly for local consumption to a major industry exporting large quantities of timber, thanks mainly to one timber—*ramin* (*Gonystylus bancanus*)—which has found favour in temperate countries (especially the United Kingdom), and of which Sarawak has almost a monopoly at the present time. The market for *ramin*, which suffered a recession in 1958, improved throughout 1959, with the result that the Government control of exports by a quota system was lifted at the end of the year.

An important development in the marketing of timber was the strong entry of Japan into the market for logs. For some years Japan has been buying increasingly large quantities from British North Borneo, but now owing to dwindling supplies from the Philippines she is buying logs in every market available in South-east Asia and the Western Pacific. In Sarawak this has meant that "Mixed Light Hardwoods" have suddenly found a ready market; these are a number of species growing in association with *ramin* in swamp forests, and this new development means more thorough and more economical exploitation of the swamp forests, and simpler silviculture treatment.

A timber marketing expert of the Food and Agriculture Organisation of the United Nations, Mr. M. N. Gallant, O.B.E., was in Sarawak for a month and visited a number of sawmills. The main object of his visit was to advise the Government on the marketing of *ramin* timber, which has been subject since 1955 to alarming fluctuations in price on the United Kingdom market. He was also consulted on a number of other problems that had been perplexing the Forest Department for some time, and his world-wide experience of the timber industry in the tropics enabled him to suggest satisfactory solutions to these various problems and to indicate further lines of development in forestry.

At the end of the year there were seventy licensed sawmills working in the country. The total cut of commercial wood, in terms of round timber was 500,462 tons of 50 Hoppus feet, as compared with 370,426 tons in 1958. Of this total approximately 38 per cent was exported, and timber exports, which are summarised in the following table, were valued at \$31,040,471 f.o.b. as compared with \$15,734,178 in 1958.

Destination	Sawn timber Tons of 50 cu. ft.	Logs Tons of 50 Hoppus ft.	Total equivalent in round timber Tons of 50 Hoppus ft.	
			1959	1958
United Kingdom	66,289	41	132,685	112,992
Hong Kong	7,682	71,130	86,494	48,404
Japan	—	75,425	75,425	11,114
Australia	23,175	16,380	62,730	55,457
Italy	1,589	25,362	28,540	20,082
Holland	7,279	1,483	16,041	14,252
Germany	7,170	1,656	15,996	11,539
Belgium	2,683	—	5,366	5,940
Brunei	2,322	—	4,644	4,405
Other Borneo Ports	1,143	1,058	3,344	2,030
Denmark	1,161	10	2,332	3,428
South Africa	907	—	1,814	1,554
Pakistan	619	—	1,238	—
Sweden	577	—	1,154	705
Lebanon	360	—	720	192
Iraq	315	—	630	739
Norway	285	—	570	766
France	199	—	398	505
Ireland	192	—	384	396
Syria	123	—	246	80
Greece	120	—	240	424
U.S.A.	41	81	163	91
Canada	75	—	150	—
Singapore	12	5	29	353
Saudi Arabia	10	—	20	—

(ii) *The firewood and charcoal industries.* The three principal areas of the mangrove forest in the country are near Kuching, in the delta of the Rejang River, and along the southern shore of Brunei bay in Lawas district. These forests are utilised for firewood and charcoal, both for home consumption and for export to Hong Kong. Formerly two catch factories also operated in these forests, the "catch" being an extract of mangrove bark with a high tannin content. One factory (situated in Brunei Town) closed down in 1952 and the other factory, at Selalang, decided to close down at the end of the year. One of the reasons why this forest product is no longer as valuable as it used to be is the increasing use of nylon fishing nets, which do not require treatment with tannins as a preservative as did the old type of nets.

Export of firewood to Hong Kong is principally from the Lawas district. This market is subject to violent fluctuations, depending on the quantity of firewood available from the mainland of China and also on the time of year (the demand increases during the cold winter), which makes it difficult to plan production on normal lines. Charcoal produced in Sarawak cannot normally compete in price with Malayan charcoal, and is sold locally for domestic use, but some was exported this year for the first time, to Hong Kong.

(iii) *Minor forest products.* The year 1959 will go down in history as producing the record crop to date of *engkabang* or *illipe nuts*, from which a vegetable fat is extracted in the United Kingdom for the manufacture of chocolates. These nuts are the fruits of wild *Shorea* sp. (principally *S. gysbertsiana* which grows on alluvial flats along the rivers). The export from Sarawak totalled 22,000 tons, valued at \$ (Malayan) 20,000,000 or about £2,500,000. This money goes mostly to the Dayaks of the interior, who collect and market the nuts, and who spend the money on guns, outboard motors, sewing machines, and wardrobes. Unfortunately *Shorea* fruits irregularly, one or two fat years being followed by a series of lean or blank years. The Forest Department has in hand a research project to try and determine the meteorological factors that influence the flowering and fruiting of these trees.

Another important product is *getah jelutong*, a latex tapped from *Dyera lowii*, a common tree in the peat-swamp forests. Tapping is done under licences or permits, and export duty is collected on the product, which goes to the United States for the manufacture of chewing gum.

The market for malacca canes improved during the year. Other minor products are *damar*, wild rubbers, palm sugar, etc. The Forest Department has little control over most kinds of minor forest produce, except when these are collected in permanent forests, but the Government derives revenue from them by way of export duties. The total f.o.b. value of such products was \$23,015,303 as compared with \$10,554,239 in 1958.

#### *Research*

A five-year Forest Research Programme for the period 1959-63 was approved during the year. The programme, which is largely



devoted to research in peat swamp forest, is prepared on a project basis with sections devoted to botany, ecology, silviculture, wood technology and timber research, mensuration and entomology. The principal projects include:—

- (i) completion and publication of studies of floristic composition and ecology of peat swamp forests;
- (ii) a study of the natural regeneration and silviculture of *ramin* and other economic species in peat swamp forest;
- (iii) preparation of girth-volume tables for *ramin*, *jongkong*, *petir paya* and the swamp *merantis*; and
- (iv) studies of the mechanical properties and durability of the more important peat swamp timber trees.

The fruiting season, following the heavy flowering reported in the 1958 Report, of the important family *Dipterocarpaceae* provided a further opportunity for the collection of botanical material. Approximately 1,000 duplicates were distributed to six herbaria in Europe and Asia. The assistance of the Forest Research Institute, Malaya, in the identification of species is gratefully acknowledged.

The heavy fruiting of *engkabang* trees, reported elsewhere in this report, stimulated research into the conditions under which these trees flower and fruit. A tower to a height of 110 feet was constructed round one tree and some preliminary information was obtained from instruments established up to seventy feet.

Considerable progress was made on a study of the composition and ecology of "heath" forests. The collection of about 4,500 botanical specimens was sorted and further sample plots were enumerated on the Merurong Plateau in the Bintulu District, on Bukit Serapah and in the Sungei Dalam Forest Reserve.

#### NATIONAL PARKS

The Bako National Park on the coast not far from Kuching continued to be popular with holiday-makers.

Final arrangements were made for an extension to the Park of the easterly tip of the Bako peninsular and most of Pulau Lakei. The extension, which totals approximately 1,290 acres, under primary forest similar to that in the remainder of the Park, will be constituted as from 1st January, 1960.

The development of the Park continued. Further accommodation and facilities were provided at Telok Asam and the paths improved.

Recorded visitors to the Park in 1959 totalled 2,971, a decrease of 1,069 on the previous year. With better accommodation the number of visitors staying one or more nights increased, the hostel being particularly popular, but visitors who came only for the day decreased by nearly a thousand. Difficulties and expense in obtaining transport are the probable causes.

#### MINERAL RESOURCES

In 1959 the value of minerals produced in Sarawak was M\$8,563,015, this being an increase of M\$1,855,275 over the previous year. The main development during 1959 was the large increase in bauxite production to 206,848 long tons (of which 202,925 were exported), more than double the 1958 output; further increases are planned for 1960. The main mineral resources are oil, gold, bauxite, coal, stone, phosphate, antimony, mercury, and glass-sand. Small occurrences are known of silver, lead, copper, diamonds, gypsum, ilmenite, zircon, monazite, iron ore, sapphire, and kaolin; salt is obtained by native methods in the interior. Detailed descriptions of Sarawak mineral resources, together with production records, are given in the Annual Reports and other publications of the Geological Survey Department.

#### *Production*

Production during 1959 consisted of bauxite, oil, gold, bricks, lime, gravel, and stone; their estimated value was M\$8,563,015. Mineral exports consisted of oil and bauxite and were valued at M\$354,907,015; all the gold produced is now sold locally. About M\$9,023,000 was paid as revenue in the form of royalties, export duty, company tax, and mining rents. Much of this sum came from the oil industry. Most of the oil exported was from Brunei, but was piped to Sarawak, and some of it treated at the Lutong Refinery. Exports comprised crude oil, gasoline, kerosene, gas oil, fuel oil, diesel fuel, and diesel fuel bunkers. The oil industry, a Royal Dutch Shell Group organization, operates on a large scale using modern methods, and the bauxite mine is well equipped and mechanised. The other mineral industries are mainly small Chinese concerns. Nine gold mines are in operation in the Bau District, and building materials are produced at the three main towns, Kuching, Sibul, and Miri.

PRODUCTION  
MINERAL PRODUCTION IN 1959

<i>Mineral</i>	<i>Production</i>	<i>Remarks</i>
BAUXITE	206,848 long tons	Exports of bauxite totalled 202,925 long tons, were worth M\$3,842,537 and yielded M\$320,388 in royalty and duty. Mining rents yielded M\$480.
OIL	395,413 United States barrels	Valued at M\$2,882,230, royalty estimated at M\$314,902. Oil exports from Sarawak totalled 40,483,842 bbls. valued at M\$351,064,478 and included gasoline, diesel, kerosene, gas oil, fuel oil, and crude oil. Most of this oil was produced in Brunei but piped to Sarawak where some of it was treated at Lutong Refinery before being exported.
GOLD	2,450 fine ounces	Valued at about M\$298,924. To help the industry, no royalty was charged; mining rents yielded M\$4,506. The output came from nine mines in the Bau district.
PHOSPHATE	619 long tons	Valued at M\$67,606. Extracted from Niah Caves, Bukit Subis, Fourth Division.
BRICKS	1,813,600 bricks	Estimated; the value is about M\$222,018. The output in Kuching was 60,000, around Sibu local companies produced 1,195,000 clay bricks, and at Miri 558,600.
LIME	30 long tons	Valued at M\$3,000; made in the Kuching area by the Ban Hin Company.
STONE	171,842 cubic yards	Estimated value M\$1,168,074. Over half this stone was produced in the First Division coming from Stebun, Stabar and Stapok quarries. In the Second Division, Sebuyau quarry yielded 40,742 cubic yards, and in the Fourth Division, Batu Gading quarry had a recorded output of 7,386 cubic yards.
GRAVEL	7,983 cubic yards	Estimated value M\$78,626.

Values are in Malayan dollars, M\$1 being worth Sterling 2s. 4d.

### *Mining Areas*

Mining leases covered 2,950 acres, of which 2,470 acres were for gold and more than 480 acres for bauxite; this is the only land in the 47,000-square mile territory reserved exclusively for mining. Oil rights are held by Sarawak Shell Oilfields Limited over 10,850 square miles of land and the offshore continental shelf area which covers some 55,000 square miles. During the year twelve general prospecting licences and two new mining leases were issued. Most prospecting licences were for gold in the Bau district; two were for antimony, one for mercury, and one for black sand. Prospecting increased during 1959 particularly for bauxite, gold, and mercury.

### *Aluminium Ore*

Sematan Bauxite Limited started mining in early 1958 at Sematan in west Sarawak, and during 1959 202,925 long tons of ore were exported, and a considerable tonnage of ore stockpiled for shipment at the end of the monsoon. The ore exported was worth about M\$3,842,537 and M\$320,388 was paid in royalty and export duty. The deposit being mined is at Munggu Belian, in undulating country about half a mile from Sematan, and is estimated to contain more than 2,600,000 tons of washed bauxite. The ore forms a bed about ten feet thick under a thin cover of soil and is being worked by excavators, cleaned at a washing plant at Sematan, stockpiled, and then loaded on steel lighters and taken to ocean freighters about three miles out at sea. Ore was shipped from Sematan in twenty-four freighters during 1959, twice as many as in 1958. A new washing plant was completed in 1959, raising the maximum output to 1,500 tons a day. The wharf is being extended so that loading can take place at all times during 1960, instead of being halted for about four hours at low tide. Improvements in these facilities should give a loading rate of 250 tons every 30-40 minutes during the shipping season. A drag line excavator is on order for use in mining in swamp areas, and a new generator to increase power output. The mine is working sixteen hours a day in two shifts during the wet season from November to March to endeavour to stockpile 100,000 tons of ore before shipping starts in March, 1960. This may enable 300,000 tons of ore to be shipped during 1960. The possibility of mining the Bukit Gebong deposit, about

3½ miles from Munggu Belian, was considered in 1959. This deposit is believed to be capable of yielding 2,000,000 tons of washed bauxite, but no mining plans have yet been made.

Prospecting on a limited scale continued at Munggu Belian, Bukit Gebong, and Tanjong Serabang in 1959. Pitting and drilling at the margins of the Munggu Belian deposit showed that bauxite extends below the alluvium there, and that power-driven rotary drills can be effectively used to penetrate and evaluate the bauxite layers. 250,000 tons of additional ore were proved at Munggu Belian, but some of this occurs below thick overburden. However, the results of 1959 prospecting hold out hopes that further bauxite may be found in the extensive area of terrace sands and swamps that lies west of Sematan. A further aid to prospecting is the establishment of the fact that the Munggu Belian ore has been formed, at least in part, from basalt; more detailed geological investigation of west Sarawak may reveal more areas built of this rock, and which may be worth testing for bauxite.

Bauxite was originally discovered in 1949 in west Sarawak during Government Geological Survey work. More than twenty occurrences are now known. Three appear to be worth mining and the working of one of these has started. Methods of mining two others are being examined. The three deposits could yield about 5,625,000 tons of washed bauxite and are accessible for water transport. The amount of ore available in the remaining occurrences is unknown. Most of them are isolated, inland, small, or contain ore of poor grade, but only a reconnaissance of the areas in which they occur has so far been made, and a more detailed examination will probably reveal extensions to the known bauxite and also lead to the discovery of new deposits.

### *Oil*

The 1959 output from Miri field totalled 54,708 long tons valued at M\$2,882,230. The yield is decreasing, Sarawak having exported oil for over forty years from this field, and before that there was a small production for local use. The oil was obtained from 175 pumping wells, the depths of which range from 300 to 6,270 feet; it comes from Tertiary sands.

Sarawak and Brunei oil is exported via Lutong in Sarawak, and 5,357,626 long tons, valued at M\$351,064,478 were shipped in

1959. Most was crude oil, but in addition the Lutong Refinery produced 2,356,061 long tons made up as follows: gasoline 367,387; kerosene twelve; gas oil 46,919; diesel fuel 1,272,113; Lutong residue 455,554; naphtha 200,410; and isobutane concentrate 13,666.

Oil production in Sarawak resulted from geological investigations started in 1909 on behalf of the Royal Dutch Shell Group. Oil was struck at Miri the following year and a company with capital of £500,000 was formed. The first shipment was made in April, 1913, and production has since been continuous, the total output to 31st December, 1959 being 75,509,837 U.S. barrels—this includes the production estimated to have been made during the Japanese occupation. More than M\$12,800,000 in direct royalties has been paid to the Government of Sarawak.

During 1959, the search for new oilfields was continued by Sarawak Shell Oilfields Limited, mainly in the coastal region. Oil indications were obtained at shallow depths towards the end of the year, from exploration drilling at Engkabang, some four miles south of Marudi in eastern Sarawak, where drilling reached a depth of 10,854 feet. The economic significance of the oil indications, found between 500 and 700 feet, still remained to be evaluated at the end of 1959. Surface geological surveys were in progress east of Marudi and north of the Tutoh River in the Fourth Division, to provide material for palynological studies. Other surveys, aimed at establishing a detailed structural picture, continued along the Limbang River near Danau, while, in the Ulu Suai and Tinjar areas, surveys were made for stratigraphical and tectonic purposes. Photogeological interpretations were made of the Pandan and Subis-Bintulu areas in the Third and Fourth Divisions.

Geophysical reviews were in progress for the Miri and Ensalai area in the Fourth Division, and for the offshore areas between Bintulu, Similajau, and Suai. Laboratory studies, connected with establishment of a zonation of the pelagic Foraminifera of the Tertiary, drew largely on Sarawak material, mainly from the eastern part of the country. Routine examinations were made of samples from field surveys by the Government Geological Survey, and from surveys and exploration wells of Sarawak Shell Oilfields Limited.

### *Gold*

Production was 2,450 fine ounces, nearly three times the 1958 output and the highest since the war. All the gold came from around Bau, where nine small Chinese-owned mines were operating during 1959. Two old mines, the Ban Lee Gold Mine, and the Sarawak Gold Mine, both of which produced large amounts of gold before the war, were re-opened. The increases in production may be attributed to the change in regulations governing the sale of gold, brought into force in late 1958; gold can now be sold to local goldsmiths at about M\$122 per ounce, compared with about M\$102 that would be paid for gold exported to Singapore; in consequence all the gold produced is now sold locally.

Gold has probably been mined in west Sarawak for several centuries and is known to be widely distributed in small quantities elsewhere in the country. Recorded production from 1868 onwards is 1,218,538 fine ounces.

### *Phosphate*

Phosphate (guano) production in 1959 was 619 long tons, valued at M\$67,600. The total recorded output since 1946 is 6,817 long tons, all from deposits in the Niah Caves at Bukit Subis in the Fourth Division, where it is now extracted under the supervision of the Sarawak Museum and a local committee. The Niah Caves are estimated to contain 29,000 tons of phosphate. Unrecorded small amounts of guano are also obtained for local use from a number of other caves in Sarawak.

### *Building Materials*

Bricks and lime are produced by small concerns owned by Sarawak Chinese. The value of the 1959 output of these materials is estimated at M\$225,018, of which M\$3,000 is the estimated value of the lime. Clay and sand for brick manufacture in the Kuching area are obtained from the Sarawak River Valley, and the limestone used for lime manufacture in the same area comes from Gunong Staat. Building materials were also produced at Sibü and Miri.

### *Stone and Gravel*

Stone and gravel production in 1959 had an estimated value of M\$1,246,700. In recent years, geological information has been applied to the location of stone and gravel supplies and, although

sufficient quarries now exist to supply Sarawak with both the quality and quantity needed, economies can still be made by finding stone in areas where it is to be used, as its price on site depends mainly on the distance it has to be transported. About thirty-seven miles of the ninety-mile road from Serian in the First Division to Simanggang in the Second Division, has been built, and quarrying of stone from some of the fourteen possible quarry sites discovered near the road-trace is providing ample material for road-building. This is speeding up construction and also saving large sums which would otherwise have to be spent in transporting stone.

#### *Minerals Investigated*

Minerals referred to briefly below have been investigated during 1959, but not mined. In past reports full details have been given.

*Coal.* Four general prospecting licences for coal were issued in 1959 for the Silantek-Abok, Simunjan, Bintulu, and Tatau areas. A party including two mining engineers from the Nippon Coal Mining Company Limited of Japan spent four months in the Silantek-Abok and Bintulu areas prospecting for coking coal. The preliminary results from surface prospecting are encouraging, and the company have applied to resume prospecting during 1960. More than thirty coal occurrences are known in Sarawak, but the best known are at Sadong, in the Silantek-Abok area, and around Bintulu and Mukah.

*Antimony.* No mining for antimony was recorded in 1959, but four general prospecting licences were issued for the Bau and Baram areas, one of which also permitted mercury prospecting. The main known deposits are in the Bau area, west Sarawak and consist largely of the sulphide, stibnite. This mineral was discovered in 1823 and about 83,000 tons have been produced since then.

*Mercury.* No mercury ore was mined in 1959, but two general prospecting licences were issued for the Bau area. A Japanese company used geophysical methods in their prospecting. The mercury occurs mainly as the sulphide, cinnabar, and recorded production is 21,598 flasks of 76 lbs. of mercury, mostly between 1871 and 1900.



*Monazite.* The only radioactive mineral recorded in Sarawak is monazite, which has been found in four places in alluvial deposits. At present, indications are that it would not repay mining.

## VIII

---

### CO-OPERATIVE DEVELOPMENT

**I**N 1959 fifteen new societies were formed and registered. Of these, six were Savings and Loan Societies, one was a Thrift Society, five were Padi Savings, two were Padi Savings and Loan Societies and one was a Co-operative Stores—all with a total initial membership of 405. Cancellations were, on the other hand, rather heavier than in 1958, eleven societies having been wound up or been in the process of liquidation by the 31st December, 1959.

Of the new registrations, five were in the First Division, one in the Second, three in the Third and six in the Fourth Division. Of the fifteen societies only three call for particular mention. Membership of the Stores Society, largely a Foochow group, consists of the owners and employees of small-scale brick works and potteries near Sibü. Local farmers may also join at a later date. This odd combination has come about as a result of the siting of the factories, situated as they are on an island opposite the town of Sibü and about two miles distant from it by water. The store can serve a useful purpose for all concerned and should do away with much wastage of time and money. It remains to be seen whether or not the groups with rather different interests can make a success of the experiment. A society with membership confined to women only, another Savings and Loan Society, was registered during the year; all members are Sea Dayaks. The third society of some interest is a Thrift Society formed by a group of Malay Fishermen at a coastal village near Kuching. Members of this Co-operative decided to follow the example of their wealthier and more numerous cousins in Kuching by forming a society which rigidly bars the granting of loans. This emphasis on thrift rather than credit is to be welcomed. Perhaps the work of the Department coupled with the publicity both over the Radio and in the Press in regard to thrift is beginning to have some effect.

As predicted in 1958 a number of processing societies (padi mills) had to be closed down either through bad management or lack of interest; others are likely to follow in 1960. On the whole, however, indications so far are that the majority of these societies have fared better than in previous years.

Padi Savings and Padi Savings and Loan Societies continued to make satisfactory progress although four were cancelled during the year, in part due to squabbling among the members but also to a succession of bad harvests over the last few years.

Financial societies continued much as in previous years, a few good, the majority fair, some poor, with again a few of such poor quality that they are unlikely to survive for many months longer.

It has been a bad year for Marketing Societies. The Poultry Marketing Society died a natural death through lack of support. The one Fish Marketing Society, although making a surplus on paper, has been so busy selling its produce on credit as to be in a very shaky financial condition indeed and much of the debt may be irrecoverable. The older of the two Vegetable Marketing Societies showed a sharp decline in trade and is likely to make a loss; the trouble partly being due, although much exaggerated, to the siting of their stalls in the market, but much more to their failing to follow the advice of the Department. The second of these societies shows a much brighter picture. From being, at one time a most unsatisfactory concern, it has made a remarkable recovery and should end the year with a reasonable surplus. In order to increase production and encourage new membership the society bought 120 acres of land which it hopes to bring into cultivation in 1960.

The Co-operative Stores Movement, despite some disappointments and failures, has made progress. The rise in the value of local produce in the latter half of the year may have had some effect in the reduction of credit and has certainly been a benefit to retail trade.

One of the most interesting developments is the growing interest being shown in the Co-operative Movement by Sarawak's womenfolk. As already mentioned, one new society has been registered, the membership of which is solely confined to women.

Throughout the greater part of 1959 a small but interesting experiment has been going on at Mukah in the depressed sago producing area of the Third Division. Here an approach has been made to local women to encourage them in the production of local sago food products. The Co-operative Central Bank has been assisting in the marketing of small consignments of these products but it is as yet too early to say whether there is sufficient desire among the producers or demand from the public to form a co-operative. This growing interest by women in matters co-operative is encouraging and in order to try to stimulate this interest still further efforts were made in 1959 to engage a lady Co-operative Officer. Several candidates were in fact interviewed but unfortunately none proved to be of a sufficiently co-operative turn of mind to be accepted.

The Co-operative Central Bank continued to expand satisfactorily, membership increasing from 124 to 128. The increase in the net surplus from \$4,926.53 to \$20,076.96, an increase of 300 per cent, calls for some comment. In August, 1958, the Bank bought \$200,000 of Sarawak Government Debentures. Each debenture is valued at \$10 redeemable at \$14 after a period of ten years. However, as from June, 1959, and for the next ten years, one-tenth of the debentures are to be drawn and together with interest repaid to holders every year. In the first year (1959) the Co-operative Central Bank drew 2,042 bonds valued at \$20,420 earning interest at 40 per cent in the first year, a sum of \$8,168. This income and the accrued interest on the undrawn debentures together with the interest earned on other investments and savings have resulted in a net surplus of over \$20,000.

In 1959 emphasis has been on Co-operative education. In order that this should be as effective as possible a Senior Co-operative Officer was detailed late in 1958 to take charge of training; he prepared lectures for a refresher course for the middle grade officers of the Department and a more detailed course for Probationary Officers. Both courses were held successfully in 1959 and the standard shown in the subsequent examinations is evidence that the extra training is yielding good results. As a result of this experiment it was possible to offer training facilities to Brunei and North Borneo. North Borneo took advantage of this offer and sent one of their officers to attend

the probationers course. In addition to these Departmental Courses, the same Senior Co-operative Officer was also responsible for preparing and delivering a course of lectures on Agricultural Co-operation as part of the Agricultural Extension Training Scheme.

Talks on Co-operation were also given to senior Government clerical staff as part of a Training Course, to the Women's Section of the Dayak Association and at the Batu Lintang Teachers' Training Centre.

The office at Sibul organised a course and conference for committee members of Chinese societies in the Third Division, followed later by a course for Secretaries of Dayak societies.

Although not directly concerned with any of these courses, North Borneo sent one of their more senior officers for about a month to Sarawak on a study tour. This is the first time that an officer from a neighbouring country has been sent to study the Sarawak Co-operative Movement.

The usual Field Staff Conference for Field Officers drawn from the First and Second Divisions was held late in December.

# IX

---

## SOCIAL SERVICES

### EDUCATION

#### *Primary Education*

**M**OST primary schools in Sarawak are managed by local authorities, by Chinese school boards, or by Christian missions. Local authorities, in addition to managing their own schools, have a general responsibility for primary education in their areas. In all types of primary school the full course is designed to last six years but in most rural native schools it is at present possible to provide only a four-year course. Primary education is not yet compulsory. About 97 per cent of primary school pupils are in aided schools. In aided schools fees are charged at prescribed rates but there is a system of remissions for needy cases. At present all essential recurrent expenditure on primary education in aided schools is met by the combination of grants given by the central government and fees paid by parents. Legislation was introduced in 1959 under which local authorities will in future be required to contribute part of the recurrent cost of primary education.

The schools directly managed by local authorities, which in 1959 numbered 386, with a total enrolment of 27,079 pupils, are mainly schools serving the indigenous peoples. Some enrolment statistics are contained in Tables IA and IB on page 228. The medium of instruction in these schools is partly the vernacular and partly English; frequently the vernacular is used in Primary One and Two, with English taught as a subject, and English begins to be used to some extent as the medium of instruction in Primary Three. Owing to the sparse distribution of people in the interior of the country, many rural native schools have sufficient enrolment to justify the employment of only one teacher. To limit the number of classes in a one-teacher school, a system is being adopted whereby pupils are admitted only in alternate years. Another consequence of the sparsity of the

rural population is the necessity in many native primary schools for boarding arrangements, which are often far from ideal.

A development of significance in the local authority school system during 1959 was the establishment, among mixed rural communities, of multi-racial schools catering for native and Chinese pupils together. There are now fourteen of these schools in the Third Division.

Another important development was the establishment of more schools providing the full six-year course. These schools have to be sited in central positions where they can provide the higher primary course, in Primary Five and Six, for children from a number of lower primary schools in the surrounding area. As boarding is frequently necessary, a system of 'local scholarships' provides assistance to parents towards the cost of providing food.

The standard of attainment in native primary schools is still low. The greatest need is for more teachers with a good level of education. Fortunately there is a steady rise in the academic standard of the native students admitted to the Batu Lintang Teacher Training College. To hasten the improvement of standards in native schools, it was decided that the senior grade of teachers trained at Batu Lintang (possessing a Cambridge School Certificate), who are at present mostly Chinese and would normally return to urban schools, should be under an obligation to serve in native schools for the first two years after leaving the training college. This arrangement will raise the standard of English and of general education in native schools, especially in the central upper primary schools referred to in the previous paragraphs, where many of them will serve.

The Group Headmaster scheme, and the Schools Broadcasting Service, mentioned below, are other means by which the level of achievement in native schools is being improved.

In 1959 there were 236 aided primary schools, with a total enrolment of 39,950 pupils, under the management of Chinese school boards. These boards are elected annually by the local Chinese communities. Their schools receive grants-in-aid in the same way as schools under other voluntary agencies or local authorities. Kuo-yü is the medium of instruction, while

English is taught as a subject. The percentage of Chinese boys of primary school age who are receiving education is very high though an accurate figure will not be available until the results of the 1960 census are known; the percentage of girls is lower.

In 1959 there were 146 aided primary schools under the management of five Christian missions. These schools fall into three main types, the large urban schools, the central schools and the small rural schools. The large urban schools provide mainly for the Chinese population but have also some day pupils and boarders from the indigenous peoples. Most of these mission urban schools use English as the medium of instruction from Primary One onwards; but there are five which use Kuo-yü. At the smaller towns, missions have established central schools which provide a boarding education for Dayak pupils but also admit day pupils from the neighbourhood, including Chinese and Malays. Village schools under mission management serve the Dayak peoples; these schools are very similar to the local authority native schools described above.

The number of overaged children attending primary schools is very large. The need to introduce maximum age limits for admission to primary schools was widely discussed during 1959. It was finally decided to impose a maximum age limit from the beginning of 1961, though exceptions will be allowed in rural areas where children have to travel considerable distances to school every day, and where boarding is necessary. The annual promotion of all pupils, except in special circumstances, is now insisted on; within the next few years there should be a steady improvement in the age range of pupils.

### *Secondary Education*

Secondary education is provided in the medium of English at Government and mission schools, and in the medium of Kuo-yü in 'middle' schools managed by Chinese boards and missions. In 1959 there were 3,619 pupils in the English-medium system, of whom 3,054 were in aided mission secondary schools and the remainder in Government schools. In the English-medium system, both mission and Government schools provide for native and Chinese pupils; in Government schools the latter are drawn from Chinese-medium primary schools and admitted into 'transition' classes where they study English intensively so as to



enable them to take their secondary education in this medium alongside native pupils. In aided secondary or 'middle' schools using Kuo-yü as the medium there were 4,937 pupils, of whom 4,360 were in schools under the management of Chinese boards and the remainder in mission schools. All but a very small number of pupils in these schools were Chinese.

In English-medium secondary schools a public examination is taken at the end of the third year for the Sarawak Junior Certificate. This certificate serves as a qualification for entry to certain branches of the public service and to business houses, as well as for admission to some training courses. The examination was held for the sixth time in November, 1959. 552 candidates were successful, including eleven candidates from a Chinese-medium school. Both the number of successful candidates and the percentage obtaining good results showed a marked improvement over the previous year. The Cambridge Overseas School Certificate examination is taken in the Fifth Form. There were 246 candidates for this examination in 1959; the results were not known when this report was being prepared. The results of the 1958 examination were encouraging: out of 201 candidates, 179 were successful, of whom sixty-eight obtained Grade I certificates. A few schools have Sixth Forms which in 1959 submitted twenty-nine candidates for the Cambridge Higher School Certificate examination of whom nineteen obtained the full certificate.

Chinese-medium secondary schools provide a 'junior middle' course of three years, followed by a 'senior middle' course of three years. Public examinations are taken at the end of each stage. In 1959 there were 680 successful candidates for the junior middle certificate and 216 for the senior middle certificate.

Government policy with regard to the provision of secondary education and the method used for selecting candidates for admission to secondary schools aroused much controversy at the beginning of 1959. Government therefore invited Mr. David McLellan, C.M.G., Adviser on Education to the Commissioner-General for the United Kingdom in South East Asia, to review the provision of secondary education in Sarawak. His report was expected to be published early in 1960.

### *Schools Broadcasting*

After two pilot projects undertaken in 1958, Schools Broadcasting made a successful beginning in 1959. The broadcasts are at present directed mainly towards native primary schools, with the emphasis on English, for which there is a widespread demand. It is hoped that the scheme will especially benefit the remoter schools which can seldom be visited. The scheme is an example of the valuable help, in both personnel and equipment, which education in Sarawak receives from donor agencies and without which progress would be much slower. The Schools Broadcasting Officer has been seconded by the Government of New Zealand under the Colombo Plan, and a big extension of the scheme in 1960 will be made possible by generous gifts of receiving sets from the Asia Foundation and the Government of Australia.

### *Group Headmasters*

The Group Headmaster scheme, under which experienced teachers seconded from Canada and Australia under the Colombo Plan take charge of groups of native schools, is continuing to give a beneficial stimulus to schools in the areas served.

### *Teacher Training*

There are two teacher training centres in Sarawak, one at Batu Lintang near Kuching for teachers using the medium of English, and one at Sibü for teachers using Chinese (Kuo-yü). Both are residential and provide courses of two years duration. Batu Lintang offers two courses. One is for native students whose standard of education is below the full secondary level; these students will become teachers in native primary schools. The other course is for students who have completed a secondary education; most of them will become teachers of higher primary and junior secondary classes. The training centre at Sibü admits students who have obtained a senior middle certificate and trains them for service in primary and junior middle classes; the course includes the study of English. At the end of 1959, 182 students successfully completed the courses at Batu Lintang and fifty-two at Sibü.

With the assistance of a large grant from the Colonial Development and Welfare Fund, work began in 1959 on the permanent buildings of Batu Lintang Training College. Teaching blocks, assembly hall and staff quarters were expected to be ready for the first term in 1960.

*Technical and Commercial Education*

A Nautical School was opened in Kuching during 1959, with the co-operation of the Marine Department, for the training of ships' crews.

Classes for technicians in Government Departments were established in 1959 at various centres throughout the country.

A one-year commercial course, designed to satisfy the demand for trained clerical staff in Government and business offices, was opened at the beginning of the year under a local teacher trained in the United Kingdom.

*Overseas Education*

There is no university in Sarawak. Scholarships for further education and training overseas are awarded by the Government of Sarawak and under schemes promoted by the United Kingdom, the Colombo Plan Governments, and other organisations. At the end of 1959, 105 students were studying overseas with the aid of scholarships on courses lasting at least one year.

*Adult Education*

Adult Education is organised by the Sarawak Council for Adult Education, which receives grants from Government, and by some other bodies. Classes, mainly of an academic nature, are popular in Kuching but are difficult to organise in the smaller towns.

*Borneo Literature Bureau*

For the Borneo Literature Bureau, 1959 was mainly a year of planning and preparing for the future. An Editorial Officer, a Business Officer and an artist were appointed. A grant of \$102,500 from the Nuffield Foundation made it possible to begin designing office buildings for the Bureau, and another generous grant, from the Asia Foundation, will finance a Publications Fund. Work has begun on a publications programme; some manuscripts are with the publishers and others are in course of preparation. The Government of North Borneo decided to co-operate with Sarawak in the work of the Bureau and to contribute to its recurrent cost.

*Libraries*

The Education Department is responsible for the central library in Kuching and for its services to local public libraries throughout Sarawak.

The British Council gives valuable assistance to both the central library and to local libraries not only by expert advice but by generous presentations of periodicals and books, particularly books for younger readers.

Sarawak Shell Oilfields Limited, in addition to much other help in the field of education, provided libraries for several more villages in the interior under the 'Shell Longhouse Libraries' scheme. These libraries consist mainly of popular works in simplified English and are presented to communities where there is a good number of literate adults and where it is otherwise difficult to obtain books.

#### *Scouts and Guides*

The Boy Scout movement made good progress during the year. Membership grew, and there was increased interest in expeditions; several groups organised adventurous long-distance journeys. Five scouts attended the jamboree at Manila.

The Girl Guide movement in Sarawak doubled its numbers during 1959. There are now Companies and Packs in such widely separated places as Mukah, Bintulu, Marudi, and Long Laput. With the establishment of a Cadet Company at Batu Lintang Teacher Training College, it is hoped to extend and increase the movement as more trained cadets become available each year. Money raising for the Headquarters Building Fund went ahead during 1959 but so far only a sum of \$5,000 has been collected out of the \$15,000 needed before building can begin.

#### *British Council*

Apart from the help given to public libraries, referred to above, the British Council gave advice and assistance to secondary schools on libraries and visual aids. Books, periodicals and visual aid materials were given to three Government secondary schools and to a Chinese middle school, and similar help on a more limited scale was given to other schools in different parts of the country. The Council's service of 'Teachers' Book Boxes' continued to expand; some 260 boxes were in circulation in 215 rural schools.

The Council organised during 1959 a most successful vacation course for secondary school teachers of English. Arrangements were made for a specialist English language

teaching expert, Mr. A. J. J. Dunn, to visit Sarawak from Cambodia where he is adviser on English Language teaching to the Government. Mr. Dunn gave an intensive one week's course in Kuching to forty teachers; he also took part in a course at Sibul for teachers in native primary schools and, with Mrs. Dunn, an expert in infant teaching methods, gave a series of lectures at the Sibul Teacher Training Centre.

#### *Finance*

The growth of the school population and the increase in the number of trained teachers were responsible for a further substantial rise in the cost of education. In 1956, the first year of operation of the new system of grants to schools, actual recurrent expenditure on education by the Central Government amounted to about \$5¾ million; in 1959 a sum of nearly \$10 million was provided for education in the recurrent budget.

### PUBLIC HEALTH

#### *General*

Steady progress was made during the year, by the Medical Department, towards the control of communicable diseases in Sarawak and in particular the control of malaria. Plans were also prepared for a complete reorganisation of the Department with a bias towards the preventive rather than the curative aspects of the Medical Services. One outstanding event in the latter field, however, was the official opening, in December, 1959, by His Excellency the Officer Administering the Government of the new 100-bed Simanggang Hospital. This fine modern hospital, equipped with X-ray apparatus, and an up-to-date air-conditioned theatre suite, will be of great benefit to the people of the Second Division, and will cater very adequately for their needs for many years to come.

#### *Anti-Malaria Campaign*

The anti-malaria programme has continued to be the most important mass health campaign in the country, and progress was considerable during the year. Transmission still continues to a very limited extent, but the aim of total eradication of the disease has come nearer realisation. By the end of 1959, every known malarious area in Sarawak had been sprayed, at least once, and three areas, one in the Baram District of the Fourth Division,

and two in the First Division, at Serian and Kuching, had been brought under active surveillance.

The present situation can be summed up by the statement that very satisfactory control of the disease has now been achieved, but a concentrated effort will be required during the next three or four years, to achieve the goal of total eradication. Plans were prepared at the end of the year, by the World Health Organization Malaria Advisor with the help of the World Health Organization Regional Sanitary Engineer for the conversion of the control scheme to one of total eradication of malaria from the whole country. To achieve this, the fullest co-operation of the public must be obtained, and steps are being taken to give the eradication campaign the widest publicity possible.

The idea which appears to be prevalent in some quarters, that the fight against malaria is already over, must be firmly scotched. We are only now entering the most intensive and difficult phase of the whole campaign—the phase of active, country-wide surveillance. On the success of this phase, which will last about three years, will depend the success of the whole eradication campaign. It is hoped to obtain financial help from the Malaria Eradication Special Account (MESA), and the World Health Assembly has voted the sum of U.S.\$150,000 yearly, for three years, to assist Sarawak, during the phase of intensive surveillance. Unfortunately funds in the special account are low and it is not yet known if this money will be available or not.

During the year building of the new Anti-Malaria Headquarters near the Sarawak Mental Hospital, at 7th Mile, Serian Road, was started and it is expected to be ready for occupation, early in 1960. It will contain central laboratories and will also house the First and Second Division spraying and surveillance teams.

#### *Staff and Training*

The staffing position in the Department greatly improved during 1959, and for the first time in many years, every vacancy for Specialists and Medical Officers was filled by the end of the year. This has allowed Medical Officers in all Divisions the opportunity of travelling extensively to upriver areas, and the supervision of static and travelling dispensaries, and Ulu Dressers

has greatly improved. It can be said now, that there are very few areas in Sarawak which are not within reach of medical attention of some kind, be it only the services of an Ulu Dresser. There is still, however, a shortage of Nursing Sisters in spite of the local recruitment of temporary married Sisters. The recruitment of local personnel for nursing and other hospital and technical posts was very satisfactory and there are now waiting-lists for all vacancies on the establishment.

The training of Nurses and Hospital Assistants continued in Kuching and Sibü Hospitals during the year. After a preliminary training course held in Kuching and attended by all probationers, the Sibü students return to their parent hospital for further practical and theoretical training. A Sister Tutor was available in Kuching during the year, but the post of Sister Tutor in Sibü Hospital unfortunately remained vacant throughout the year, and training was carried out by the Matron, and Nursing Sisters. During the year twenty-three Nurses and Hospital Assistants passed their final qualifying examination, and there were eighty-eight probationers in training at the end of the year. The local training of X-Ray and Laboratory Technicians and Dispensers also continued, and four Technicians and three Dispensers passed their final qualifying examination during the year; there were nine and seven probationers respectively in training at the end of the year.

The training of midwives for work in Local Authority Clinics and *ulu* areas, benefitted by the appointment during the year of a qualified midwife Tutor. Ten midwives qualified during the year and there were thirty-two in training at the end of 1959. It is planned to extend the period of training next year to two years, and to raise the educational standard for entry to the course.

Twenty-eight Sarawak students were studying medical subjects outside the country at the end of 1959 as follows:—

<i>Training</i>	<i>Country</i>	<i>Students</i>
Medicine	Australia	3
Medicine	Canada	3
Medicine	Malaya	4
Dentistry	New Zealand	1
Dentistry	Malaya	1

General Nursing	United Kingdom	2
Mental Nursing	New Zealand	1
Dental Nursing	New Zealand	1
Pharmacy (B.Sc.)	Singapore	1
T.B. Nursing	Australia	4
Health Inspection	New Zealand	4
Health Inspection	India	2
M.R.C.O.G.	United Kingdom	1

One local doctor had the distinction of gaining two degrees in surgery, the F.R.C.S. (England) and the F.R.C.S. (Edinburgh), after only eight months study in the United Kingdom.

#### *Endemic and Epidemic Diseases*

(a) The main endemic disease, *malaria*, has now been effectively controlled, and as already mentioned, plans have been prepared for its complete eradication.

(b) The most important disease now is undoubtedly *tuberculosis*. It had been hoped that a Colombo Plan team of experts from Australia would arrive during the year to conduct a field survey to determine the incidence of tuberculosis in Sarawak, and to prepare plans for a concerted attack on the disease. Unfortunately it was not found possible to recruit the experts required, but a world-famous Australian T.B. Specialist is expected early in 1960, to advise the Government on the steps to be taken to plan and carry out a pilot project in 1960. The sum of \$1 million has been voted by Government in the Development Plan, as a first step towards the mass control of such diseases as tuberculosis.

(c) *Yaws*. This disease, once widespread throughout Sarawak, is no longer a problem due to mass campaigns carried out during the past few years by teams of Medical Department personnel. Only sporadic cases are now reported and are given immediate treatment as soon as diagnosed.

(d) *Trachoma* is still widespread, but it has not yet been found possible to launch a mass attack on this disease which affects the eyesight of so many people, due to lack of the staff and funds necessary for such a campaign. When malaria has finally been conquered, and tuberculosis tackled, the problem of trachoma and its control will be one which will occupy the attention of the Medical Department and its staff.



(e) *Endemic Goitre* is a disease found commonly in upriver areas, where the diet of the local inhabitants is deficient in iodine. A start was made during 1959 in the control of this disfiguring disease. A salt iodisation plant was installed in Sibuluan, and now all salt destined for the upriver areas of the Third Division, and especially the headwaters of the Rejang river, is first iodised, free of charge, by the Medical Department. When further experience in the operation of this plant has been obtained, it is hoped to instal other plants in centres such as Kuching, Simanggang and Miri. The results of this scheme will not be evident for many years, however, since the iodisation of salt will not affect persons already suffering from goitre but will prevent its occurrence in the young living in the affected areas.

(f) *Leprosy*. The good work carried out at the Rajah Sir Charles Brooke Memorial Settlement, by the Superintendent and his small staff of devoted workers, continued during the year. There was an average of 400 patients under treatment in the Settlement during 1959, including patients from Brunei and North Borneo. Eighty-two patients were discharged during 1959. As a result of the Leaving Ceremonies at which His Excellency the Governor presents certificates to all discharged patients, and the widespread publicity given by press and radio, the public has now lost much of its fear of the disease, and discharged patients rarely encounter any difficulty in being accepted back into their communities. Many of them have learned new trades and handicrafts during their stay in the Settlement, which will be of use to them after discharge, and all have learned one important lesson—how to live and work in harmony, in a community made up of members of many different races and creeds.

(g) *Gastro-Intestinal Diseases*. These diseases are very common throughout the country due to poor environmental sanitation. In many places, intestinal worms are present in 100 per cent of the population, as a result of a complete absence of even the most primitive form of sanitation. Dysentery and gastro-enteritis are the cause of much avoidable infantile mortality and morbidity, and contaminated water supplies are frequently to blame.

The Public Works Department and Water Boards throughout Sarawak have embarked on an extensive programme of development, aimed at providing towns and villages with a safe, pure water supply. The Medical Department concentrated on the experimental sinking of two-inch tube wells, but results proved disappointing for various reasons, technical and otherwise.

Environmental sanitation is one of the big problems facing the medical authorities in the future, but results cannot be expected over-night. Health education must precede any change in the habits and customs of the people and only when the people themselves begin to demand an improvement in environmental sanitation, will any headway be made. It is planned to lay more and more emphasis in future on the prevention of disease, rather than on its cure, and the reorganisation of the Health Section of the Department is a move in this direction.

(h) *Smallpox*. No cases of this disease occurred in Sarawak during the year, but an outbreak in Singapore in April, 1959, gave added impetus to a country-wide vaccination drive which was made during the months of April, May and June. Teams were sent out in all Divisions, and over 200,000 people vaccinated.

(i) *Influenza*. A minor epidemic of Asian Influenza occurred during the year, but the disease was of a mild type.

#### *Infant and Child Welfare Services*

There has been a steady expansion of the work of this section. More and more Local Authorities are sending girls to Kuching and Sibul Hospitals to train as *bidans*, and providing them with clinics and equipment on their return. An ever-increasing number of women throughout Sarawak are now receiving regular ante-natal care and the services of a midwife during their confinements. The new Government Maternity and Child Welfare Clinic at Tarat in the First Division, mentioned in last year's report, has completed a very busy and successful year's work. It coped with a steadily increasing number of patients during 1959, many of whom had traveled long distances to attend. Several small sub-clinics were opened along the Kuching/Serian Road, staffed by Local Authority employees and visited regularly by a travelling team from Kuching consisting of a Health Sister, Assistant Health Visitors, a Laboratory Technician

and a Dispenser. Health Sisters are posted to Kuching and Sibü, and the Health Matron travels widely visiting Government and Local Authority Clinics throughout Sarawak. There are part-time Lady Medical Officers, attached to the Maternity and Child Welfare Clinics at the Health Centre, Kuching, the Sibü Urban District Council Clinic in Sibü, and the new hospital, Simanggang.

*Dental Health.* The staff of the Dental Section was increased during the year, by the addition of one extra Dental Officer, one Dental Nurse and two Dental Mechanics. In Kuching, structural alterations were carried out at the Health Centre, and a School Dental Clinic, with two Dental Nurses in attendance was completed and brought into use. Plans have been prepared for the extension of this service to Sibü in 1960. One Dental Officer completed a post-graduate Diploma Course in Public Dentistry in the United Kingdom during the year, and a second left for Canada where he is studying for a Diploma in Dental Public Health in Toronto, under the Colombo Plan Scholarship Scheme.

*Mental Health.* Considerable advances have been made during 1959 in the field of Mental Health. The new Sarawak Mental Hospital completed its first full year of operation and is now an efficient, up-to-date institution, second to none in this part of the world. Many improvements have been introduced including out-patient clinics in Kuching, open wards, a social and recreational club for staff and patients, and many types of occupational therapy supervised by a nurse and a Domestic Supervisor, both trained in occupational therapy in Singapore. Visitors to the hospital are encouraged and social evenings, attended by members of the general public, have been held frequently. The average number of patients in the hospital during the year has fallen from about 300 to 260 due to more accurate diagnosis and treatment, resulting in a more rapid turn-over of patients, who are encouraged to return to their home environment as soon as they are fit.

*New Buildings.* In addition to the new 100-bed Simanggang Hospital, which was completed at the end of 1959, other building activities included—

(a) *Extensions to Sibü Hospital.* The extensive programme of alterations and additions to Sibü Hospital was almost completed by the end of the year. Two new forty-

bed general wards were added and new kitchens, laundry and mortuary brought into use. A new air-conditioned theatre-suite with central sterilising facilities was almost completed, and the rehabilitation of the old section of the hospital is also well advanced. When these have been completed and an extension to the Nurses Home built, the scheme will be finished, and Sibuluan Hospital will be a first class modern institution of about 300 beds, undoubtedly the best hospital in Sarawak at present.

(b) *Improvements to Kuching Hospital.* A new Steam Laundry, with washing machines, hydro-extractors, drying tumblers and an ironing-machine, was brought into use during the year, and has proved a great help during the rainy *landas* season. Extensive alterations were also carried out to the X-ray/theatre-suite, and to the Nurses' lecture theatre which was air-conditioned.

(c) *New Dispensaries* were opened at Nonok in the First Division, Spaoh in the Second Division and Mukah in the Third Division.

(d) *New Anti-Malaria Headquarters.* This is being built at the 7th Mile, Serian Road outside Kuching, and will be completed early in 1960.

*Future Developments* include a new cottage hospital at Sarikei in the Third Division which is being built in 1960 and will contain forty beds, an operating theatre and an X-ray section, in addition to out-patient facilities. A small cottage hospital of 15-20 beds is being built at Limbang, in the Fifth Division, as an extension of the new dispensary there. It will contain an operating theatre and X-ray section and a doctor will be posted to the Division for the first time. In Miri, Government is taking over the running of the T.B. Hospital on 1st January, 1960, and plans have been prepared for the take-over of the General Hospital from Sarawak Shell Oilfields Limited by the end of the year.

#### SOCIAL WELFARE

The Sarawak Social Welfare Council is an organisation composed of official and unofficial members, from various races, creeds and walks of life, who voluntarily give their time and service, in an endeavour to help their less fortunate fellow-men. The purpose of the Council, in consultation with Government, is to guide welfare policy in Sarawak and to disburse funds

through the many other voluntary organisations, according to various needs throughout the country. The Council's funds are derived from several sources, which include an annual grant from Government. For 1959 the Government grant was \$190,000. The second Social Welfare Lottery Sweepstake was run and the sum of \$56,802 was derived from this. \$32,250 was received from the Turf Club Lottery. Direct approach to the Council may be made by the individual, by associations, societies, etc., and delegate members are welcome to attend the regular monthly meetings at any time. During December, 1959, the Council held its eighty-eighth monthly meeting.

In addition to the considerable amount of welfare work in its various aspects that was done throughout Sarawak, several main events connected with this section took place. On the 21st of February, His Excellency the Governor of Sarawak, officially opened the new Salvation Army Girls' Home in Ridgeway. Modern, and well-planned with accommodation for one hundred persons, the Home caters for a variety of cases which include babies, children of tuberculosis, leprosy, and mental patients, orphans, crippled or neglected children, unmanageable girls, and juvenile prostitutes. There is also a section for destitute old ladies. Cost was met from Sarawak Funds, and the Home receives a monthly grant from the Social Welfare Council.

During March, through the generosity of the Asia Foundation, a locally born trainee was sent to Australia for a concentrated study course on social welfare work. The course lasted six months and on returning to Sarawak, the trainee was appointed to the government post of Administrative Assistant (Welfare). At the same time the Probation Officer was appointed as official secretary to the Social Welfare Council. This arrangement relieved the Social Welfare Almoner (who previously was responsible for both Social Welfare and Medico/Social work) of Social Welfare duties. Consequently an Almoner service is now available to the various hospitals.

In June a Blind Fund Committee (Sub-committee of the Social Welfare Council) was set up in an endeavour to forward blind welfare work. A sum of \$5,000 for funds was given by the Welfare Council, the money to be used, amongst other things, to pay expenses for the five blind children from Sarawak

who are being educated, at the expense of the Council, in Singapore and Malaya. In September a Building Fund towards a Training Centre and Workshop for the Blind in Sarawak was started. The Rotary Club has taken a deep interest in this work and is prepared to pay for a locally born person to be trained as a Teacher for the Blind.

In addition to Blind Welfare the Council is also bearing expenses for the education overseas of one deaf mute.

#### COMMUNITY DEVELOPMENT

The schemes in the contiguous areas of Entabai and Budu in the Third and Second Divisions have continued to make progress in education, agriculture, co-operative shops and dispensary services along lines designed to improve living conditions in the areas concerned by local effort and organisation. Excellent reports have been received of the boys under training in the United Kingdom who are expected in due course to take over from the expatriate staff now employed. Meanwhile the training of Iban teams to organise community development in *ulu* centres has continued and preliminary work has been done in the form of rubber planting and the setting up of schools in the centres where these teams are to operate.

The schemes at Long Lama and Padawan are now in their last year and proposals for continuation on a permanent basis are under consideration.

The United Kingdom volunteers project provided useful assistance at all community development centres until the boys concerned left for the United Kingdom in September. Of the subsequent intake three were sent to Mr. Wilson at Budu and Entabai, two were attached to government secondary schools, two to Anglican mission schools and one (a girl) to the agricultural extension service.

# X

---

## LEGISLATION

### *Laws of Sarawak*

**T**HE Revised Edition of the Laws of Sarawak (1958 Edition) was brought into force on the 3rd June, 1959.

This Edition comprises nine volumes of which—

(a) Volumes I—V contain all the Ordinances of Sarawak enacted and not repealed or spent prior to the 31st December, 1959, except—

(i) those Ordinances or parts thereof which are listed in the First Schedule to the Revised Edition of the Laws Ordinance as amended by G.N. S.47 of 1959; and

(ii) certain provisions which have been transferred by the Commissioners of Law Revision to the Revised Edition of Subsidiary Legislation (Volumes VII and VIII);

(b) Volume VI—the Reprint Volume which is divided into three sub-volumes, contains the Treaties and Engagements relating to Sarawak, the Sarawak Constitutional Instruments, the Sarawak, North Borneo and Brunei (Courts) Order in Council and subsidiary legislation made thereunder, the Commission of, and the Royal Instructions issued to, the Commissioner-General for South East Asia and the Acts of the United Kingdom specified in the Schedule to the Application of Laws Ordinance together with certain other Acts which apply in Sarawak. Where legislation has been reprinted in this Volume it has, as far as possible, incorporated all amendments made prior to 1st October, 1957;

(c) Volumes VII and VIII contain all the subsidiary legislation of Sarawak in force on the 1st January, 1959 (subject to certain amendments made by the Commissioners of Law

Revision with the approval of the appropriate authority, except—

- (i) all subsidiary legislation specified in the Second Schedule to the Revised Edition of the Laws Ordinance, 1956, as amended by G.N. S.48 of 1959; and
- (ii) all subsidiary legislation made under the Kuching Municipal Ordinance and the Local Authority Ordinance; and

(d) Volume IX contains the Index to the Revised Edition compiled by Mr. J. H. Thompson.

A Revised Edition of Local Government Legislation will, in due course, be produced by the Legal Department.

It should be noted that the Local Government Legislation together with all the legislation specified in the First and Second Schedules to the Revised Edition of the Laws Ordinance, 1956, as amended, will, notwithstanding their omission from the Revised Edition, remain in force until repealed, revoked or spent.

The Sarawak Government *Gazettes* which are divided into five parts by virtue of the Written Law (Simplified Publication) Ordinance (Cap. 3) are separately bound as Annual Volumes at the end of each year.

#### *Legislation during 1959*

Eleven Ordinances were enacted during the year. Of these the following merit comment—

#### *The Kuching (Amendment of Boundaries) Ordinance, 1958 (Ordinance No. 2 of 1959)*

This Ordinance amended the boundaries of the Kuching Municipality by the inclusion of the Pending area which formerly formed part of the local area of the Kuching Rural District Council.

#### *Courts (Amendment) Ordinance, 1959 (Ordinance No. 5 of 1959)*

This Ordinance amended the Principal Ordinance in two respects, namely

- (i) by making provision for the reciprocal service of process and the enforcement of the judgments of Magistrates' Courts in Sarawak, Brunei and North Borneo; and



- (ii) by empowering the court in revising civil cases to order a new trial and by providing for an appeal against an order of revision to the Court of Appeal.

*The Anti-Corruption Ordinance, 1959 (Ordinance No. 1 of 1959)*

This Ordinance, which tightens up the law relating to bribery and kindred offences, is based on the provisions of the Malayan Prevention of Corruption Ordinance, 1950, and, in addition, incorporates certain sections of the Penal Code which were omitted from the Revised Edition.

The Ordinance increases the penalties for certain offences and creates new offences on the subject. It further lays down special rules of evidence relating to offences punishable under the Ordinance and, in particular, provides that the possession by an accused person of pecuniary resources or property for which he can give no satisfactory account may be proved in evidence and may be taken into consideration by a court as corroboration of the testimony of any witness.

*Public Rights of Way Ordinance, 1959 (Ordinance No. 7 of 1959)*

This Ordinance makes provision for the creation of public rights of way over land other than town land, suburban land and land declared to be a development area under the Land (Control of Subdivision) Ordinance. Provisions have also been made for the maintenance, etc., of these rights of way and for the payment of compensation for damage to crops, trees or buildings resulting from the creation of such rights of way.

*The Official Secrets (Repeal) Ordinance, 1959 (Ordinance No. 6 of 1959)*

This Ordinance repealed the Official Secrets Ordinance (Cap. 63 of the 1948 Edition) as the United Kingdom Official Secrets Acts, 1911 and 1920, which apply to Sarawak, contain adequate provisions on this subject.

*The Sago Flour (Control of Exports) (Repeal) Ordinance, 1959 (Ordinance No. 8 of 1959)*

This Ordinance repealed the Sago Flour (Control of Exports) Ordinance, 1948 (Ordinance No. 22 of 1948) the provisions of which were no longer required.

*Copyright (Repeal) Ordinance, 1959 (Ordinance No. 10 of 1959)*

This Ordinance repeals the Copyright Ordinance (Cap. 94 of the 1948 Edition) with effect from the date on which the United Kingdom Copyright Act, 1956, is extended to Sarawak.

*The Protection of Women, Young Persons and Children Ordinance, 1959 (Ordinance No. 3 of 1959)*

This Ordinance which repeals and replaces the Women and Girls' (Protection) Ordinance, 1948 (Ordinance No. 14 of 1948) and the Youthful Offenders' Reception Ordinance, 1950 (Ordinance No. 30 of 1950) makes more comprehensive provisions for the protection of women, young persons and children. Prior to the enactment of this Ordinance, protection had in general only existed for women and girls and was mainly concerned with protecting them from vice. There was no adequate legislation providing for the protection of children and young persons.

The provisions of the Youthful Offenders' Reception Ordinance, 1950, have also been re-enacted in the Ordinance as it was considered desirable to have one instead of two Ordinances dealing with the reception of children and young persons from neighbouring territories who have been ordered to be detained in approved institutions in Sarawak.

*The Pensions (Brunei and Sarawak (Administration Separation) Agreement, 1959) (Special Provisions) Ordinance, 1959 (Ordinance No. 9 of 1959)*

This Ordinance gave legislative effect to the Brunei and Sarawak (Administration Separation) Agreement, 1959, which contains provisions relating to the pensions and gratuities of certain officers who have been retired from the service as a result of the administration separation of Brunei and Sarawak.

The Brunei and Sarawak (Administration Separation) Agreement, 1959, was entered into as part of the constitutional changes in Brunei.

# XI

---

## LAW AND ORDER

### JUSTICE

#### *Introduction*

**A** PART from Imperial legislation, whether by Order in Council or otherwise, the law of Sarawak is to be found mainly in local ordinances and native customary law. Chinese customary law, chiefly in matrimonial matters and in relation to inheritance is recognised to a limited extent, but only in so far as such recognition is expressly or by implication to be found in a local ordinance.

Where Sarawak law is silent, the Courts apply the common law of England and the doctrines of equity, together with English statutes to the extent permitted by the Application of Laws Ordinance (Cap. 2), in so far as the circumstances of Sarawak and its inhabitants permit and subject to such qualifications as local circumstances and native custom render necessary.

#### *The Supreme Court*

On the 1st December, 1951, the Sarawak, North Borneo and Brunei (Courts) Order in Council, 1951, came into force. This Order in Council established one Supreme Court of Judicature, consisting of a High Court and a Court of Appeal, for Sarawak, North Borneo and the State of Brunei. The Court of Appeal has its headquarters in Kuching, but sits as occasion may require in other places of Sarawak, North Borneo and Brunei.

The present disposition of the Judges is as follows: The Chief Justice at Kuching, the Senior Puisne Judge at Jesselton, North Borneo, and three other Puisne Judges, one at Kuching and another at Sibü. One Judge is usually absent on leave.

During the year two hundred and forty-five criminal cases and three hundred and fifty-three civil actions were heard in the High Court as compared with one hundred and seventy-four criminal cases and four hundred and fifty-three civil actions heard in 1958. In the Court of Appeal eight criminal appeals and sixteen civil appeals were heard as compared with nine criminal appeals and twelve civil appeals heard in 1958.

### *Courts of Magistrates*

The Courts presided over by Magistrates are—

- (a) Courts of Magistrates of the First Class or District Courts;
- (b) Courts of Magistrates of the Second Class or Police Courts which are known in their civil jurisdiction as Courts of Small Causes;
- (c) Courts of Magistrates of the Third Class or Petty Courts.

Apart from three legally qualified magistrates who sit at Kuching and Sibü, the remainder are administrative officers who do magisterial work, in Kuching full time, and in other districts and outstations as part of their duties.

Under the provisions of the Courts Ordinance (Cap. 42), in the exercise of their civil jurisdiction, Courts of Magistrates have jurisdiction in every civil matter whereof the value in dispute does not exceed, in the case of the Magistrates of the First Class, one thousand dollars, or where the Chief Justice, by notification in the *Government Gazette*, confers upon any magistrate special jurisdiction, then in a Court presided over by such magistrate, three thousand dollars; in the case of the Magistrates of the Second Class, five hundred dollars; and in the case of the Magistrates of the Third Class, one hundred dollars. Courts of Magistrates have no jurisdiction in proceedings in connection with the recovery of immovable property where there is a *bona fide* dispute as to title registered under the Land Code; application for partition of immovable property; the specific performance or rescission of contracts; the cancellation or rectification of instruments; the enforcement of trusts; and in connection with application for declaratory decrees.

In the exercise of their criminal jurisdiction, the powers of the Courts of Magistrates are as provided in the Criminal Procedure Code as follows—

Courts of Magistrates of the First Class may pass a sentence of imprisonment for a term not exceeding twelve months and a fine not exceeding two thousand dollars, and where the Governor by notification in the *Gazette* declares that the Magistrate specified in such notification shall be a Stipendiary Magistrate, a Court presided over by that Magistrate may pass a sentence of imprisonment for a term not exceeding three years and a fine not exceeding five thousand dollars.

Courts of Magistrates of the Second Class may pass a sentence of imprisonment for a term not exceeding six months or a fine not exceeding one thousand dollars.

Courts of Magistrates of the Third Class may pass a sentence of imprisonment for a term not exceeding three months or a fine not exceeding five hundred dollars.

The Court of any Magistrate may pass any lawful sentence, combining any of the sentences which it is authorised by law to pass.

#### *Native Courts*

Apart from the Courts mentioned in the preceding paragraph there are the Native Courts constituted under the Native Courts Ordinance (Cap. 43). These Courts are the District Native Court, the Native Officer's or Chief's Court and the Headman's Court. An appeal lies from the Headman's Court to the Native Officer's or Chief's Court, and from the latter to the District Native Court and then to the Resident's Native Court. A further appeal may be made to the Native Court of Appeal by way of a case stated on a point of law or native custom. As a general rule the Native Courts are competent to try only cases in which all the parties are natives, including cases arising from the breach of native law and custom; civil cases where the value of subject-matter does not exceed fifty dollars, and claims to untitled land.

Generally, a comparison of the overall figures of cases tried in the lower Courts in 1959 and 1958 shows that there is a decrease in the number of both criminal and civil cases heard in 1959. The incidence of crime, particularly serious crime, fortunately remains low.

There has been no important change in the organization of the Supreme Court during the year.

#### *Probate and Administration*

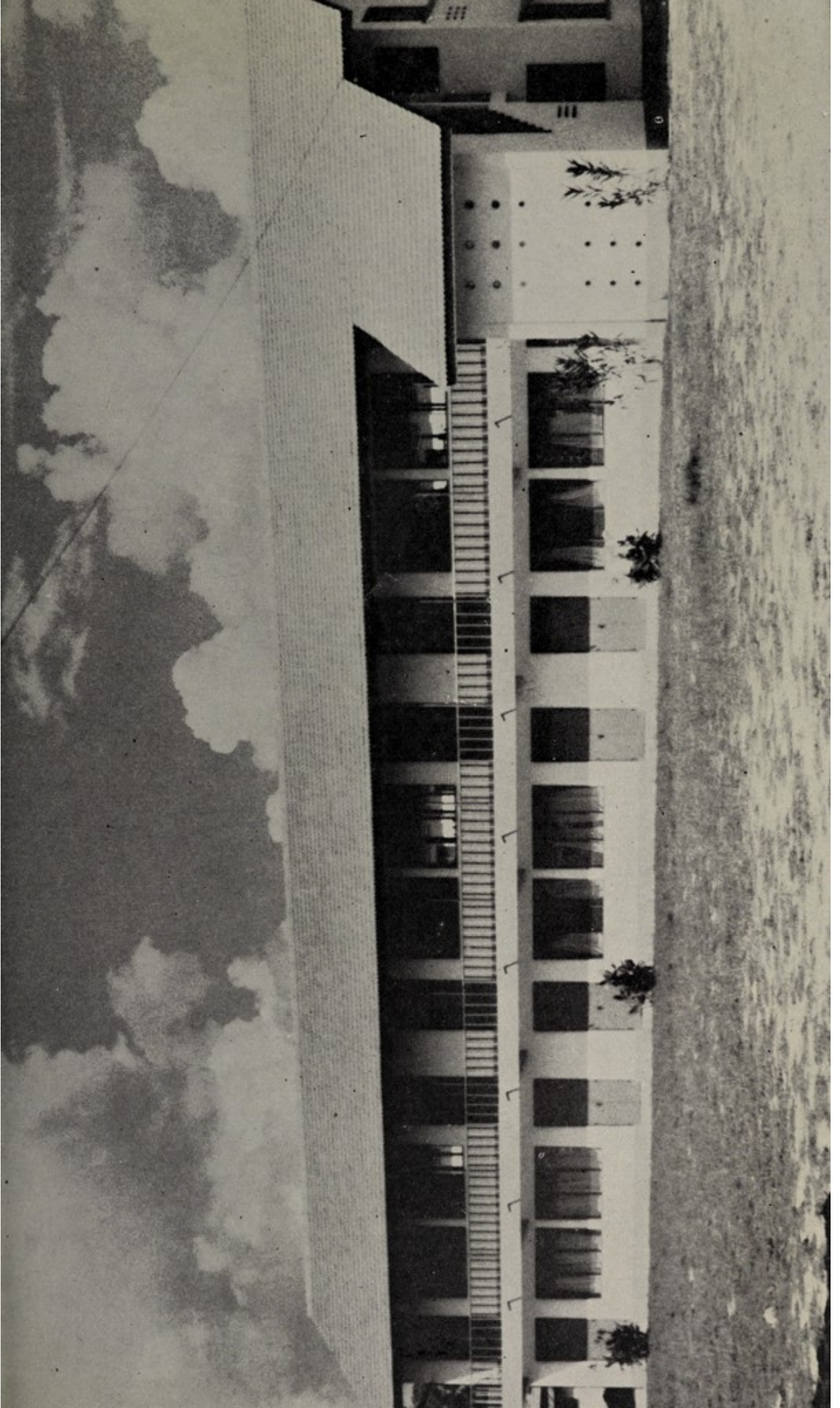
The Registrar, in his capacity as Probate Officer at Kuching in respect of all estates, other than Malay and Dayak estates,

The new Methodist Chinese Primary School in Sibul. (*Chong Chung Sing*)

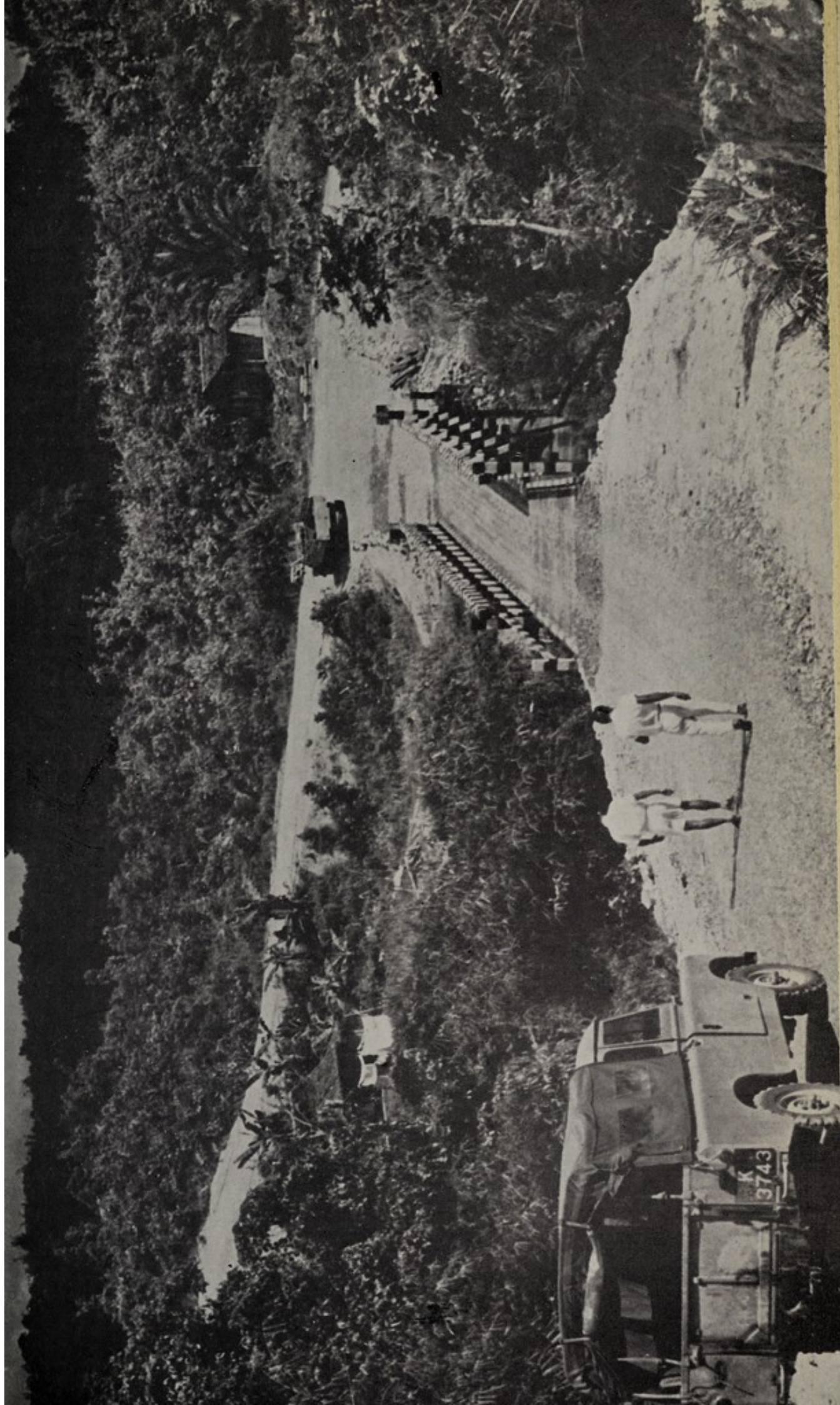
#### *Overleaf:*

The signal guns at the Police Training School, Kuching. A gun is fired every night at 8 o'clock, a practice dating back to the days of the Rajahs. (*Sarawak Museum*)

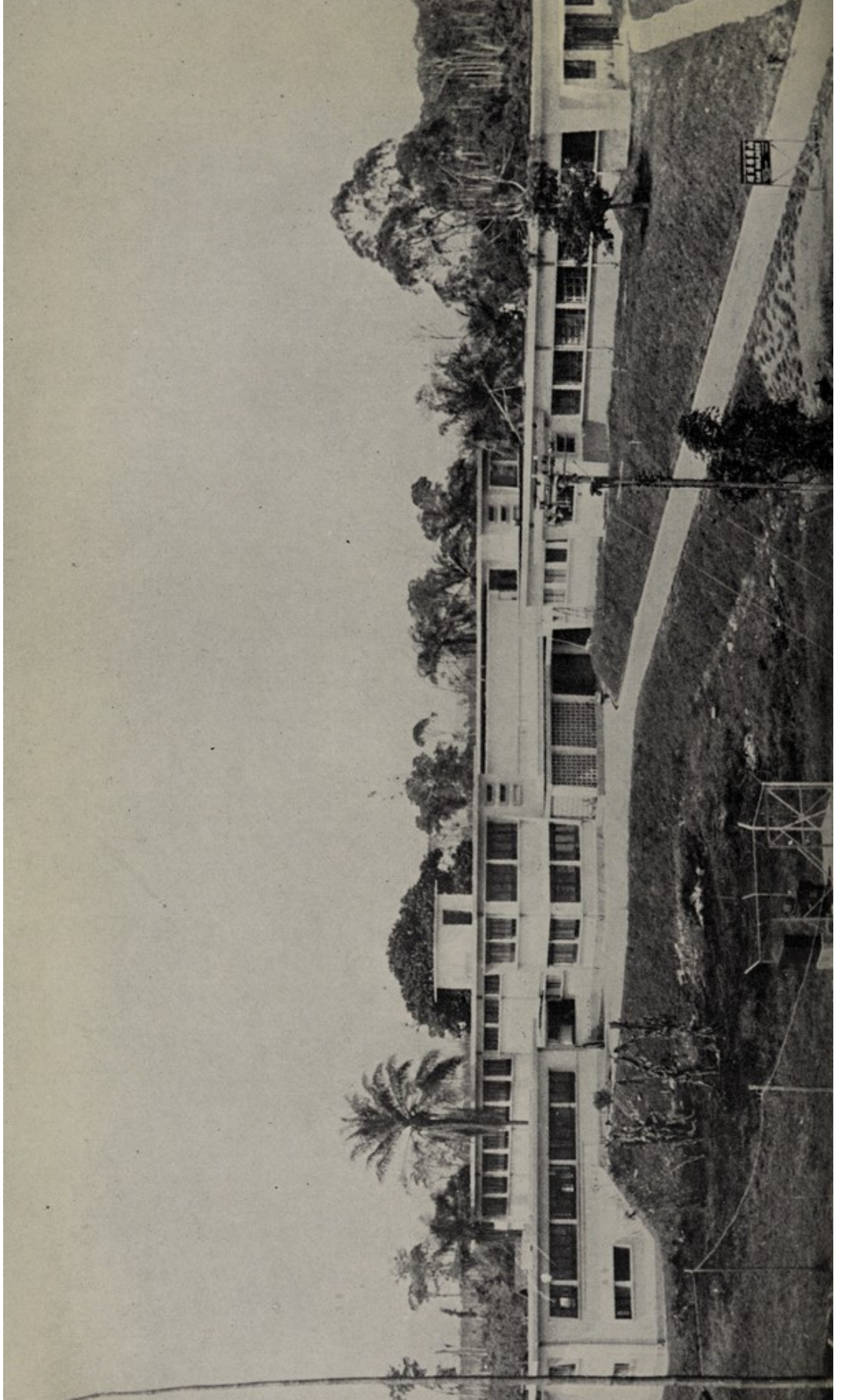
Section of the new road being built by the Kuching Rural District Council and running to Padawan in the heart of the Land Dayak country. (*G.S.I.S.*)











assumed official administration of thirteen deceased persons' estates, as compared with eighteen estates in 1958, in pursuance of the powers conferred upon him by section 3 of the Administration of Estates Ordinance. Of those estates which have been wound up by the Registrar, the assets and property of the estates, after payment of the deceaseds' just debts and liabilities, are distributed to the heirs and beneficiaries according to the shares to which they are entitled by law and custom.

Four grants of probate and eighty-eight Letters of Administration were issued during the year, as compared with three grants of probate and fifty-eight Letters of Administration issued in 1958.

One resealing of a grant of probate issued elsewhere in the British Empire was effected. There was also one such resealing made in 1958.

It is to be noted that elsewhere than in Kuching deceased persons' estates were dealt with by other Probate Officers under section 2 of the Administration of Estates Ordinance.

#### *Lunatic Persons' Estates*

In his capacity as Official Assignee, the Registrar administered two new lunatic persons' estates during the year, bringing the total to five lunatic persons' estates under his administration.

#### *Bankruptcy*

Four creditors' bankruptcy petitions were lodged and dealt with, as compared with four creditors' and one debtor's bankruptcy petitions lodged in 1958.

Although some judgment creditors rely on the High Court (Execution Proceedings) Rules as a machinery in obtaining payments from their debtors, the tendency seems to indicate that creditors are inclined to resort to bankruptcy proceedings for the recovery of their moneys.

#### *Deeds and Bills of Sale*

One thousand three hundred and thirty-one documents were registered under the provisions of the Registration of Deeds Ordinance (Cap. 89), which is now cited as the Hire Purchase Registration Ordinance (Cap. 71), as compared with one thousand two hundred and fifty-two documents registered in 1958. The

View over the newly completed Hospital in Simanggang, the capital of the Second Division. (P. H. Khor)

majority of these were hire purchase agreements, powers of attorney and other miscellaneous agreements.

Eighty-four bills of sale were registered under the provisions of the Bills of Sale Ordinance (Cap. 68). In 1958 the number was one hundred and twenty-one.

#### *Business Names and Limited Companies*

One hundred and twenty-three new partnership businesses were registered during the year, as compared with eight hundred and ninety-six in 1958. The majority of these are dealers in general merchandise and groceries. The large number of businesses registered in 1958 was due to the extension of the provisions of the Business Names Ordinance in 1958 to all firms in the Kuching District carrying on a retail or wholesale trading business on land held under title, whether those firms are engaged in export or import trade or not, but excludes stall holders in markets. It also excludes village shops where they are not situate on land held under title.

Twenty-three locally incorporated and twelve foreign limited liability companies were registered under the Companies Ordinance (Cap. 65), as compared with sixteen and thirteen respectively in 1958. The majority of these are traders in general merchandise.

#### *Patents and Trade Marks*

Four grants of "Exclusive Privileges" were issued as compared with five in 1958. All of these are United Kingdom patents.

Three hundred and twenty-two applications for registration of trade marks were received and attended to during the year. Of these, registration of eighty-eight marks was finalised. In 1958, one hundred and fifty marks were registered. As in 1958, there have been no renewals of registration effected during the year.

#### *Trust*

In the absence of a Public Trust in Sarawak the Registrar administers fifteen trust estates. The majority of these was entrusted to him by orders of the Courts. The Registrar also administers a trust estate created by the Will of a deceased person.

In 1958 fourteen such estates were administered by the Registrar.

*Court Fees, Fines and Departmental Revenue*

The volume of transactions under this heading remains heavy. The revenue collected during the year amounted to \$203,662, as compared with \$202,952 in 1958.

*Moneylenders*

At the close of the year there were eleven moneylenders on the Register. There were sixteen in 1958. Five moneylenders' licences were cancelled during the year.

*Probation (Kuching)*

During the year thirty-nine cases were referred to the Probation Section by the Courts in Kuching. These cases dealt mainly with adolescents, though several adults were involved, and the following figures show how they were disposed of:—

Placed on probation of good conduct under the supervision of probation officers from 1 to 2 years	...	...	...	...	...	20
Bound over to be of good behaviour	...	...				9
Committed to the Sarawak Boys' Home for 2 to 3 years	...	...	...	...	...	3
Sentenced to imprisonment for varying periods	...					7
					TOTAL	<u>39</u>

Of the thirty-nine cases, thirteen of the twenty placed on probation were juveniles under eighteen years and seven were young adults of eighteen and above. Six juveniles and three adults were bound over and three juveniles were committed to the Boys' Home. The seven cases sentenced to imprisonment were all adults. The earlier fears of a continued increase in the number of cases (there were fifty-three cases in 1958, the highest to be recorded since 1949) reflecting the rapid growth of criminal tendencies, particularly among teenagers, was happily found to be of no foundation.

Twenty-one cases were brought forward for supervision from the 1958 case load. In the course of the year fifteen cases completed their probation periods. The majority of these are working or schooling and appear to be doing well. One case was sentenced to two months' imprisonment for a fresh offence and one was recalled and fined for breach of the probation bond.

One juvenile was committed to the Sarawak Boys' Home for three years as probation was found unsuitable, and another had his probation period extended from one year to two years.

Regular visits were made to the homes of probationers and reports were received from them at stated intervals throughout the year. The probationers who were in school or in adult education classes were assisted in their school work. Employment was found for several youths.

#### *Parole, Discharge and Remand*

Ten cases were discharged from the Sarawak Boys' Home on parole or on the completion of their sentences. Supervision was undertaken in all these cases during the parole period and thereafter general aftercare was extended as in all the discharged cases and the probation cases. This aftercare service is, of course, limited to those who have their homes in or near Kuching.

The Probation Section also undertook the aftercare of several discharged prisoners.

#### *Miscellaneous Cases*

These numbered thirty-five during the year and consisted of matrimonial disputes, referrals regarding children beyond parental control, investigations as to means and the family circumstances of offenders against the Excise Ordinance, (Cap. 27). The outstanding feature was the increased use of the probation service in these fields by the courts.

#### *Legislation*

The coming into force of the Protection of Women, Young Persons and Children Ordinance, (No. 3 of 1959) early in 1959, made it possible for children or young persons beyond control or in need of care or protection to be dealt with by probation and other measures (such as institutional treatment) at the pre-court stage. This, together with the subsequent gazetting of three homes as approved institutions for the purposes of the Ordinance, now enables cases of early delinquency to be treated.

#### *Staff*

In October, 1959, the Probation Officer was officially appointed Secretary to the Sarawak Social Welfare Council in

addition to his probation duties. The Council is a Government sponsored welfare body functioning on a country-wide basis. To it are affiliated voluntary welfare organisations on divisional and district levels.

### *In-service Training*

The system of training which this Department introduced in 1958 whereby Registrars and Assistant Registrars stationed in North Borneo and Brunei are to have the opportunity of working in the Supreme Court at Kuching for a few months, has worked out very well. Brunei was the first to take advantage of the scheme by sending the Assistant Registrar at Brunei Town to Kuching for training for three months, followed by the Registrar of the Supreme Court at Kuala Belait.

Simanggang has also sent their Court Interpreter to study court procedure.

### *Establishment*

The Chief Justice, Sir Ernest H. Williams, proceeded on leave in April, 1959, prior to retirement.

Mr. Justice D. R. Lascelles proceeded on leave in May, 1959, and is expected to return in February, 1960.

The appointment of Sir John Ainley, M.C., as the new Chief Justice was announced. His Lordship and Lady Ainley are expected to come to Sarawak in January, 1960.

## CONSTABULARY

### *General*

The highlight of the year was the visit to Sarawak for two days in February of His Royal Highness the Duke of Edinburgh. Police resources were fully extended in the three towns visited by His Royal Highness, but everywhere there was perfect understanding between the public and the police; the largest crowds ever seen in Kuching reacted splendidly to their marshalling, and thereby helped to lessen the strain.

This Royal Occasion provided a precept on which to base a pattern of better understanding between police and public. That there is room for improvement in relations is agreed, and the aim must be to achieve that degree of understanding which

enables any decent citizen to turn naturally and instinctively to the police for help or advice.

"Borneanisation" was on everyone's lips as the report of the Select Committee set up by Council Negri was published towards the end of the year. The terms of reference of the Committee were to consider when and to what extent, under what conditions and generally in what manner public servants recruited outside Sarawak should be replaced by persons locally recruited and to make recommendations and report back to the Council. Publication of the report has emphasized differences of opinion as to the pace at which local officers can replace expatriates. In the Police Force a scarcity of young men of good education places a brake on that pace. In an atmosphere of Borneanisation it may sometimes be difficult to maintain a sense of proportion and to stifle a tendency to turn a walking race into a hundred yards sprint. There are a number of Chinese in the ranks who, with experience, can in due course fill some of the higher posts, but there are fewer Malays and still fewer Ibans. In a Force in which only one-seventh are Chinese, there is likely to be a disproportionate number of Chinese officers to Chinese other ranks. Although the number of Chinese increased from 74 to 107 in 1959, there is still room for many more, particularly for Chinese who do not speak English and who would be content to serve their time in the ranks. There were instances where Chinese enlisted without reference to their parents who, once they had found out, had no difficulty in persuading their sons to resign.

Owing to the high proportion of discharges before completion of the period of probation, direct recruitment to the Inspectorate was stopped in 1958. This was due partly to the lack of training facilities and partly to a poor standard of education. Up to the end of 1957 probationary inspectors received their initial training in Malaya or Singapore. There they were taught laws and police duties appertaining to these territories; different legislation and methods had to be assimilated on their return to Sarawak. As an alternative, an energetic campaign was started to induce young men with a good secondary school education to join the ranks and to work their way up. At the same time, a scheme to educate suitable members of the rank and file up to Sarawak junior certificate standard was introduced.

Selected candidates are known as Commissioner's Cadets; they combine school studies with police duties. Time alone will show how successful this scheme has been.

### *Ceremonial*

Sixteen full guards of honour were mounted in 1959, including two for His Royal Highness the Duke of Edinburgh. Parades for the Queen's Birthday were held at all police stations in the country. A number of guards were mounted in various stations for the Governor, Sir Anthony Abell, K.C.M.G., on his retirement. In Kuching, police lined the banks of the Sarawak River below Fort Margherita while the band played "Aulde Lang Syne" and "Will ye ne'er come back again" as His Excellency finally sailed down the river.

### *Establishment and strength*

There was no change in the authorised establishment of the Force. At the end of the year there was a deficiency of forty-seven other ranks. One gazetted officer remained on secondment to the administration throughout the year.

Mr. A. N. Outram, Deputy Commissioner, left Sarawak on transfer to Brunei on 1st December, 1959, to take up the appointment of Commissioner.

### *Recruitment*

One hundred and three recruits enlisted in 1959; forty-five of them had a secondary school education, but only three had passed the Sarawak local junior examination. No recruits with Senior Cambridge Certificates were enlisted.

### *Training and Education*

An Inspector returned to Sarawak after a six month attachment to the Royal Canadian Mounted Police on a Colombo Plan scholarship. Another Inspector completed a course in police training methods in the United Kingdom on a scholarship awarded by the Sino-British Fellowship Trust. A third Inspector took a course at the Hendon Police Training School. One gazetted officer, two inspectors and sixteen other ranks underwent various courses of training in Malaya or the United Kingdom.

A record number of men have now passed the Lower Standard Law examinations and the two Education Examination Certificates. These are qualifying examinations for promotion



to higher grades or ranks below the Inspectorate and there is tremendous keenness to pass them.

Twelve Commissioner's Cadets took the Sarawak Local Junior Examination in November and three of them obtained Grade III passes. Eighty-six recruits completed their training and were passed out to full police duties. One squad of twenty-four Brunei recruits arrived at the Police Training School in May and are due to pass out in February, 1960.

### *General Orders*

Constabulary general orders were sent to the Government Printer early in 1958 for printing, but unfortunately had to be held back owing to the printing of the Revised Laws. The first proofs were beginning to appear in May, 1959; at the end of the year it was apparent that printing would not be completed until the middle of 1960 at the earliest.

### *Buildings*

The bulk of the 1959 building programme was completed or nearing completion at the end of the year. The Police Training School, which has been housed in very poor buildings, received the lion's share of the programme; a drill shed, one block of five classrooms and a building to house the Constabulary Band practice rooms and offices were handed over to the Training School before the end of the year. A second block of five classrooms will be ready early in 1960. The Band building provides a much-needed and long-awaited practice room of ample dimensions with an air-conditioned office and store. A block of flats to accommodate sixteen non-commissioned officers at Constabulary Headquarters was started before the end of the year. An extension to Constabulary Headquarters was under way and a number of minor works in various stations had been completed. The Police Building Scheme which started in 1954 and provided the sum of \$2,200,000 is nearly exhausted. There remains a vast programme of development to bring police stations and living quarters up to an efficient standard. This is especially apparent in living quarters in the main barrack areas where permanent stone buildings must eventually replace many of the wooden quarters which are of inferior quality, expensive to maintain, depressingly dark and airless and a deterrent to recruiting.

### *Health*

The health of the Force remained generally good. Forty-eight men were admitted to hospital. The incidence of tuberculosis decreased; there were only eight cases as compared with twelve the year before. Beri-beri is fairly common in newly-enlisted recruits; it is very soon cured with a wholesome balanced diet.

### *Welfare*

Welfare Committees continued to function well and commanding officers were able to implement some constructive suggestions. Most police stations now have badminton courts which were provided from the Police Fund; in areas where there were previously no courts they are also popular with schools and the general public.

Rugger has caught on, particularly in the Field Force. Miri police now play regularly, but lack of grounds does not encourage the game in other places. Police soccer had a bad year; two units were represented in the Kuching League and both did badly. The division of talent between various units and losses due to transfers were responsible; better things are expected next year. However, in Bau the police won the local soccer league championship. The Force won the Athletics Inter-Club Challenge Shield and the relay events in the Inter-Club Meeting and in the Sarawak Amateur Athletic Association meeting.

In Bau a police farm has been started which provides fish, poultry and eggs to police families at less than market prices. This is a venture which it is hoped to extend to other units.

The Sarawak Constabulary Co-operative Stores Society Limited and the Sarawak Constabulary Thrift and Loan Society Limited did steady business through the year. A better control of the financial arrangements of some members will have to be exercised in future to prevent men subscribing more than they can afford.

### *Field Force*

Normal routine training was carried out in all platoons with more concentration on jungle warfare exercises. Greater emphasis is now being placed on education, law and police duties in the Field Force.

Combined Field Force and Uniform Branch security exercises were held during the year. Morale is high and, in the absence of active service conditions, this speaks highly for the ingenuity of its officers in providing variations in training programmes.

#### *Marine Branch*

Forty-three small river craft and two launches were in operation throughout the year. The diesel inboard engined boats purchased in 1954 have all outlived their useful life and ten of them were sold by auction; three engines have been retained for transfer to new hulls which will be used for cross-river ferrying in Kuching. One hull for this ferry service was under construction at the end of the year. These diesel boats were never a success on other duties—the heavy hulls made them sluggish and they are extremely noisy. In 1958 it was decided to revert to craft made by local boat builders for the reason that they are built to suit the idiosyncrasies of the rivers they serve. The two Police launches continued to give excellent service; one is now seven years old and the other is twenty-nine.

Two members of the Branch took a three-month engineering course at Kuala Belait. Twenty-four men did short boat drivers' courses with the Public Works Department and at Marine Branch Headquarters.

#### *Radio Branch*

The Force has HF transmitter/receiver stations at Constabulary Headquarters and at three of the Divisional Headquarters. During the year these four stations handled a total of 11,356 messages. The two police launches are equipped with HF sets which will be replaced by VHF equipment in 1960.

The man-pack set (type H.F.15), of which there are thirty-two, have not given the reliable service that is required; they are not fully tropicalized and depend on accumulator type batteries for the power supply. The problem of their weight and size is being overcome by splitting the set into two parts. Enquiries are in hand to find a more suitable type of set for the Field Force operations.

There are twenty-three VHF transmitter/receiver sets which serve thirteen motor vehicles and one motor cycle; they continue to give satisfactory service.

A radio operators' training course was held in 1959 at Constabulary Headquarters. All three trainees, who were instructed by Radio Branch personnel, passed the course and were absorbed into the Branch.

#### *Transport*

The Force motor vehicle strength is twenty-three, excluding motor cycles which number thirteen. At the end of the year it was obvious that unless many of the vehicles are replaced before the end of 1960 there will be a serious shortage of transport. Most of the vehicles were purchased in 1954-55; they have out-lived their useful life and are no longer considered satisfactory for police work. Three new vehicles ordered in 1959 were received before the end of the year and were being altered to police specifications in the Public Works Department Workshops. Two new Landrovers were put into commission at the beginning of 1959.

There is room for improvement in police driving, although it may be considered good by local standards. Steps will be taken in the next year or two to remedy this. Nineteen accidents involving police vehicles were recorded; fifteen of them were very slight.

#### *Stores and Armoury*

Some new methods of storekeeping introduced by the Organisation and Methods Adviser improved efficiency; as a result there were fewer delays in meeting requisitions. Requisitions numbering 2,719 were received and dealt with during the year.

The Armoury is run efficiently and the Armourers were able to cope with most repairs.

#### *Auxiliary Constabulary*

The Uniform Branch of the Auxiliary Constabulary in Kuching continued to give good support to the Regular Police. The strength of the unit was ninety-one all ranks. Attention is being paid to ways and means of making the Auxiliary Constabulary attractive to the higher salaried groups of the community: the training and uniform will need to be revised.

The Field Force Reserve held three training camps, one in Sibü for the Royal visit and two in Kuching. The Sibü camp was the first one held outside Kuching. The strength of the Reserve fell from 203 to 160 in 1959. This fall was the result of the discharge of a number of men who were too old for the rough and tumble of Field Force work.

The Oil Field Security Force, which reinforces the Regular Police in the oil field at Miri in the Fourth Division, was being reorganised at the end of the year in order to bring its functions into line with those of the Regular Police.

### *Crime*

The incidence of crime remains low. There has been a downward trend in crime covered by the Penal Code compared with 1957 and 1958, including a slight decrease in the number of thefts and house-breakings and allied crimes.

Generally speaking, offences against the person remain constant. In all there were ten murders reported, and thirty-five shooting cases were recorded, including accidental shooting.

There has been no particular indication of gang activity developing in Kuching. The menace of gangs formed in 1958 was exaggerated and those in Kuching have proved to be no more than groups of corner boys. There is no suggestion of any organised crime by gangs. In Sibü, Third Division, however, towards the end of the year there were some attempts to organise protection rackets, but early police action prevented their development.

The activities of an organised gang of bicycle thieves and receivers were uncovered. Over fifty stolen bicycles were recovered, and the number of reports of bicycle thefts fell sharply as a result.

### *Traffic*

The number of vehicles in Kuching increased by 449 to 3,542 in 1959. The widening of the main road through Kuching has helped to improve the flow of traffic, but in the business quarters of Kuching congestion on the roads has increased to the extent that the provision of more parking space is becoming urgent. The large number of bicycles in Kuching aggravates the congestion and adds to the hazards of driving.

The Police, with the help of the Kuching Municipal Council and the Borneo Literature Bureau, launched a safe cycling campaign in the schools. When the campaign was nine months old, more than a thousand children had been trained by the police and approximately 901 of them had passed a riding test, which included a thorough check of the bicycle. The schools co-operated magnificently and the Force is very grateful to the Education Department and all the schoolteachers who have put in so much hard work to make the campaign a success. The campaign will continue indefinitely and in 1960 will be extended to Sibu and Miri. Its results should begin to be really felt in the next few years. Whatever its value in that direction may be, it has proved a very useful link between the police and the schools—an achievement in itself.

There were eleven fatal road accidents during the year, as compared with seven in 1958. In Kuching, road accidents decreased by nine per cent and the overall decrease for Sarawak was eleven per cent.

The number of prosecutions under the Road Traffic Ordinance fell from 4,281 in 1958 to 1,924 in 1959. A system of warnings to first offenders in minor traffic infringements was introduced in 1959, and accounted for the appreciable decrease in prosecutions.

#### *Registration of Aliens*

The number of registered aliens increased from 1,884 to 2,281 in 1959—736 new registrations were reported and 339 aliens left the country or died during the year.

#### *Registration of Societies*

Three hundred and ninety-one societies have now been registered under the provisions of the Societies Ordinance, 1955. During the year under review forty-seven new societies were registered and two were awaiting registration at the end of the year. Two societies were refused registration on the grounds that they were likely to be used for purposes prejudicial to peace and good order. One society ceased to exist.

### PRISONS

#### *Staff*

The prison staff on 31st December, 1959, was one superintendent, one assistant superintendent, four gaolers, fifty-

nine warders of all grades, and three wardresses; this was one below strength.

#### *Prison Population*

One hundred and sixty-five male and seven female prisoners were committed during the year.

#### *Recidivism*

There were ten known recidivists among the 115 prisoners still serving at the end of 1959. The total for the year was eleven.

#### *Prison for Women*

The daily average of female prisoners was two. They were mainly employed in basket-making and gardening.

#### *Open Prison—Pending Farm*

This farm, 2.16 acres more or less, is about four miles from the Central Prison. A monthly average of fifteen selected offenders were housed there. They were mainly employed in planting vegetables. The farm produced a daily average of fifty-four katis of vegetables.

#### *Spiritual Welfare and Education*

Prisoners who are members of the Anglican and Roman Catholic Churches attended Sunday Services in the main office which is used as a Prison Chapel, and religious instruction was given by their respective ministers.

Muslim prisoners are given facilities to say their prayers in the prison.

Prisoners who are keen on education are taught to read and write Romanised-Malay at evening classes which are held three times a week.

#### *Library and Organised Games*

The Library, where reading matter in English, Chinese, Malay and Iban is provided, was very popular, and so were badminton, table tennis and draughts. Prisoners are permitted to make their own guitars, violins and ukeleles during their spare time on Saturdays in the prison workshop. Radio listening was permitted between 6 and 9 o'clock nightly, and Radio Sarawak was always the favourite station. The Information Service con-

tinued to give cinema shows in Kuching Prison, and these were always well attended.

### *Health*

Health was good. Ten prisoners were admitted to hospital for treatment which could not be given in the prison hospital, where all minor cases were treated.

### *Labour*

The following were the trade parties: carpentering (furniture, house and boat-building), tinsmithing, tailoring, vegetable planting, blatt-making, laundry, basket-making and reseating of chairs.

Other parties were employed in work on Government compounds.

### *Visits*

The visiting Justices paid monthly visits to the prisons, and reported favourably on the compound and prison buildings, and on the treatment of prisoners. The Chairman of the Prisoners' Aid Society, Mr. F. James, M.B.E., and a member of the Salvation Army, visited Kuching Prison every month and interviewed prisoners before their release. Where necessary, money, clothing and food were given to them and their dependants.

### *Executions*

There were two executions. One of the prisoners executed was a woman.

### *Remission*

Remission of one-fourth of a sentence is granted to male and female prisoners serving a sentence exceeding one month.

### *Revenue*

The market value of articles made by prison industries, garden produce and workshop was \$49,521.99, compared with \$43,549.27 for 1958.

## SARAWAK BOYS' HOME

The Home, at Sungei Priok on the Pending Road near Kuching Town, was established in 1948. At the end of 1959 there were thirty-one boys at the Home, one on remand. They were aged from thirteen to seventeen. Discipline was good and there were no serious breaches.



### *Religious Instruction*

A Muslim religious class was conducted four nights a week by the teacher of the Home and the Malay boys attended services at the Mosque every Friday and participated in the celebration of the Prophet Mohammed's Birthday. Church attendances on Sundays and other Church festivals were arranged for the Christian boys.

### *Health*

The health of the boys was good. The Home was regularly visited by a Medical Officer.

### *Home Activities*

The boys played football, basketball, badminton and rounders. Table-tennis and other indoor games were also provided.

Through the kind offices of Miss S. Heinze, English classes were conducted twice a week in the afternoon by the student-teachers of the Batu Lintang Teachers Training College.

The Information Service Cinema Unit gave monthly cinema shows at the Home and the boys were also permitted to attend local cinemas without charge. This generosity by the management of the Cathay Cinema and the Hon'ble Mr. Willam Tan, C.B.E., owner of the Odeon Cinema, was very much appreciated.

The annual Christmas Party was held at the Home on the 19th of December, 1959. His Excellency the Officer Administering the Government was present. A concert and exhibition of plants, arts and crafts produced by the boys were also held. Christmas gifts were made to the children of the Salvation Army Girls' Home and to the children of the staff of the Home.

### *Occupation*

The boys were taught basketry, carpentry, pottery, fruit-growing, fish-breeding, pepper, coffee, vegetable and poultry farming, and in their leisure hours, model-making. The Home was self-sufficient in vegetables and eggs and a surplus was sold for the benefit of the Amenities Fund.

### *Good Conduct System*

This provided good conduct money at the rate of \$1.00 a week for any boy whose work and conduct was good.

### *Advisory Board and Parole*

This Board, established in 1950 with the Director of Education as Chairman and six members appointed by His Excellency the Governor, held monthly meetings to review the progress made by those boys who had completed their first year of detention, and to make recommendations to the Chief Secretary for release on parole. The Probation Officer attended the meetings to report on home circumstances and other relevant matters and gave valuable help.

### *Amenities Fund*

The Fund gets its revenue from donations, the sale of surplus eggs, vegetables, fruits, plants and arts and crafts produced at the Home. Interest from the Post Office Savings Bank was also credited to it. The revenue up to the 31st of December, 1959, was \$1,492.22. The Fund is held under the control of the Superintendent of Prisons and some of the money is used for entertainments at Christmas and the New Year Festivals.

## XII

---

### PUBLIC UTILITIES AND PUBLIC WORKS

#### WATER SUPPLIES

THE work carried out on water supplies during 1959 has consisted mainly of the development and carrying into effect of the broader policy decisions made by Government during 1958, in respect of water supplies in Sarawak.

The Kuching Water Board has managed and controlled the affairs of the Kuching Water Supply in accordance with the powers conferred on it by the Water Supply (Amendment) Ordinance which became effective on 1st January, 1959. The Sibü Water Board has similarly controlled and managed the Sibü Water Supply in accordance with the similar powers conferred on it by the same Ordinance.

#### *Kuching*

The Kuching Water Board has met six times under the Chairmanship of the Director of Public Works. An Engineer and Manager have been appointed, considerable progress has been made on the administrative work in connection with metering and billing and a satisfactory continuity of supply has been maintained. The following are the figures for water supplied during 1959:—

Matang	456,779,750 gallons
Batu Kitang	338,131,000 gallons
	<hr/>
	794,910,750 gallons
	<hr/>

This indicates an average daily consumption of 2.178 million gallons per day to an estimated population of 60,000 persons.

Of this quantity of water supplied some 576,000,000 gallons have been accounted for on consumers' meters.

No increase has been made in reservoir capacity which remains at 3,703,000 gallons when the Datu Muda tanks are full.

Charges for water are:—

Domestic	\$1.25 per 1,000 gallons
Domestic/Commercial	\$1.50 per 1,000 gallons
Commercial	\$2.00 per 1,000 gallons

#### *Lundu*

The Lundu Water Supply was brought into use in November, 1958, and up to the end of 1959 a total number of seventy-eight connections have been allowed. The supply has worked smoothly throughout the year and a daily average of 18,000 gallons of water is supplied to consumers. The water supply is at present untreated.

#### *Santubong*

The water supply to this small *kampong* has functioned satisfactorily and has met the needs of the *kampong* and the holiday bungalows.

#### *Simanggang*

The work of laying the distribution mains is now completed and emergency supplies were provided as necessary during the year. The water, as it is drawn from the wells, is not suitable to supply to consumers and so work was commenced in December on a purification works. Completion is expected in 1960.

#### *Sibu*

The Sibu Water Board has controlled and managed the Sibu Water Supply since 1st January, 1959. Considerable progress has been made in metering and billing for water and additional staff has been recruited. The Sungei Merah Water Supply has been absorbed into the Sibu Water Board and a full supply has been maintained as far as the airport, and to the village of Sungei Merah.

The quantity of water supplied from the Rejang River through the Bukit Lima purification works was 268,650,000 gallons for the year 1959, of which 222,584,382 gallons have been accounted for on consumers' meters (i.e. 84%). The average daily consumption over the year was 710,000 gallons, and the maximum quantity of water supplied in any one day was 910,000 gallons (in January, 1959).

Charges for water are:—

Domestic	\$1.25 per 1,000 gallons
Domestic/Commercial	\$1.50 per 1,000 gallons
Commercial	\$2.00 per 1,000 gallons

### *Sarikei*

The tubewells at Sarikei are continuing to supply water to standpipes in the area. The necessary purification works have been designed and specialist equipment ordered in anticipation of completion in 1960.

### *Binatang*

Construction of the distribution system is completed and a supply is being afforded to the town by one of the well pumps driven by a portable generator. The appearance of a heavy iron content in the water means that a purification plant will need to be installed in 1960. Water is at present pumped to an overhead storage tank of 150,000 gallons capacity. Supplies are only offered by standpipe at present and the daily consumption is about 25,000 gallons.

### *Mukah*

A continuous supply of water was maintained, but consumption is restricted by the brownish colour of the water. However, considerable research has been done by the Chemist during the year and has proved that the water is responsive to treatment by a modified method. An estimated population of 2,700 consume about 60,000 gallons of water per day.

### *Miri*

Miri is supplied with a fully purified Class I quality water taken in bulk from the Sarawak Shell Oilfields supply system. The continuity of water supply has been satisfactory but the consumption has been unduly high at 420,000 gallons per day. A new system of rating will be brought into force in 1960.

### *Bintulu*

This is a small gravity water supply based on a small dam four miles from the town. Water is piped into the town by a 6-inch pipeline. There is an elevated tank near the town centre of 25,000 gallons capacity. The population of 3,300 is supplied with 110,000 gallons of water per day. There are 307 connections

including thirty-six standpipes. The system operated well during 1958, though the pressure was rather low, and the water was untreated. However, the watershed is very small and shortages may occur during long dry spells.

#### *Lawas*

Lawas has a mass concrete dam, a straining chamber of concrete and two miles of 5-inch pipe into the town. Supply has been by public standpipe during the past year.

#### *Limbang*

This is an old supply and feeds water to about 3,000 persons direct from two impounding dams, Wassia Hitam and Sungei Poyan, which have a combined capacity of about 310,000 gallons. It is not possible to quote the total consumption as there are no meters on the system. During 1958 apparatus has been ordered, delivered and installed to measure the performance of the system in order that recommendations may be made for the improvement of the supply. There are 119 consumers on the books. During 1959 investigations and recommendations have been made to improve this supply, and are now being considered by Government.

#### *General*

Planning and construction are well advanced for the new water supplies at Marudi, Serian, Kapit and Kanowit.

### G A S

#### *Miri*

Applications for the supply of gas were received during the year, the total number of services at the year's end amounting to 700.

### BROOKE DOCKYARD AND ENGINEERING WORKS

Since the 3rd June, 1959, the Dockyard has been under the control of the Public Works Department, and fundamental changes have been made in the administration.

Overall direction and control is exercised by the Director of Public Works (who is also designated General Manager of the Dockyard), while the various sections have been re-organised under the control of the appropriate branch heads of the Public Works Department.

Concurrently with the above, good progress has been made with the physical re-organisation under the Development Plan, and the completion of the building works is being pressed forward as this is considered to be of major importance in increasing the output of the Workshops.

Some new machinery has been received and installed and the re-organisation of the machine shop and interior of the main workshop has been completed.

#### PUBLIC WORKS

##### *Buildings and Civil Engineering Works*

The volume of building works carried out during the year was again very large and all professional and the technical staff directly concerned with building worked to maximum output. The range and diversity of works was also extremely comprehensive but schools, hospitals and housing predominated.

In addition to this comprehensive programme of new works a very extensive programme of maintenance work and minor building works was carried out, and with a view to reducing maintenance costs much statistical, survey and experimental work was carried out. Assistance to Local Authorities continued to be given whenever requested, this usually taking the form of both professional advice and services.

Buildings completed during the year included a Secondary School in the First Division, new offices for the Information Department, Kuching, a new general hospital at Simanggang, a new Band Practice Room and two blocks of Classrooms for the Police Training School, Kuching.

A brief review of some of the building projects on which construction continued during the year is as follows:—

Secondary School 24th Mile Kuching/Serian Road, First Division.

Overall expenditure \$1,217,621 on a two stream Secondary School plus boarding and staff accommodation and playing fields.

Secondary School Miri, Fourth Division.

As above but costing \$1,219,823.

Sibu Hospital Works, Third Division.

Complete Scheme of new wards, kitchens, operating theatre, nurses home—\$1,510,600.

Class II Quarters, Kuching, First Division.

(a) Scheme of 15 Class II Quarters costing \$422,000.

(b) Scheme of 12 Class II Quarters costing \$522,322.

Teacher Training College, Batu Lintang, Kuching, First Division.

Scheme consisting of student teaching blocks, Assembly Hall, Primary School, specialist teaching accommodation, staff quarters, boarding accommodation, library, buildings for religious activities, common room, dormitories, etc. Scheme Value \$2,500,000.

New Government Offices, Kuching, First Division.

Scheme to rehouse Agriculture, Forestry and Lands and Surveys Headquarters.

Scheme value \$959,674.

Police Flats, Kuching, First Division.

Block of flats for Sarawak Constabulary—\$193,086.

Police Training School Development, Kuching, First Division.

2 Blocks Classrooms and new Band Room.

Value \$169,800.

Port Development, Kuching, First Division.

Construction of two 300' 0" Transit Goods Sheds and two Customs Offices.

	<i>Completed</i>	<i>In Progress</i>
Quarters Class I and II	11	17
Quarters Class III and IV	67	22
Barrack Accommodation	2	3

### *Wharves*

The construction of the wharf for the new port area in Kuching progressed well. The wharf, which was started in 1958, was originally intended to be 600 feet long. In the second half of 1959, however, it was decided to extend it a further 200 feet to give a total length of 800 feet. Although completion of the original contract was not expected before September, 1959, the contractors, Messrs. Gammons (Malaya) Limited, had almost completed the whole 800 feet at the end of the year.

The construction of godowns, roads and other services in the port area was started during the year.



A new floating wharf was built at Kanowit in the Third Division. This is a reinforced concrete pontoon to a new design which will, it is hoped, provide an economical alternative to the timber wharves which are so numerous in the country.

#### *Town Development*

Work on the development of bazaar areas in Sibul, Miri, Lawas, Simunjan, Batu Lintang (Kuching), Marudi and Limbang progressed steadily.

#### *Airfields*

At the end of 1959, Malayan Airways introduced a service of *Viscount* aircraft to Kuching, and it was necessary to extend the runway at Kuching airport to a new length of 5,100 feet. The extension of 600 feet was completed in December and earthworks to provide a stopway beyond the end of the extended runway, and to provide for further extensions in the future, were started during the year. It is worthy of note that the surface on the runway extension is the first example of a machine laid bituminous surface in Sarawak.

Extensions to the runways at Sibul and Bintulu were also undertaken. At Bintulu, the work was carried out by the Sarawak Shell Oilfields Limited, and a total length of 3,900 feet (including stopways) is now available. At Sibul earthworks were substantially completed in 1959 to provide an extended runway 4,500 feet long.

### ELECTRICITY

The Sarawak Electricity Supply Company Limited, which is generally known as SESCo., supplies electricity to all major population centres in Sarawak. It had at the end of 1959 an authorised share capital of \$10,000,000 all of which had been taken up by the Government of Sarawak who are the sole owners of the Company. The capital taken up during the year was \$2,100,000.

The electricity supplied takes one of the two following forms:--

- (a) All stations except Mukah 400/230 volts A.C. 50 cycles;  
or
- (b) Mukah only 460/230 three-wire D.C.

The hours of supply also vary according to the size of the town being supplied and in six of the sixteen stations comprise a 24-hour service, the remainder being in effect an evening to morning supply. All generation prime movers on the system are Diesel engines.

H.T. distribution voltages now in use are 11 kV and 6.6 kV and both underground cable and overhead lines are employed at these voltages.

During August of 1959 the new Sungei Priok power station started to supply the whole of Kuching town and its outlying districts. The commissioning of this station allowed the old power station, situated in the centre of Kuching to be closed.

The generating sets now installed at Sungei Priok are three new 1,350 kW sets generating at 11 kV. Three further 400 kW sets transferred from the old power station are at present in the course of installation. The power station building has been so designed as to allow for a complete complement, in due course, of eight 1,350 kW sets, or their equivalent.

In conjunction with the new power station the new 11 KV and redesigned 6.6 kV distribution system came into use allowing a great deal more flexibility in day to day operation and for new construction, maintenance and repair.

In both Kuching and Sibul work proceeded well on the installation of Low Tension underground supply systems. This work when completed will allow the removal in these areas of all overhead lines, some of which are both unsightly and technically unsatisfactory.

During the year extra generating plant was installed and commissioned in the following stations:—

Simanggang, Sibul, Kanowit, Mukah, Miri,

bringing the total generating capacity of the system including Sungei Priok up to 7,913 kW from last year's of 6,189, i.e. an increase of 27 per cent.

A completely new power station, and its associated distribution system was brought into service at Kapit, thus giving this township its first public supply of electricity.

The conversion of the supplies at Bintulu and Binatang from D.C. to A.C. was also completed.

A total of 13,317,311 units was sold by SESCo. during the year, an increase of 15.5 per cent over 1958. The number of consumers also increased by 10.3 per cent from 10,393 to 11,467.

*Public Electricity Supplies not under the control of Sarawak Electricity Supply Company Limited*

The licensing of minor public electricity supply schemes not under the control of the Sarawak Electricity Supply Company Limited, is carried out by the Chief Electrical Inspector under the provisions of the Electricity Ordinance.

These schemes are associated with small bazaars and settlements which are not normally considered economic for development by SESCo.

They are financed mainly by individuals or by the collective effort of the communities concerned and provide no more than the amenity of electric light.

A total of twenty-one such schemes have been licensed up to the end of 1959 with a total installed capacity of approximately 255 kilowatts.

The period of supply is generally six hours per night though three schemes provide a twelve-hour supply.

With the exception of three small schemes which provide D.C. supplies, all others provide single or three phase, 50 cycle alternating current supplies at 230/400 volts.

# XIII

## COMMUNICATIONS

### AIR

#### *General*

THE introduction of regular air schedules to Marudi by Twin Pioneer aircraft of Borneo Airways saw the completion during 1959 of aerodrome construction visualised in the 1955/59 Development Plan. During this period, aerodromes were constructed at Simanggang, Mukah, Bintulu, Marudi, Lawas, Sematan, Long Akah and Belaga.

In addition the runways at Kuching and Bintulu were extended and similar work was in progress at Sibu at the end of the year.

Viscount aircraft were introduced on the scheduled routes of Malayan Airways, linking Kuching with Singapore on the one side, and Brunei and Jesselton on the other.

A Flight Information Centre at Labuan, was established as a unit of the Directorate of Civil Aviation, to provide aeronautical and meteorological information, and search and rescue co-ordination services, for aircraft flying over the British Borneo Territories and their adjacent sea areas. Previously, these services were regulated from Singapore.

#### *Public Air Transport*

Public air services in operation at the end of 1959 were as follows:—

#### INTERNATIONAL AIR SERVICES

<i>Operator</i>	<i>Aircraft</i>	<i>Route</i>	<i>Weekly Frequency</i>
C.P.A.	DC6	Hong Kong-Labuan-Hong Kong.	Once in each direction.
Malayan Airways	Viscount	Singapore-Kuching-Brunei-Jesselton.	Three times in each direction.

<i>Operator</i>	<i>Aircraft</i>	<i>Route</i>	<i>Weekly Frequency</i>
Malayan Airways	DC3	Singapore-Kuching-Sibu.	Three times in each direction.
"	"	Singapore-Kuching-Sibu-Labuan-Jesselton.	Once in each direction.
"	"	Singapore-Kuching-Sibu-Brunei-Jesselton-Sandakan.	Twice in each direction.
"	"	Singapore-Kuching-Sibu-Brunei-Jesselton.	Once in each direction.

## INTERNAL AIR SERVICES

*Twin Pioneer Aircraft of Borneo Airways*

<i>Route</i>	<i>Weekly Frequency</i>
Labuan-Brunei-Lutong	Twice in each direction.
Lutong-Marudi	Twice in each direction.
Lutong-Bintulu-Sibu	Three times in each direction.
Sibu-Mukah	Twice in each direction.
Sibu-Simanggang-Kuching	Twice in each direction.
Kuching-Sibu	Once in each direction.
Labuan-Brunei-Lutong-Bintulu-Sibu	Once in each direction.

*Private Aviation*

The Brunei Shell Petroleum Company has the largest private aviation organisation in Borneo. They operate a fleet of three Percival Prince aircraft for general communications and company schedules and these aircraft are also used by Sarawak Shell Oilfields Limited, which has a private airfield at Lutong. In addition, two helicopters are chartered from World Wide Helicopters Limited for communications with exploration sites inland and offshore, drilling sites and survey work.

The Borneo Evangelical Mission operated a Piper Tri-Pacer in addition to their Auster Auto-Car during 1959. The Mission relies on its aircraft for communication with the various Mission stations in the interior of Sarawak and North Borneo. The

Mission's three pilots, of whom two are also qualified aircraft engineers, are all missionaries. Headquarters are at Lawas.

#### *The Sarawak Company Limited*

The Sarawak Company operates an Auster from a private airfield at Selalang in the Lower Rejang.

#### *Military Aviation*

The Royal Air Force and Commonwealth Air Forces continued to make frequent use of Kuching, mainly as a re-fuelling stage.

The most notable event of the year was the parachuting into Bario in the Kelabit area of a team of R.A.F. parachutists, all volunteer members of the Far East Parachute Rescue Team. A Valetta aircraft of the Far East Air Force dropped five R.A.F. personnel and a representative of the Department of Civil Aviation who acted as interpreter and liaison officer, to bring medical aid to a seriously ill Kelabit woman. An R.A.F. doctor was amongst those parachuted, and provided the necessary medical aid which undoubtedly saved the woman's life. The team then travelled on foot and by canoe fourteen days to the coast. The leader of this expedition, Squadron Leader R. W. Mullins, has since been awarded the Air Force Cross.

#### WATER

The sea and inland water communications of Sarawak are maintained by four main types of vessels.

(a) *Ocean-going ships* which take export cargo of a homogeneous nature directly to nearly all continents. These cargoes are oil, bauxite and timber. The oil and bauxite are loaded at sea moorings or anchorages off Miri and Sematan, respectively, and the timber is loaded at anchorages a few miles inside the mouth of the Sarawak River (Sejingkat), Batang Lupar (Triso and Lingga) and Rejang River (Tanjong Mani).

During 1959, Tanjong Mani remained the most important timber loading point for sawn timber and logs. The increased entry of Japan this year into the timber market not only raised the number of ships calling at Tanjong Mani but revived the use of the Batang Lupar anchorages. Ships also started using the anchorage in the Sarawak River off Sejingkat. Since short

distance open sea towage is involved in bringing the log rafts to Sejingkat, this trade fell off a little with the advent of the *landas* season (North-East Monsoon, October/March).

Oil was again the biggest export from Sarawak.

From Sematan the target figure of 200,000 tons of bauxite export was reached, all loading operations taking place during April/October.

(b) *Short Sea Traders*. These are intermediate sized vessels of length and draught permitting them to reach or berth alongside at Kuching and the Rejang River ports. (At Miri they discharge and load from lighters whilst at anchor two to three miles off-shore). These are the main import and passenger carriers, general cargo coming mainly via Singapore and Hong Kong, rice and maize from Siam and Cambodia. Services also exist for direct shipments by ships of this category to or from Japan and the East Coast of Australia but cargo tonnage moved this way is still small. Singapore's entrepot trade with Sarawak has been slightly affected by this recent trend in more direct trading with South East Asian countries, and this type of trade is being built up with Hong Kong. Apart from the oil, bauxite and timber previously mentioned Sarawak's other main exports, rubber, pepper, and, in the first quarter of 1959, *illipe* nuts, are still mainly handled and transhipped through Singapore except for some rubber and catch which is shipped to Hong Kong.

The only large increase to this short sea trade which occurred during 1959 compared with previous years was the record export of 22,000 tons of *illipe* nuts mainly from the Rejang during the first four months of the year. The existing services supplemented by two trips of a chartered vessel, were able to handle the extra tonnage. Despite this, during the year companies new to Sarawak commenced trading so that by the end of the year the services to and from Singapore and Hong Kong had practically doubled.

One service between Singapore and Rejang ports was extended to Brunei and the weekly schedule maintained by the addition of an extra vessel. Another company started a direct service to and from Japan.

(c) *Local Coastal Vessels*. These craft are mainly of wooden construction and of between twenty and sixty gross tons,

numbering approximately 170 vessels. Some of these vessels connect the main towns of Kuching, Sibuan and Miri with their surrounding areas (almost all parts of Sarawak are accessible from the coast by river and the rivers are frequently the only existing means of communication). Others are engaged in the timber trade delivering cargo direct alongside timber loaders at Tanjong Mani. A small passenger vessel of a much higher standard of construction and comfort than the others, namely the steel built M.V. *Rejang* of the Sarawak Steamship Company, maintains a regular service between Kuching and the Rejang River ports, sailing from Kuching every fifth day.

Generally speaking 1959 has not been a good year for this trade. Earnings from passengers have been affected by the increase in air services and the timber-carriers have lost trade due to the increase in log exports as opposed to sawn timber.

More casualties were recorded than in previous years, resulting in two cases of loss of life. The figures are:—

Missing	— One fishing vessel with three persons on board.
Foundering	— Four vessels with the loss of two lives.

Grounding and refloating — Ten cases reported.

(d) *River Craft*. These include cargo and passenger launches serving their own particular river and its tributaries. The passenger launches are rather slow and do not offer a high degree of comfort. Because of this hundreds of fairly fast, privately owned, small craft exist, powered by outboard motors. In Sarawak this arrangement offers services the equivalent of the bus and private car services in more developed countries.

#### *The Government Fleet*

The Sarawak Government maintains its own fleet of forty vessels for coastal and river communications. Some of these are specialized craft and include a lighthouse tender, a water barge, two landing craft, four stone carriers and two self propelled cargo lighters. The rest are passenger launches. There were no new additions to the fleet during 1959. M.L. *Alice Lorraine*, a sixty-foot passenger launch, was sunk in collision with a local coaster in the Rejang River in November. The figures for passengers carried show a 20 per cent increase over those for 1958.



*Ancillary Services*

The Marine Department includes a Buoys and Lights Department and a Hydrographic Survey Unit. Both had very full programmes during the year.

Besides the regular maintenance of existing electrical mechanical equipment, the Buoys and Lights Department established two new light buoys and four new lights. Improvements were also effected at three of the main lighthouses.

During the year the various hydrographic surveys covered an area of seventy-six square miles and 900 miles of soundings were run. Four local charts were drawn and issued.

## DEEP SEA TONNAGE, 1959

	<i>Inwards</i>	<i>Outwards</i>
Kuching	420,734	316,631*
Rejang River	1,174,509	1,140,115
Miri	2,808,056	2,805,426
Limbang	27,971	29,122
TOTAL	<u>4,431,270</u>	<u>4,291,294</u>

## COASTWISE TONNAGE, 1959

	<i>Inwards</i>	<i>Outwards</i>
Kuching	101,842	164,534*
Lundu	9,189	9,346
Simunjan	18,464	20,184
Sematan	6,865	6,586
Simanggang	12,088	11,852
Betong	7,321	7,359
Sebuyau	6,711	6,826
Lingga	18,747	18,929
Pusa	13,153	13,915
Debak	3,585	3,534
Saratok	5,525	5,747
Sibu	65,269	64,701
Binatang	22,489	24,265
Sarikei	24,963	27,928
Tanjong Mani	51,352	39,016
Balingian	7,597	7,651

\*The large differences apparent are the result of sea-going tonnage calling at Kuching as first port of call and then clearing for a coastal port.

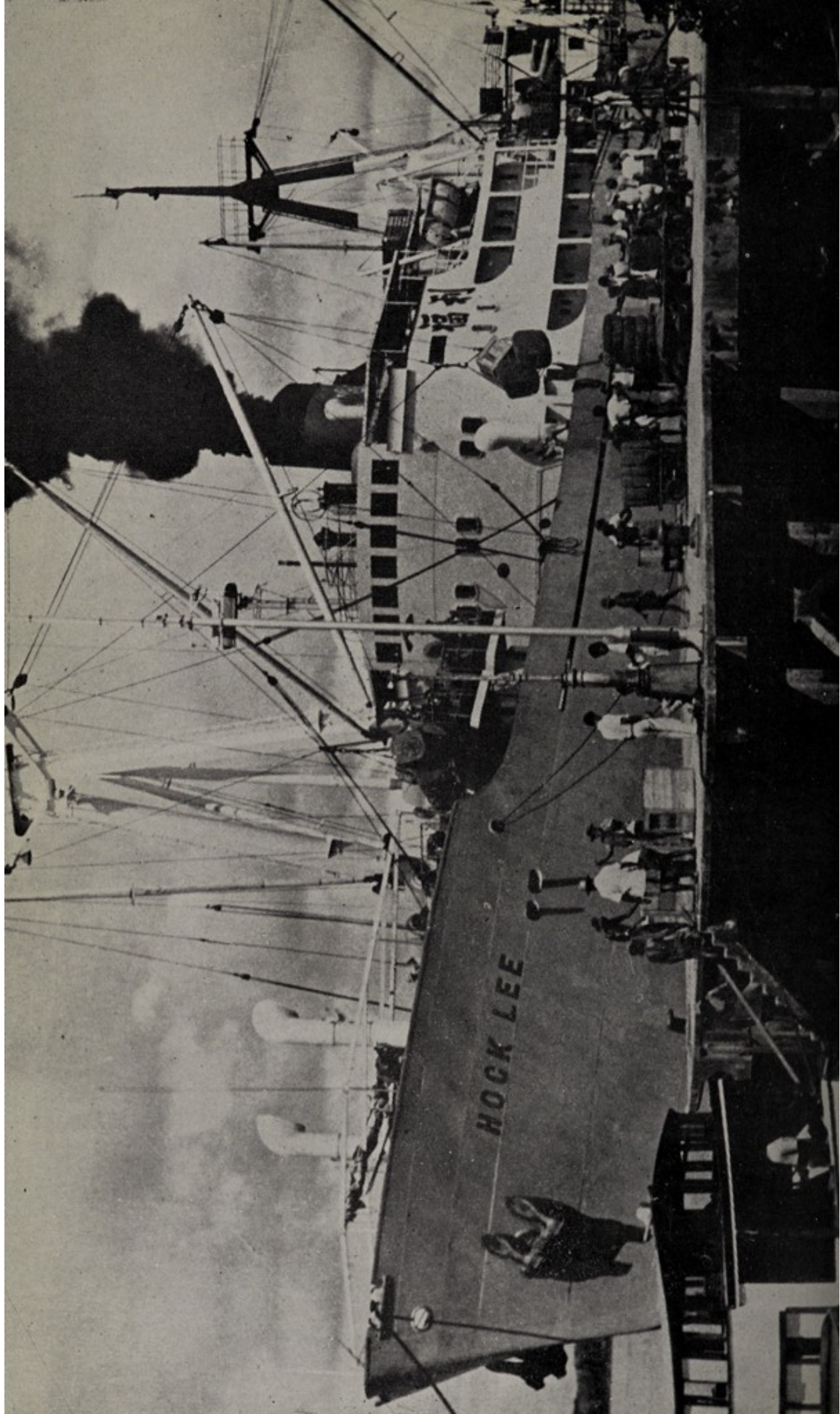
Viscount aircraft were introduced on the service between Singapore, Kuching, Brunei and Jesselton at the end of the year. (G.S.I.S.)

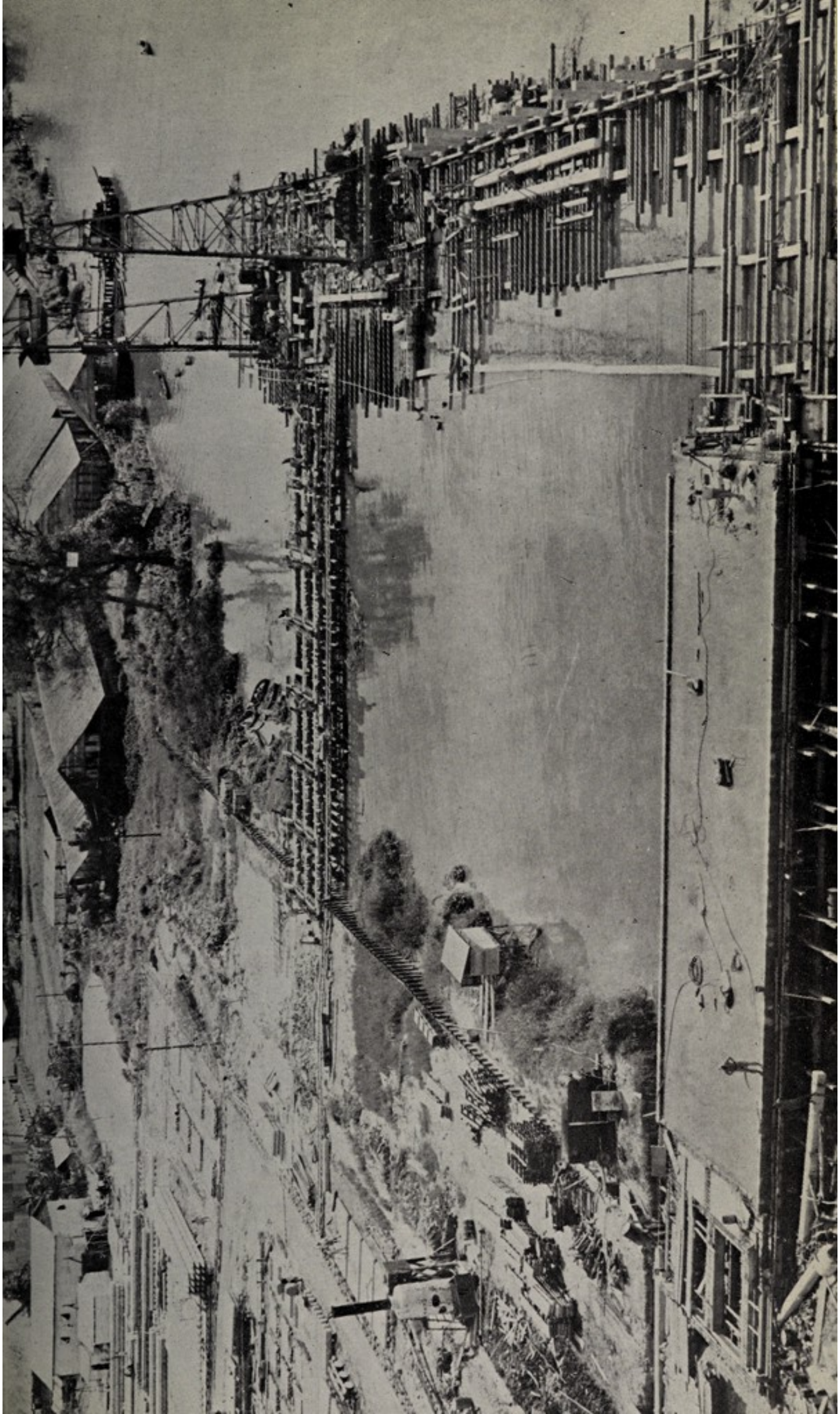
*Overleaf:*

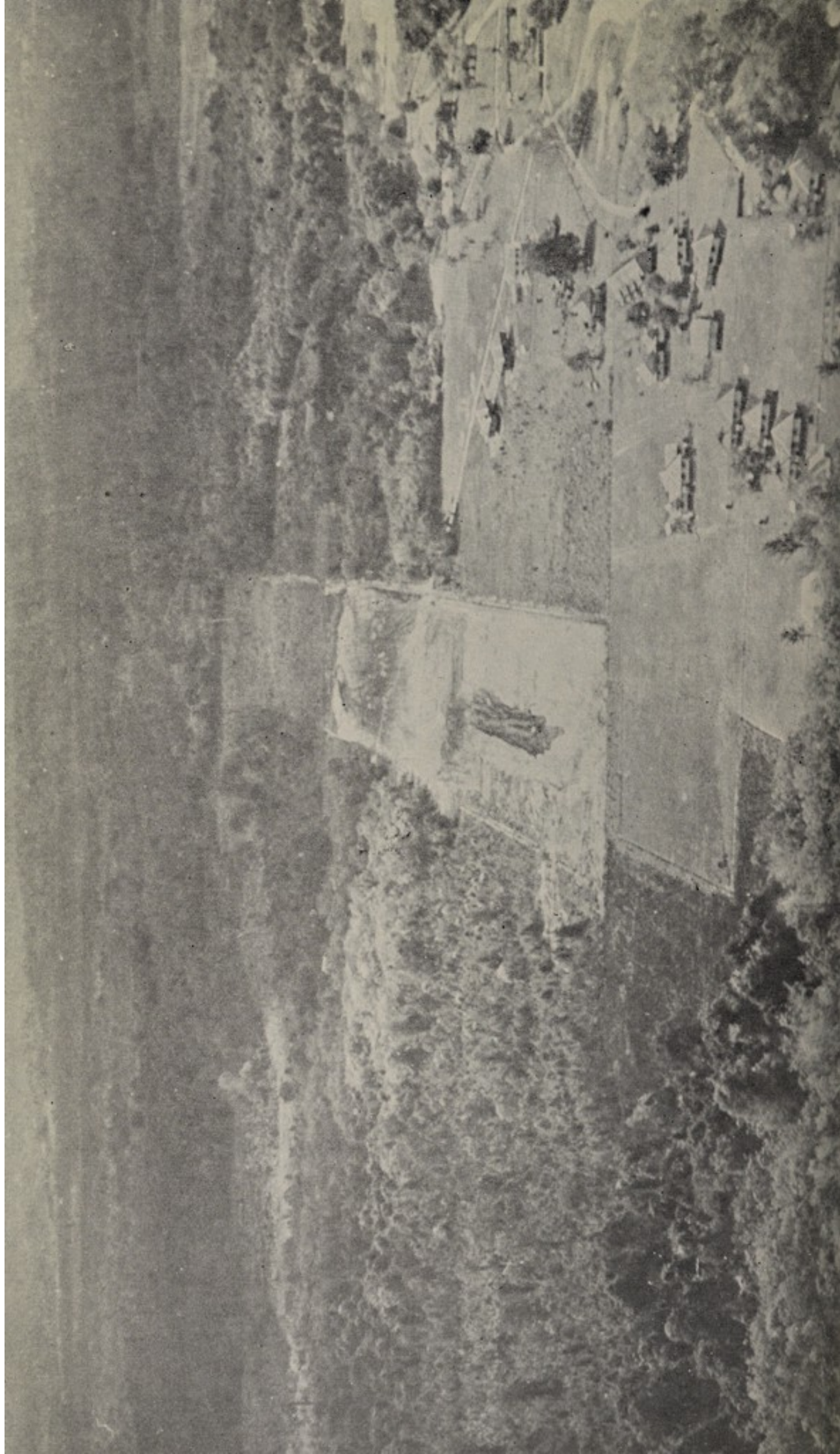
Shipping alongside the wharf in Sibu. (*Chong Chung Sing*)

The new Kuching wharf under construction. (*P.W.D.*)









	<i>Inwards</i>	<i>Outwards</i>
Mukah	19,710	19,656
Matu	1,930	1,962
Oya	2,229	2,256
Miri	17,838	17,722
Bintulu	35,432	34,618
Baram	3,902	4,138
Niah	5,213	4,887
Sibuti	2,007	2,972
Tatau	8,060	8,060
Limbang	3,166	2,685
Lawas	1,869	1,888
Sundar	2,597	1,290
	<hr/>	<hr/>
TOTAL	479,113	534,507
	<hr/>	<hr/>

## ROADS

During 1959 some progress was made on the construction of trunk and secondary roads. The formation of the Serian/Simanggang road advanced a further twenty miles and now extends over thirty-six miles from Serian and almost five miles from Simanggang. This road will link the capitals of the First and Second Divisions—Kuching and Simanggang. Work continued on the secondary roads between Sarikei and Binatang in the Third Division and Lawas and Trusan in the Fifth Division.

The trunk and secondary roads mentioned above constitute the first instalment of a comprehensive territorial road network, for which a preliminary plan has been prepared. Although work on the projects which have started will continue, it is unlikely that it will be possible, in the immediate future, to concentrate on implementing the plan further, because it has been decided that the primary need is for feeder roads to open up undeveloped areas. The construction of feeder roads will, therefore, take priority over the extension of the territorial road network for the next few years. A programme has been prepared for the investigation, survey and design of a number of these roads, and a start has been made on the construction of one road and the survey of two others.

The new airfield at Marudi in the Baram under construction.  
(John Seal)

In Kuching, a new road is being built to provide access to the new port area. The road formation is sufficiently wide to provide dual carriageways, but in the first instance only one carriageway, twenty-four feet wide, will be constructed. The road will not be completed when the new port area is put into use, but sufficient progress has been made to provide access to the wharf when it is required.

The mileage of public roads in Sarawak maintained by Local Authorities or the Public Works Department is:—

	WIDTH		
	<i>12 ft. wide and over</i>	<i>8ft.-12 ft. wide</i>	<i>Path under 8 ft. wide</i>
Bitumen and Concrete	126	5	6
Gravel or Stone	57	75	37
Earth	99	144	56
	<hr/> 282	<hr/> 224	<hr/> 99
	TOTAL <u>605 miles</u>		

In addition to the above, the Government contributes to the upkeep of approximately twelve miles of road in the Miri area which are owned and maintained by the Sarawak Shell Oilfields Limited.

#### LAND TRANSPORT

At the end of the year 5,408 motor vehicles were licensed in Sarawak. The number of motor vehicles licensed in the First Division rose from 3,093 in 1958 to 3,471 in 1959. This increase aggravated the problem of parking space in the business area of Kuching where some of the streets are very narrow. When the new port is opened further down the river, the congestion in Main Bazaar and Gambier Road will diminish.

11,258 driving licences and 3,763 provisional driving licences were issued in Sarawak in 1959. In the First Division during the year 1959, 2,318 provisional driving licences were issued with 1,748 driving tests as compared with 3,575 provisional driving licences issued with 3,060 driving tests during 1958. 72 per cent of applicants passed the driving test, 15 per cent failed and 13 per cent were not ready or refrained from taking the test as compared with 51 per cent passes, 21 per cent failures and 28

per cent refraining from taking the test during 1958. A total of 7,073 full annual driving licences were issued during 1959, as compared with 6,515 full annual driving licences issued during 1958. The decrease in the number of provisional driving licences was mainly due to the limitation placed on the renewal of these licences. The Road Traffic Ordinance has been amended to restrict the validity of provisional driving licences, including renewals, to one year. The decrease in the number of driving tests made it possible for a candidate to receive a test within 7-10 days of application.

Various recommendations of the Organisation and Methods Adviser were implemented during the year and much saving in paper work and the time of the public has resulted. The staggering of the periods for motor vehicle licensing introduced during the year will enable staff to be reduced.

The issuing of motor vehicle licences and driving licences has been transferred in the First Division to the Kuching Municipal Council. In 1960 it is intended to do the same in the other four divisions. The issuing of vehicle licences has been centralised at each Divisional Headquarters.

A number of recommendations made by the Commission of Inquiry appointed in 1958 to inquire into and make recommendations for the operation of passenger transport services in the First Division were brought into effect during 1959. A number of others will be implemented when a full time Controller of Land Transport arrives early in 1960.

In 1959 the Motor Transport Licensing Authority held five meetings and the First, Third and Fourth Divisional Licensing Authorities held nine, three and two meetings respectively.

The excessive numbers of taxicabs in Kuching were responsible for serious inroads in the revenues of the two franchised bus companies. Amendments to the law and revised conditions on licences should reduce illegal taxicab operations, although inadequate bus services and a consequent reliance by the travelling public on taxicabs to fill the gaps do not help to regularise the position.



## TELECOMMUNICATIONS

## PUBLIC TELEPHONE SERVICE

The public telephone system continued to provide a high grade service.

Distribution systems associated with the major Automatic Exchanges at Kuching, Sibü and Miri were further developed to meet subscriber demands.

Exchange facilities at Sibü were exhausted towards the end of the year and preparations were finalised for extension of the system early in 1960.

Development of outstation exchanges and associated underground cable systems continued.

A new 50-line Central Battery Exchange was installed at Bintulu and at Binatang a new exchange building to house the 100-line Unit Automatic Exchange equipment, which was put into service during December, was erected. This is the first exchange of its type to be installed in Sarawak.

At the end of the year four automatic and forty-two manual exchanges with 2,981 telephones connected were operative in the territory, of these telephones 2,003 were private and 978 Government.

Installation of terminal equipment to provide an international telephone service had reached an advanced stage in December.

## TELEPHONE STATISTICS

(Values are in decimals of a million dollars)

Year	TELEPHONES			TRUNKS		Total Service Value
	Number	Cash Revenue	Service Value	Cash Revenue	Service Value	
1952	720	·022	·045	—	—	·045
1953	720	·024	·056	—	—	·056
1954	720	·027	·057	—	—	·057
1955	1,257	·072	·115	—	—	·115
1956	1,931	·110	·186	·041	·094	·280
1957	2,135	·271	·459	·120	·244	·703
1958	2,682	·375	·590	·170	·283	·873
1959	2,981	·400	·643	·250	·346	·989

NOTE: (a) Cash Revenue is collected from private subscribers for telephone rental and trunk call charges.

(b) Service value includes value of telephone and trunk calls provided for Government Departments.

### *VHF Radio Network*

At the end of 1959 there were fifty-one outstations with VHF radio telephones linking them to Zone Centres at Kuching, Simanggang, Sibul and Miri. Certain established radio circuits were duplicated to alleviate traffic congestion and work continued throughout the year on development of sub-zone centres at Saratok, Sarikei, Mukah and Limbang.

### *V.H.F. Radio Multi-channel Trunk System*

In 1959 new multi-channel radio stations were built and commissioned at Kuching, Sibul and Miri and work was commenced on a new Repeater Station at Bintulu. 300-foot towers were erected at Sibul and Bintulu and 250-foot towers at Kuching and Miri.

At Kuching, Sibul and Miri 12-channel equipment to replace the 8-channel equipment used in the Pilot Scheme was installed.

The radio circuit between Kuching and Sibul is now of the required standard and teleprinters are in use on this circuit.

The new Repeater Station at Bintulu will be put into service early in 1960 and overall improvement on the main Kuching/Sibul/Miri trunk is expected.

The system when completed is planned to provide speech circuits between Divisional Headquarters for public use as well as for other services including telegraphs and broadcasting.

### PUBLIC TELEGRAPH SERVICE

External telegraph services are operated by direct wireless telegraphy to Singapore, Jesselton and Brunei and from Miri to Labuan and Seria. The service to Singapore is by teleprinters. Inland telegraph services are available between fifty-six places by wireless telegraphy and/or radio telephony and the following circuits are operated by teleprinters over the VHF radio telephone network :—

Kuching/Sibul, Sibul/Sarikei, Sibul/Mukah and  
Miri/Limbang.

A new transmitting station and receiving station associated with the international external telephone and telegraph service were built in 1959 and are expected to be commissioned early in 1960.

A ship-shore radio telephone/telegraph service for Kuching was planned and equipment ordered.

#### TELEGRAPH STATISTICS

(Values are in decimals of a million dollars)

Year	FOREIGN WORDS		INTERNAL WORDS		Cash Revenue \$	Service Value \$
	Sent	Received	Govt. Sent	Private Sent		
1952	.82	.94	1.77	1.46	.23	.41
1953	.93	1.06	2.03	2.05	.25	.44
1954	.88	.89	1.81	1.99	.25	.42
1955	.96	.95	2.11	1.38	.28	.47
1956	.86	.95	2.42	1.42	.26	.46
1957	.93	.86	2.19	1.16	.21	.37
1958	.84	.46	1.68	1.09	.20	.41
1959	.96	1.02	1.54	1.92	.24	.34

NOTE: (a) Cash Revenue is in respect of private telegrams handed in for transmission at telegraph offices.

(b) Service value is the revenue which would have been collected if telegrams on Government service had been paid for.

#### Aeradio

Operating and maintenance staff of Messrs. International Aeradio Limited at Kuching and Sibu Airports were almost entirely replaced by Posts and Telegraphs Department's staff. The final take over is planned for 1st March, 1960.

Installation of aeradio equipment at Marudi and Belaga was completed during 1959.

The Department now operates aeradio at Simanggang, Mukah, Bintulu, Lutong, Marudi and Lawas Airfields.

#### Police and Marine Radio Networks

The Police and Marine radio networks continued to be operated by the respective Departments and maintained by the Posts and Telegraphs Department.

## POSTAL SERVICES

A direct air mail service was introduced between Kuching and Hong Kong.

New postage rates were introduced during the second half of the year to conform with resolutions of the Universal Postal Union.

There was a marked increase in the volume of mails received and despatched.

## MAIL STATISTICS

## PARCELS

Year	Value of COD parcels received from		Number of ordinary parcels		No. of Air Parcels	
	U.K.	Malaya	despatched	received	despatched	received
	\$	\$				
1952	54,800	527,500	14,280	32,350		
1953	45,900	575,400	11,470	23,600		
1954	36,500	579,200	13,130	28,320		
1955	33,900	451,000	14,380	36,140		
1956	29,290	390,640	17,770	40,700		
1957	27,010	492,190	20,198	74,055		
1958	26,225	451,515	21,723	45,856		
1959	34,033	500,512	21,443	48,776	119	1,988

NOTE: There is no COD outgoing service from Sarawak.

## POSTAGE STAMPS

(Values in decimals of a million dollars)

Year	Cash Revenue	Service Value
1952	.242	.364
1953	.358	.538
1954	.369	.553
1955	.436	.684
1956	.463	.694
1957	.664	.996
1958	.652	.978
1959	.742	1.113

NOTE: Statistics show that in all despatches the ratio of unstamped Government mail to stamped mail is approximately one to two. Cash revenue is the value of stamps sold. Service value is cash revenue plus 50 per cent.

## XIV

---

### INFORMATION, PRESS AND BROADCASTING

THE most important development in the year was the opening of the new Information Office in Mosque Road, Kuching.

With this new building the staff of the Information Department is now provided with much improved accommodation and working conditions.

It is now equipped to give the press and public an improved service. It is hoped that the press will continue to make full use of the facilities that are provided by Government and that the friendly co-operation which has been built up over the years between the Information Officer, Director of Broadcasting and the Editors of the Press will be still further strengthened.

The early part of the year saw the Information Office staff heavily engaged in making arrangements for the local and overseas press coverage of the visit of His Royal Highness the Duke of Edinburgh to Sarawak.

It was a period when the Press Section of the Department was kept busy supplying publicity to the local and overseas newspapers. More than twenty overseas correspondents and photographers visited Sarawak at that time and Mr. Philip Jones, Information Officer, was appointed by His Royal Highness as Press Liaison Officer for the Royal Visit to Sarawak, Brunei and North Borneo.

The Editor and Director of the Chinese Daily News, Kuching, Mr. Teo Boon Kwei, toured the United Kingdom for about one month in a party of journalists from South East Asia organised by the Colonial Office in London at the expense of Her Majesty's Government. The general purpose of this visit was to create further opportunities for strengthening the bonds of friendship between the United Kingdom and the territories overseas and to spread a fuller understanding overseas of both the achievements and the problems of the United Kingdom.

During the year the press in Sarawak maintained a fair balance and provided the public with objective criticism and reading matter. There were eighteen press conferences arranged by the Information Office during the year.

During the year the staff photographer of the Information Service went on a two months' training course in cinematography in Malaya with the Cathay Film Services and the Malayan Film Unit.

The Deputy Information Officer also went on a two months' visit to England to observe the work of the Colonial Office Information Department and the Central Office of Information.

The second four days' visit by a party of eight senior officials from the Brunei Shell Petroleum Company Limited and Sarawak Shell Oilfields Limited to Sarawak took place last June/July.

A reciprocal visit to Seria by a party of seven Sarawak Government Officers also took place at the same time.

The Information Officer, Mr. Philip Jones, proceeded on leave towards the end of the year prior to retirement after seven years service in Sarawak.

#### BROADCASTING

Radio Sarawak has broadcast daily twelve hours of programme time on two simultaneous transmissions, each radiating on the short wave band for reception throughout Sarawak, and on the medium wave band for reception by listeners near Kuching.

Programmes maintained a high standard of variety and interest and the well-tried policy of encouraging full freedom of expression in spoken word programmes has continued. The year 1959 has been one of consolidation in the various branches of the work of broadcasting and on the threshold of 1960 the service is ready for the next step forward. Two members of the programme staff returned from a period of training with the British Broadcasting Corporation in London and the News Editor spent six months in New Zealand under a Colombo Plan scholarship. On the Engineering side an Assistant Engineer was granted a five month attachment to the Australian Broadcasting Service,

also under the Colombo Plan. Twenty out of thirty-three junior technicians employed by Radio Sarawak are engaged in correspondence courses which will enable them to qualify for the full Technological Certificate in Radio Communication issued by the City and Guilds Institute of London. A member of the Engineering Service has obtained his diploma in Communication Engineering from the Royal Melbourne Technical College in Australia and has been granted a year's extension of his course to take the examination for the B.Sc. Another junior Engineer is studying in New Zealand for his Bachelor of Engineering Degree.

The Schools Broadcasting Service is now firmly established as an important and valuable service and by the end of the year 145 schools were regularly using the Service. The Asia Foundation has made a gift of 266 receivers for use in schools and when these are installed over 400 schools will be using the Service. All the programmes in the Schools Broadcasting Service are locally produced by the Schools Broadcasting Officer who is on secondment to the Sarawak Government from New Zealand under the Colombo Plan.

## XV

---

### LOCAL FORCES

THE Sarawak Rangers (Malayan Unit) has continued to be engaged in operations in Malaya. The number of Rangers serving in Malaya at the beginning of the year was 250. This number has been gradually reduced by discharges or other casualties leaving an effective strength of ninety-six men. The engagement of the present Sarawak Rangers will terminate on 31st March, 1960 and the Unit will be replaced by a new one known as the Sarawak Rangers (Far East Land Forces) Unit on 1st April, 1960. This unit will be part of the British Army and liable to world-wide service.

Captain Douglas Bruce-Merrie, M.C. will take over the command from Lt.-Col. C. J. Baird on the formation of the new unit. Now serving with the Rangers as an N.C.O. is a young educated Iban who is being trained as an officer.

One hundred and sixty-nine General Service Medals have been distributed to ex-Rangers, many of whom are now serving in the Field Force Reserve. The discipline of the men in Malaya was of the highest order and their morale good. The Reserve will continue to provide an excellent field for future recruitment for the Field Force Reserve.

There was only one fatal casualty, Pte. Kumpang anak Tinggi, who was accidentally shot during operations with the First Battalion, the New Zealand Regiment, in November, 1959.

At a memorable parade in Kuching in August a party of Rangers headed by their Commandant, Lt. Col. C. J. Baird, O.B.E., ceremonially returned the Regimental Flag to the Governor of Sarawak to mark the end of the Malayan Unit. The flag was presented by the Governor at the Queen's Birthday Parade in June, 1955. It is now lodged in the Sarawak Museum where it will serve as part of a permanent exhibit designed to commemorate the distinguished part played by the unit in their seven years of service in Malaya.



Faint, illegible text, possibly bleed-through from the reverse side of the page. The text is arranged in several paragraphs and appears to be a formal document or report.

## PART III

PART III

# I

---

## GEOGRAPHY AND CLIMATE

SARAWAK lies between latitudes  $0^{\circ} 50'$  and  $5^{\circ}$  North and longitudes  $109^{\circ} 36'$  and  $115^{\circ} 40'$  East, occupying most of the north-western coastal area of the island of Borneo. With an area of about 47,500 square miles the territory covers a little less than one-sixth of the island, which is the third largest in the world and the largest of the 3,000 or more islands comprising the East Indies Archipelago.

The boundary between Sarawak and Indonesian Borneo follows the watershed between the rivers flowing generally north-westerly into the South China Sea and those flowing into the Celebes and the Java Seas. Although much of this watershed is not particularly high the country is generally rugged and topographically complex, and the boundary is unsurveyed. Because of the almost continuous presence of heavy cloud, part of this boundary and the adjoining Sarawak territory have not yet been covered by satisfactory air photography and only preliminary reconnaissance mapping is available. In the north, Sarawak adjoins North Borneo and in the north-west the State of Brunei forms a double enclave. The boundaries between Sarawak and these two countries run through much easier country and sections have been surveyed as the need has arisen.

Mount Murud, of about 8,000 feet, is Sarawak's highest mountain, dominating an area of practically unexplored ravines, plateaux and involved mountain ranges rising to over 5,000 feet. Knowledge of this area has been gained by visual reconnaissance from Royal Air Force aircraft and by various expeditions, notably those of the Sarawak Museum, Geological Survey Department and the Oxford University Expedition to the Usun Apau Plateau region in 1956.

The remainder of the country comprises an alluvial coastal plain and a belt of undulating country separating the coastal plain from the sharply rising mountainous interior. The coastal

plain varies in width from less than a mile at Miri to over a hundred miles, and contains large areas of peat swamps of various depths. The beaches are generally of mud and mangrove or *nipah* palm. The belt of undulating country is broken by a few mountain groups, generally not more than 2,500 feet in height. Shallow coastal waters and the existence of bars at river mouths limit the development of deep sea ports.

The main rivers rise in the interior ranges and flow fast through deep gorges and over numerous rapids until they reach the undulating country and the coastal plains, where they meander towards the sea. In spite of the high rainfall and the steepness of the interior mountains no spectacular waterfalls have yet been discovered, the rivers descending to the undulating country in a series of rapids rather than by waterfalls. The largest river, the Rejang, has a length of 350 miles and is navigable for small coastal steamers as far as Kapit, 150 miles upriver.

The greater part of Sarawak is still covered by primary rain forest, and large areas are practically uninhabited except for scattered bands of nomadic Penans. Much of the remainder of the land is used for agriculture, but the method of bush fallow farming followed by most of the native peoples means that the area of the country actually under cultivation each year is much less than the 11,500 square miles used for agriculture. One distinctive feature of the country is the large areas of swamp forest. These forests produce the bulk of the timber exported, notably *ramin*, one of the main exports and used extensively in Great Britain and Australia for making furniture. There are a few small areas of natural grassland near the coast on which cattle are raised, but grazing land, either natural or developed, is very limited. A shortage of cattle for draught purposes and for meat is most notable in the central and southern parts of the country.

#### *Principal Towns*

Kuching, the capital, is situated on the Sarawak River eighteen miles from the sea and can be reached by ships up to 2,500 tons. Besides being the seat of government for Sarawak, Kuching is the administrative headquarters for the First Division. The town is growing rapidly and the population is estimated at about 56,000 of whom the trading community is mainly Chinese,

with large Malay and other smaller communities occupying suburban areas. The main part of the town, with its wharves and warehouses, Government offices, museum and other public buildings, schools and places of worship of the various communities, and the main residential areas, is on the south side of the Sarawak River. Access to the north side is mainly by small passenger ferry but vehicles may reach the northern residential areas across the river by a suspension bridge and a minor road. On the north bank of the river directly opposite the centre of the town are situated the Governor's residence, the Astana, formerly the palace of the Rajahs of Sarawak, and Fort Margherita, another link with old Sarawak. Behind these buildings are residential areas and on the river banks upstream and down are extensive Malay *kampongs*. The business part of the town and the inner suburbs are administered by a fully-elected Municipal Council and control of the outer suburbs and residential areas is in the hands of the Rural District Council.

Sibu is the second largest town in the territory and is expanding very rapidly. It is situated about eighty miles from the sea at the head of the Rejang delta and can be reached by ships of up to 2,500 tons. The population is estimated at about 20,000 and the town is the administrative headquarters of the Third Division. It is low-lying and subject to flooding when the spring tides coincide with the arrival of floodwaters from the Rejang catchment areas. The inhabitants of the town are mainly Chinese, with Malay, Iban and Melanau settlements adjoining the business areas. Sibu, with Sarikei and Binatang lower down the river, handles a large proportion of the import and export trade of the country.

Miri is the administrative headquarters of the Fourth Division and owes its existence to the opening of the Sarawak oilfields in 1910. Although oil is still produced, the neighbouring oilfields of Brunei have become of far greater importance. All the oil won in British Borneo is exported through Lutong which is in Sarawak, seven miles north of Miri. The Miri river has a shallow bar which prevents all but small coastal vessels from entering, and the shallow coastal waters force larger ships to anchor about three miles out to sea. General cargo is handled by lighter and oil from the Lutong refinery and storage tanks is loaded through underwater pipelines.

Simanggang and Limbang are the administrative headquarters of the Second and Fifth Divisions respectively. Both have bazaars and wharves for coastal and river launches. Navigation on the Lupar River, on which Simanggang lies, is hampered by a tidal bore.

Binatang and Sarikei are the main towns of the Rejang River delta and are important ports for overseas shipments of pepper, timber and other products of the Rejang River plains. The Tanjong Mani deep water anchorage further down the river can accommodate vessels of up to 10,000 tons.

Of the other towns Bintulu is the largest and development of this coastal town should follow the opening up of the hinterland for rubber growing.

#### CLIMATE

The characteristic features of the climate of Sarawak are heavy rainfall, a uniform temperature and high humidity.

The mean annual rainfall at Kuching is 158 inches. This compares with London's mean annual of twenty-four inches, New York's forty-two inches, and Singapore's ninety-five. It is not unusual for rainfall to exceed eight inches in a day at one place (especially during the north-east monsoon) whilst at another place sixty miles away there is no recorded rain. A large area of the country receives between 120 to 160 inches of rain. The highest recorded fall is at Long Akah up the Baram River, with a mean annual rainfall of 236 inches.

The surface mean temperature varies between 72°F and 88°F with the highest recorded maximum 97°F and the lowest minimum 68°F. The relative humidity is generally high throughout the year.

From the beginning of October until nearly the end of February, the north-east monsoon brings heavy rainfall, particularly in the coastal belt. The monsoon moves at a fairly uniform speed across the China Seas, but once south of latitude 5°N, its average speed decreases, and at times its boundary may become stationary or even make a temporary retreat. The rain accompanying the boundary may then persist for several days and add substantially to the total rainfall. An

exposed coastal belt like Sarawak is therefore heavily influenced by this boundary layer on its southmost trends, giving a rainfall of twenty inches and more during—usually—November, December and January, whilst areas in Borneo south of Sarawak (except the north-west coast of Indonesian Borneo) are sheltered from this.

Four seasons can be distinguished: the north-east monsoon—as has been said—from October to January or February; the mild south-east monsoon from April to July or August, and two shorter seasons of about eight weeks each, separating the end of one from the beginning of the other.

During the south-east monsoon, Kuching's mean monthly rainfall is nine inches, mostly in the afternoon between three and six o'clock. At Miri during the same period the heaviest rain is from thunderstorms of sharp intensity during the early hours after midnight. During these months particularly, the form and movement of storms makes it doubtful that a single observation station in a given area, say Miri Town, is at all representative of rainfall in the immediate surroundings. There are insufficient observation stations in concentrated areas to make isohyetal patterns associated with individual storms. Yet it is from these thunderstorms that the heavy rainfall comes.

In spite of the heavy rains, there are long periods of bright sunshine. From March to October there are usually between 180 and 220 hours of bright sunshine each month. From November to February, there are between 100 and 180 hours of bright sunshine monthly.

There is no weather forecasting office. There are three meteorological observation stations and forty-three rainfall recording stations.

The Appendix at page 231 gives climatological summaries for Kuching, Miri and Bintulu.



## II

### GEOLOGY

SARAWAK is composed mainly of recently formed rocks. The oldest formations are only about 300 million years old, and so barely one-sixth of the world's recorded geological history is represented. The most ancient rocks in Borneo are in the west where 'Sundaland', a partly submerged extension of continental Asia, builds part of the island. Sarawak includes some of this area, and most of the main rock formations which build Borneo are represented, so Sarawak geological history is a miniature history of the whole island. Some Palaeozoic rocks occur, but Mesozoic and Tertiary deposits predominate; the most extensive and complete formation is the Tertiary, one of the fullest successions of these deposits in the world. A description of the main rock groups appeared in the 1955 Report in this series. The approximate areas of the geological formations that make up Sarawak's 47,000 square miles are given below:

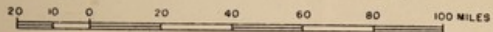
<i>Formation</i>	<i>Area (square miles)</i>
QUATERNARY	7,100
TERTIARY	{ Neogene 13,000 { Palaeogene 18,600
CRETACOUS	5,000
CRETACEOUS and JURASSIC	860
TRIASSIC	455
PERMIAN	9
PRE-PERMIAN (?)	285
IGNEOUS	1,700

### GEOLOGICAL MAPPING

A compilation map and a report incorporating the results of all geological work done in Sarawak were prepared in 1959 and will be published in 1960. This work was done in co-operation with the geologists of Sarawak Shell Oilfields Limited. Geological information was plotted on maps on a scale of 1:250,000 (about 1 inch to 4 miles) and reassessed. The data for Sarawak were

# Sketch Map showing SARAWAK GEOLOGY

SCALE 1:3,000,000 OR ABOUT 48 MILES TO ONE INCH

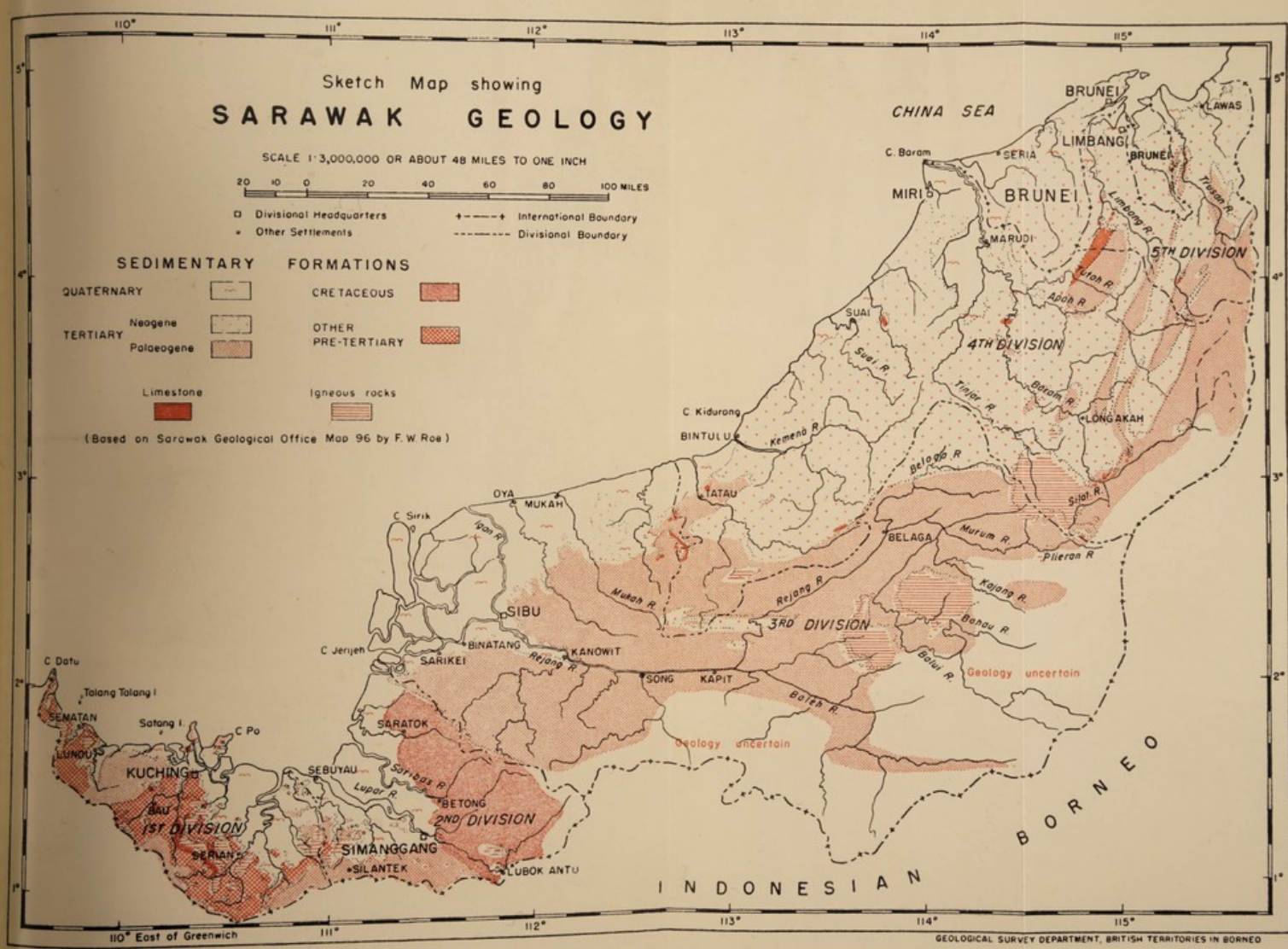


- Divisional Headquarters
- Other Settlements
- +---+ International Boundary
- - - - - Divisional Boundary

## SEDIMENTARY FORMATIONS

QUATERNARY		CRETACEOUS	
TERTIARY	Neogene	OTHER PRE-TERTIARY	
	Palaeogene		
	Limestone	Igneous rocks	

(Based on Sarawak Geological Office Map 96 by F.W. Roe)

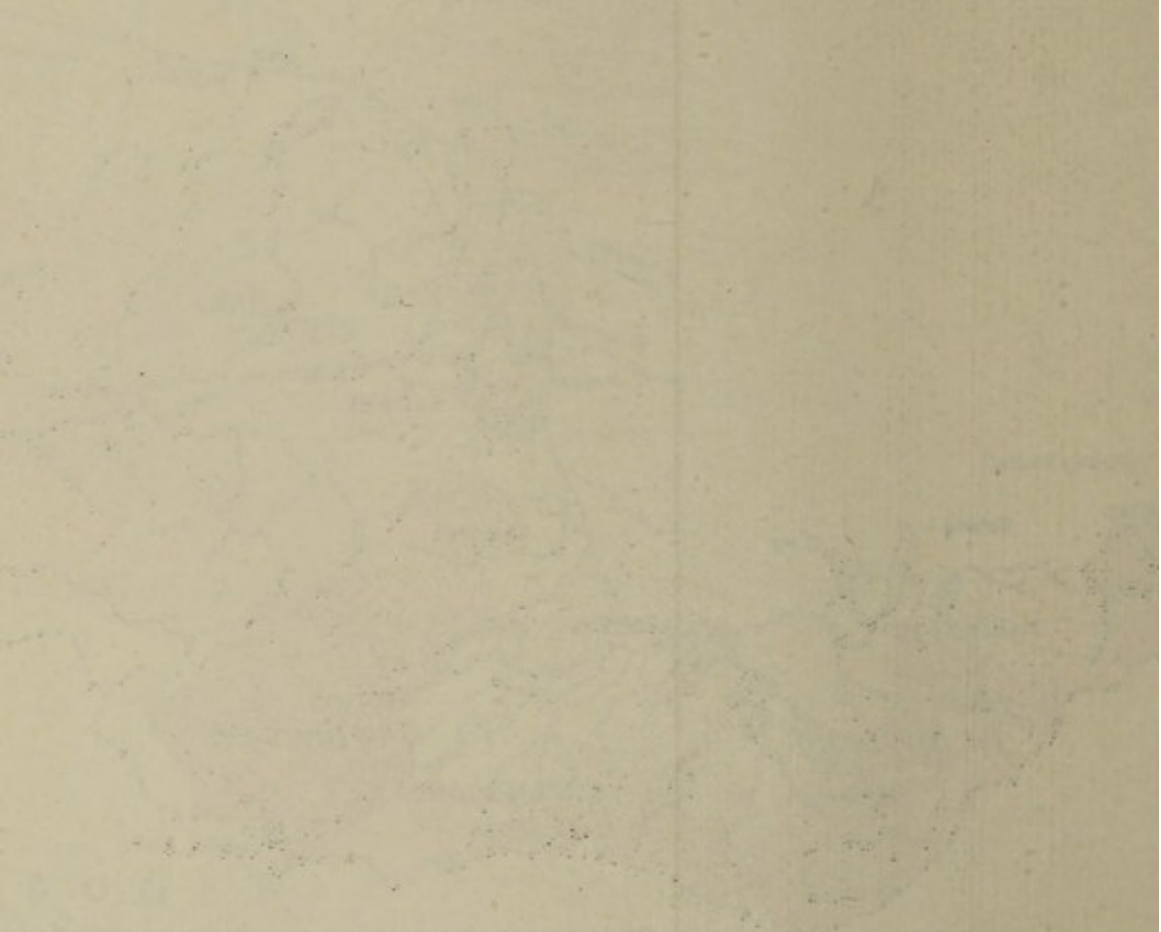


Geological Map showing

# SARAWAK GEOLOGICAL

Geological Survey of Sarawak

Scale 1:50,000  
 1880  
 1885  
 1890  
 1895  
 1900  
 1905  
 1910  
 1915  
 1920  
 1925  
 1930  
 1935  
 1940  
 1945  
 1950  
 1955  
 1960  
 1965  
 1970  
 1975  
 1980  
 1985  
 1990  
 1995  
 2000



related to information from Brunei and North Borneo, so that a regional picture of the geology could be assembled. The compilation presents geological information acquired by the Shell Companies over several decades at a cost of millions of dollars; this information, together with Geological Survey findings, has been co-ordinated in the report and will make the data readily available to all interested in the region.

Reconnaissance geological mapping has now been completed for 34,200 of Sarawak's 47,000 square miles. Memoirs describing the geology of four areas, with accompanying coloured geological maps, have been published and are listed in the bibliography. The geological mapping of the lower Rajang area, comprising over 10,000 square miles of country, was completed during 1959, and the memoir and map will be published in 1960. Progress continued on regional surveys of north-east Sarawak, which is being mapped at the same time as the State of Brunei, and of the Baram Valley, which includes the remote Kelabit Plateau area. The map and memoir describing north-east Sarawak and Brunei will probably be published during 1960, but the Baram Valley survey will take about two years to complete. Detailed geological mapping on a scale of 1:50,000 of parts of Sarawak which the initial surveys have shown to be of particular economic or scientific interest has already started. This type of mapping will increase in the future, as the first geological survey of the country on smaller scales nears completion.

#### RESEARCH

Geological research work has been going on steadily during recent years and increased during 1959, when a variety of investigations were in progress. The survey depends to a large extent on outside organizations for specialist assistance, such as universities, the Mineral Resources Division and Photogeological Section of the Directorate of Overseas Geological Surveys, the British Museum, and the Royal Dutch Shell Group. Such co-operation has greatly added to knowledge of the geology of the area. Investigations in progress include palaeontological research, chemical analysis of rocks, testing of constructional materials, and examination of the gold extraction process used at Sarawak gold mines. For specialist palaeontological research, the survey depends mainly on the co-operation of the palaeontological

laboratories of the Royal Dutch Shell Group in Brunei and on the British Museum, London. In 1959 the Shell Group continued basic palaeontological research on material collected by their geologists and the Geological Survey. The British Museum made special investigations of foraminiferal limestone from the Baram Valley. Research done on a number of economic problems is described in the section on economic geology below.

Earlier, the ages of several igneous rocks from west Sarawak were determined by the United States Geological Survey using lead isotopes in zircon. During the year, the possibilities of applying another method, using biotite in the igneous rocks of Sarawak, was examined and samples of this mineral will be sent abroad for age determinations in 1960. This work is part of a regional study of British Borneo igneous rocks to be published as a Geological Survey bulletin in a few years' time. Radiocarbon age determinations have been made during 1959 on peat samples from drillings near Marudi in north-east Sarawak: these have shown that the peat accumulated in the swamp deposits at a rate of about 1 foot every hundred years.

#### ECONOMIC GEOLOGY

Economic developments resulting from Geological Survey work continued to increase. The bauxite industry, started last year, has settled down and production is rising; exports this year are double those of 1958 and more than 202,000 tons of bauxite, worth about \$3,850,000, has been shipped, yielding more than \$300,000 in revenue. Prospecting in the Sematan area shows extensions to the deposits, but the extent of these is not known; however, enough bauxite has been found to ensure mining for some years to come. Other deposits occur in west Sarawak, and mining enquiries from new companies have been received. Bauxite already makes a useful contribution to Sarawak economy, and there is reason to hope this will increase in the future.

Several new discoveries of economic importance were made during the year, and research progressed on economic projects started in earlier years. The rock which on prolonged weathering gives rise to the bauxite at Sematan was discovered during the year in the mining excavation and studied in order to aid prospecting for new deposits. The relationship between the

bauxite and the alluvial swamp deposits which have now been proved to overlie it in places has been investigated. Further detailed mapping of the Sematan area is planned for 1960.

Increased attention is being paid to the possibilities of mining coal, and several new discoveries of coal were made in northern Sarawak. Geological Survey publications describing occurrences of coking coal near Bintulu and at Silantek have been studied by Japanese mining companies, one of which spent several months prospecting in the country. Small occurrences of dolomitic limestone were found during the year near Marudi and in the Melinau area of northern Sarawak: these are the only known occurrences of dolomitic limestone, which has important agricultural uses, in British Borneo. There are now prospects that further search might find larger and more accessible deposits of economic importance. A survey of limestone and other cement-making materials has been made in the Kuching area: recent chemical analyses show that, except for fuel, ample reserves of the main materials exist close to Kuching.

Geologists continued to co-operate with Public Works engineers on civil engineering projects, such as the search for stone, underground water supplies, and the examination of bridge foundations and dam sites. New occurrences of sand and gravel have been found in the lower Rajang area during regional geological mapping and these will be useful for roadmaking in the future.

#### GEOLOGICAL SURVEY DEPARTMENT

The Geological Survey office in Kuching is the headquarters of the combined department established in 1949 for British Borneo, and geological work is directed from there over the 80,000 square miles of the three territories. It is also the base from which the geology of Sarawak is mapped, expeditions going into the hinterland for trips ranging from a few weeks to several months. Advisory work for the Government and the public is also done. The headquarters include a laboratory and a museum displaying exhibits of the country's geology and mineral resources. Attached to the museum is a geological reference library and a collection of past geological and mineral exploration records, providing valuable information for miners and engineers.

## BIBLIOGRAPHY

*Annual Reports of the Geological Survey Department (1949-1959)*  
(Kuching: Government Printing Office)

*Geological Memoirs*: (the four following memoirs, relating to Sarawak, form part of a large series of memoirs, reprints, and maps produced by the Geological Survey Office):

Memoir 1. *The Geology and Mineral Resources of the Strap and Sadong Valleys, West Sarawak, including the Klingkang Range Coal*, by N. S. Haile. (Kuching: Government Printing Office, 1954)

Memoir 3. *The Geology and Mineral Resources of the Kuching-Lundu Area, West Sarawak, including the Bau Mining District*, by G. E. Wilford. (Kuching: Government Printing Office, 1955)

Memoir 7. *The Geology and Mineral Resources of the Lupar and Saribas Valleys, West Sarawak*, by N. S. Haile. (Kuching: Government Printing Office, 1957)

Memoir 8. *The Geology and Mineral Resources of the Upper Rejang and Adjacent Areas*, by H. J. C. Kirk. (Kuching: Government Printing Office, 1958)

### III

---

## HISTORY

### I — PREHISTORY

#### *Stone Ages*

THE most important work undertaken in this field during 1959 continued to be the excavation of the Niah Caves in the Fourth Division. As a result of three earlier "seasons" digging there (1954, 1957 and 1958), which developed slowly from initial reconnaissance of the cave as a promising archaeological site in 1947, Niah has now become world-renowned. It is, moreover, the only large scale stone-age research at present being undertaken in the field in South-east Asia—largely because of culturally changed or politically disturbed conditions in other territories previously active in the study of prehistory.

The 1959 dig, from June to October, 1959, was again undertaken on a large scale, thanks to a generous grant from the Calouste Gulbenkian Foundation of Lisbon, continuing support from the Shell group of Companies and the Sarawak Government, and new help from the Chicago Natural History Museum, the Fulbright Foundation, the Asia Foundation, the London *Observer* and Mr. Hugh Gibb. Among welcome visitors to Niah to see the work in progress were the High Commissioner for South-east Asia (Sir Robert Scott, K.C.M.G.) H.E. the Governor Sarawak (Sir Anthony Abell, K.C.M.G.) Mr. A. R. Snelus, C.M.G. and Mr. R. E. Hales, C.B.E.

It will take some years more to complete the initial phase of the Niah work. But already it is fair to say that results have altered our whole understanding of Bornean prehistory, and in some respects thrown new light over the whole area.

By the new method of measuring declining radioactivity in Carbon, it has been possible to get some quite accurate dates from Niah. The deepest — and therefore oldest — so far in the deposit gives a date of about 38,000 B.C. The highest — and therefore the youngest — material in the main site, which is in the west



mouth of the Great Cave, gives a date of just about 500 B.C., which appears to represent the beginning of a metal (?bronze) age at Niah.

These Carbon-14 ("C14") terminal dates—and series of intermediate ones—from Niah have been determined by Professor H. de Vries at the University of Groningen in Holland; his laboratories are considered one of the three most accurate in this newly developed type of work. The margin of error in the top sample is  $\pm 65$  years, and in the bottom one the formal result reads:

GR 1339:39,600  $\pm$  1,000 years (1958).

During the 1959 season, attention was concentrated on further exploration of the upper levels; above 100 inches and mostly above seventy-two inches. Deeper tests have proved that human and related remains actually continue much deeper; and these deeper levels will be a main concern in 1959-60.

At the present stage it is only safe to generalise for the upper levels and in a preliminary way. Nevertheless, even this initial picture, subject as it is to extensive modification as a result of further study, provides much the fullest picture yet obtained from any one site, in orderly sequence, in South-east Asia.

PRELIMINARY NIAH PHASEOLOGY (as dug so far)

<i>Phase</i>	<i>Main Characteristics</i>	<i>Approx. Niah Start Date (Estimated)</i>	<i>Methods of Dating</i>
1 Middle Palaeolithic	"Mid Sohan" Flake	40-50,000 BC	Flake below C-14 (GR 1339)
2 Upper Palaeolithic (i)	Chopping tools and large Flake tools	30,000 BC	Strata with C-14
3 Upper Palaeolithic (ii)	Small Flakes	25-30,000 BC	C-14
4 "Palaeo-Mesolithic"	Advanced Flake	10,000 BC	C-14 and Stratification
5 "Mesolithic"	Edge-ground tools; Melanoid dentitions	c. 7,000 BC	Stratification
6 Neolithic (i)	Polished tools; Mongoloid dentitions,	c. 4,000 BC	Stratification, comparisons and C-14
7 Neolithic (ii)	pottery		
8 Chalcolithic	Bronze traces; elaborate pottery	c. 250 BC	Known associations and C-14

Although there has been appreciable success in reconstructing an intelligible prehistory, backed by many thousands of valuable specimens (prehistoric pottery, stone and bone tools, archaic beads and more than one hundred human burials of the stone ages) it should be emphasised that results cannot be obtained quickly. Indeed, the story of archaeology in Sarawak—and it is the same for all Borneo—goes back eighty years.

As early as 1878, following the great arguments of evolution and Darwinism, the Royal Society in London and the British Association for the Advancement of Science, stimulated by reports from the co-founder of Darwinism, Alfred Russel Wallace (who spent two years collecting in Sarawak), sent an investigator to explore the Niah and Bau Caves. The investigator was A. H. Everett, a naturalist sponsored by learned societies and a professional collector for the London Zoo, British Museum and other bodies. The results of nine months' cave exploration, reported by Everett as covering thirty-two caves, were published by the Royal Society in 1880. The result was a total blank from the prehistorical point of view. The report advised that it was useless to continue such studies at Niah, Bau or elsewhere in Sarawak. The effect was somewhat discouraging for the curious-minded who came after Everett.

The story since then illustrates the difficulties inherent in carrying out proper and thorough studies of this kind, in a country like Sarawak, with its difficult communications and sometimes very uncomfortable jungle-conditions.

Since Everett, there has been much speculation and various unsuccessful searches. Not only did these fail to prove the presence of very early man; there was no evidence of an acceptable kind even of the Neolithic or later stone age people, let alone the pre-agricultural Mesolithic and the primitive Palaeolithic—all now so firmly documented at Niah.

In 1947, the Sarawak Museum began to make more organised and prolonged efforts to fill in some of the missing bits of knowledge. The first problem was to know where to begin. That is always much the most difficult thing in this sort of investigation in this sort of country. There are virtually no permanent open spaces in Borneo. Sooner or later, everything reverts to jungle, every building is overthrown and every grave disturbed by the

forces of nature. The obvious place therefore to begin an investigation of this sort is in a cave. The mouths of caves provide the only bits of dry ground in Borneo which never get over-grown by vegetation; and only occasionally are they disturbed by the innumerable burrowing animals and insects of the jungle.

Unfortunately, however, human beings like caves nowadays just as much as their ancestors are supposed to have done in the past. The caves of Borneo provide two tremendous attractions. On the vast ceilings of the caves there are millions of bats and tiny swiftlets. The latter, with their salivary glands, make cup-like nests; these, suitably cleaned, dried, and boiled are the basis of Chinese birds' nest soup—one of the most expensive of foods. On the floor of the caves these same swifts plus bats deposit an endless supply of guano; in some caves this may reach a depth more than 100 feet. This guano is the only locally available fertiliser in Borneo.

In consequence, most unfortunately for the archaeologist, the floors of practically every cave in the island have been not only disturbed, but to a large extent removed, by man.

In the early cave explorations, which were undertaken by the Museum in conjunction with the Raffles Museum of Singapore, more than thirty caves were examined and excavated in the Bau district. Although a mass of interesting information about early occupants of the caves was obtained, it was invariably rather chaotic because of disturbance. The answers were exciting but unsatisfactory, stimulating but incomplete.

It was not until Sarawak Oilfields Limited had started drilling in the Niah river area that occasion arose to visit there and make a thorough preliminary examination of the great cave a mile back from the Niah river in the limestone hills of Gunong Subis. Even a cursory inspection of the ground showed immediate evidence of human remains, and here there was something unique. Because the cave mouth is so huge, both by height and width, it is also much lighter than any of the other caves, even including the very big ones in Mount Mulu on the Tutoh, further north in Sarawak. So much light in the cave's mouth means that swifts and bats do not frequent that area—and only live further in where it is 'good and dark'. There is therefore no reason for anyone to start messing about on the ceiling or digging anything

up off the floor; there are no birds' nests and there is no guano in the mouth of the Niah cave.

So, with high hope, feeling at least they had found the right cave, the Director of the Raffles Museum (Michael Tweedie), photographer Hugh Gibb and a Sarawak Museum party began a more thorough, but still reconnaissance, excavation in the Niah cave mouth in October 1954.

Only two sections of the cave mouth were explored—one in towards the darkness, the other right out in the mouth and in the full light (but still well protected from rain and wind).

This difference between the outer and inner mouth was reflected in what was found. On the inner side, the whole cave floor appears to be nothing less than a stone-age cemetery. The skeletons were in some cases quite perfect, small people—smaller than the people who live round Niah today. On or beside the bodies were placed stone implements, including some beautifully made and polished stone axes and adzes. The head of the skeleton was usually crushed in, with a large, crude home-made earthenware pot placed as a sort of second head piece. The body had been laid out on coarse leaf matting, then wrapped round (in some cases but not all) with very fine netting—the texture and mesh of a child's shrimping net.

This matting and netting, although extremely primitive, is nevertheless the first stuff of its kind ever found associated with stone age burials or occupations in this part of the world. It suggests that this group of stone age people at Niah were in some ways remarkably advanced as compared with those discovered under similar conditions elsewhere. But it is necessary to recognise here that the conditions at Niah are extraordinarily favourable to preservation over many centuries; and we are now talking about matting which must have been made probably many hundreds, perhaps many thousands, of years ago.

The cave mouth is so perfectly dry, and the limestone walls act as a kind of air conditioning in the cave—making it, incidentally, one of the most delightful places to work in and the only one in Borneo where we have ever been able to keep cool while digging. So it is possible that these finer things of primitive life have been found, so far, at Niah because the conditions for preservation are so excellent there.

But in support of the belief that the people themselves were quite advanced, although still living in the stone age, there is the evidence of the already mentioned earthen-ware pottery. Some of this is of better make and finer finish than similar pots which are still being made today by the Dayaks in the Balleh, the Kelabits in the uplands and other Borneo people who live too far away from Chinese shops to be able to carry metal cooking-pots and water-containers. An astonishing feature of some of the Niah pottery—astonishing anyway to a student of these things—is the presence of three colours, applied as a sort of glaze. These colours appear to have been obtained by the use of different clays, charcoal and iron ore haematite. But this suggests an advanced kind of craftsmanship, which in fact has subsequently vanished; and which has so far not been found anywhere else, amongst stone-age people, in South-east Asia.

The haematite iron ore is another feature of the Niah stone age. Curiously enough, in widely separate parts of the world, (including Europe and America), primitive man discovered and used haematite to cover the corpses of the dead. In Niah this vivid scarlet and magenta haematite powder has been scattered in clouds over the cemetery.

The 1954 work was resumed and extended in 1957; and then, as already indicated, greatly extended in 1958-9. The Niah excavations are not yet deep enough to find, under the extraordinary dry conditions there, any fossilised remains. Indeed, it is possible that in these particular cave conditions nothing did fossilise. The wide range of animals brought in to be eaten during forty millenia of stone-age include, however, a number of large animals no longer found within hundreds of miles of Niah; and one that appears to be extinct. A curious feature is the amount of remains of orang-utan, rhinoceros and very large pig, suggesting that these had been used for ritual, sacrificial or funerary purposes—or all three together—in ancient times.

Two important finds in this section during 1959 were:

- (i) *Tapir*. In two excavation trenches Lord Medway found at Niah the remains of the Giant Tapir. There is no previous proof of its occurrence in Borneo and it has certainly not occurred in the island in historic times.

- (ii) *Neolithic dog*. Among remains both at Niah and in 1959 excavations at a small cave near Kuching (Gua Sirih) teeth and jaws of a tiny prehistoric dog have been identified in material sent to Dr. J. Clutton-Brock at the Institute of Archaeology, London. This stone-age canine does *not* resemble the modern *pye* dog of Borneo, but bears some likeness to other prehistoric dog remains found by archaeologists in *Japanese stone-age* sites.

More detailed study of the Niah stone tools, with the help of Dr. Oakley and Dr. T. T. Patterson, suggests some remarkable parallels between the palaeolithic (early stone-age) tools used in Sarawak and those of the so-called "Sohan" culture discovered by Dr. Patterson twenty years ago, thousands of miles away in north-west India. Papers discussing this and other significant Niah parallels were published during 1959 in *Nature*, the Archaeological Newsletter, the Royal Anthropological Institute's journal *Man*, and the London *Observer*, and aroused wide-spread discussion.

#### *Ceramic Age*

Late in the 1958 "season" at Niah, important new finds were made in other caves and sub-caves, of later phases of cave frequentation. The Calouste Gulbenkian Foundation generously provided funds for a very thorough study of this rich and hitherto unsuspected side to Niah during 1959.

The cave topography of Niah has made it a relatively simple matter to separate the excavation of these later caves. So far we have not found any cave where a rich later phase (from early bronze age on) occurs at the *same* spot as earlier stone age. For various reasons—which are one subject of research—stone age frequentation involved the choice of caves on different criteria from the postneolithic, early metal phases when use was entirely for ritual and funerary purpose.

Work in 1959 was mainly concentrated on *completing* the excavation of the set of cave grottos first explored in 1958 at Lobang Tulang, a subsidiary mouth of the Great Cave; and in making a *major study* of "The Painted Cave", wonderfully rich in metal age remains, as discovered late in 1958.

#### *Lobang Tulang* ("Caves of Bones")

For two weeks a special unit worked in the cave grottos, the most interesting of which has to be reached through a funnel

of darkness in the cliff-face about 300 feet up from the valley floor.

This work was completed in July, with the following results in terms of specimens obtained:

	<i>Items</i>
Ceramics	8,038
Glass (beads and bangles)	1,470
Metal (gold, bronze and iron objects)	127
Carved bone	59
Carved shell	20
Worked wood	15
Worked stone	6

This material represents principally a cremation centre for Chinese Birds-nests collectors and traders and related persons in the late bronze and early iron age (up to c. 1,000 A.D.). This is a positive treasure house of T'ang and earlier Chinese export works and of extremely interesting (sometimes unique) associated material with a local Bornean origin within the same period and general mood.

The whole of this material is now being brought back to Kuching and analysed. The earthenware pottery has already been classified in detail by Dr. William Solheim, Fulbright Fellow attached to the Museum. An analysis (and part-reconstruction) of the porcelain and stonewares by Mrs. Harrison is nearly complete and most of the beads have now been classified. A complete preliminary report of the material studied to date will be published in the next issue of the *Sarawak Museum Journal*, but wider conclusions and correlations must wait on the comparison of the material from the Painted Cave and from other sites to be studied in 1960-61.

#### *The 'Painted Cave'*

This is the most sensational of the later caves so far discovered at Niah and has attracted worldwide attention because of the "ships-of-the-dead" which litter the cave floor and the

"Boat-coffins" with human remains and a section of the paintings found in the "Painted Cave" at Niah. (*Sarawak Museum*)

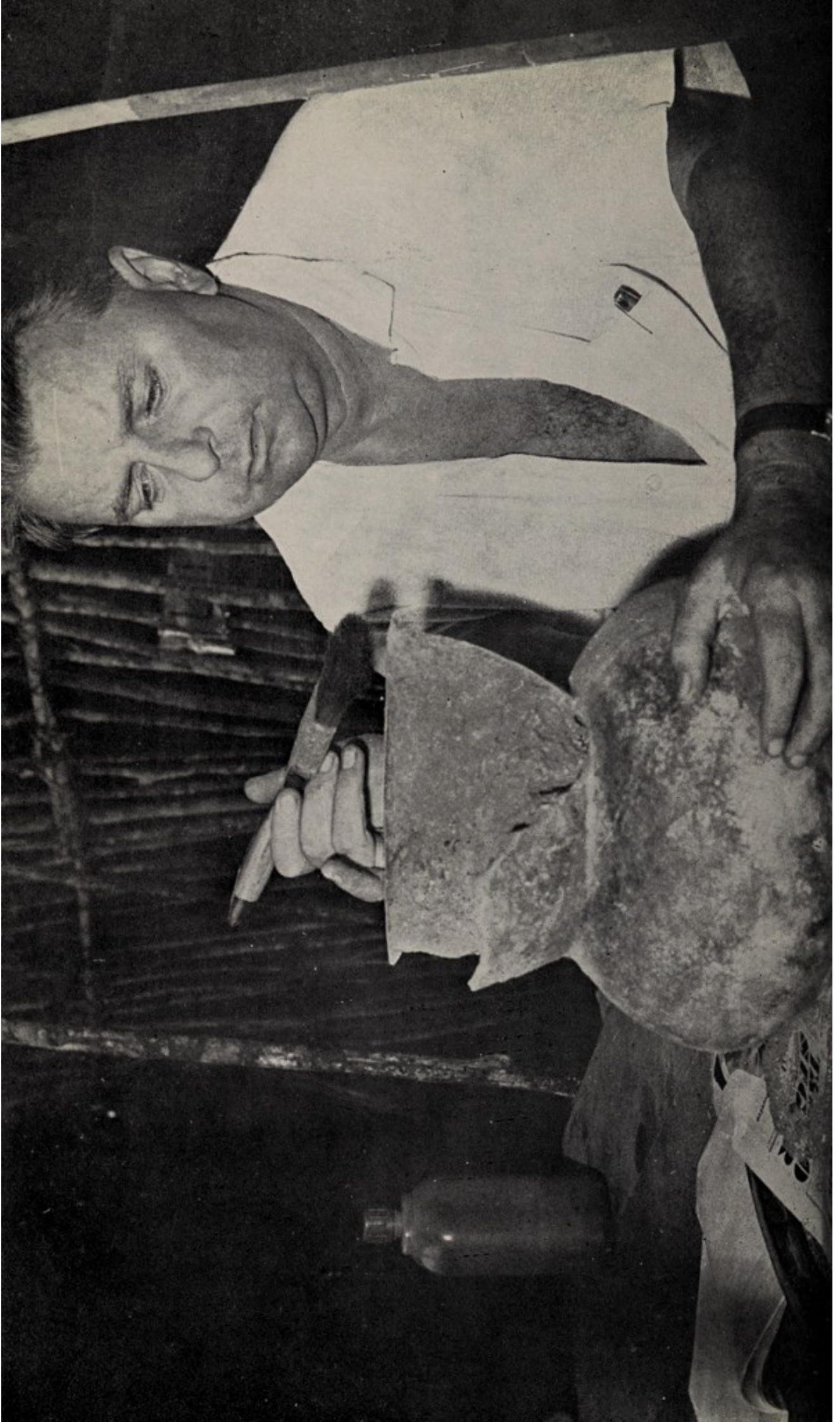
#### *Overleaf:*

The Curator, Mr. Tom Harrison, working on an ancient burial urn found in the Niah Caves. (*Sarawak Museum*)

A long-nosed river tortoise sunning itself at Niah. (*Sarawak Museum*)











haematite red paintings which run for more than 200 feet along the rear wall of the cave.

But until this year these superficial evidences, exciting though they were, were unsupported by any archaeological documentation. Exceptionally heavy rains in May and through June and even into July, forced a modification of program, because the Painted Cave lies in a separate limestone "island" subject to heavy flooding all round. Instead therefore of completing this preliminary excavation in June, it was not done until the beginning of August, 1959. Despite some difficulty, the whole cave floor at present believed to be relevant in the main part of this cave was then excavated down to twelve inches. Over most of an area of c. 25,000 square feet this meant reaching bedrock.

This cave floor proved to be littered with an astonishingly diverse mixture of human bone and human artifacts. The material appears to be associated with funerary rituals connected both with the ship coffins and with the wall paintings. Preliminary analysis suggests that intense festivities occurred on these occasions, including religious cockfighting, human sacrifices and extensive destructions of property. This property includes a wide range of early Chinese ceramics and of beads which can be linked with the Lobang Tulang material in some respects, and that from the Sarawak River delta (see below).

As part of the 1959 project, the rock paintings over a wall surface of c. 2,000 square feet were exactly copied life size on to panels, which have now been successfully brought back to the Sarawak Museum for fuller study and also reproduction elsewhere if desired. A special exhibit showing some of these in a natural cave setting was begun in the Museum in 1959 and will be open to the public during 1960.

#### *Niah Caves and the Sarawak River Delta.*

It is already clear, however, that much of these later, metal age remains at Niah are closely linked to those already fairly extensively studied 300 miles to the south-west, in the Sarawak River delta and elsewhere. It seems probable that a main Chinese and other Asian trading station was established at the south-west corner of Sarawak and Borneo well beyond a thousand years ago.

A young male Maias (or Orang-utan). (*Sarawak Museum*)

One of the principal purposes of an inter-monsoonal junk fleet visiting the west coast was barter trade both from the scattered area at Bau in the headwaters of the Sarawak River and further north-east at Niah where, however, the coast, river and weather patterns are less suitable for long-term anchorage or large-scale permanent settlement by traders depending on long external routes under sail.

Fortunately, we already have extensive material from the Sarawak River delta sites. As well as helping to interpret the later phases at Niah, this material is of much interest on its own account. During 1959 further work was done in this area, notably an extension of the Ja'ong excavation (see 4 below) with the help of a team of Land Dayak scholars from the Padawan Community Development (under Canon Howes).

The Sarawak Museum started digging in the delta in 1952. Unlike cave sites, these open and usually swampy prehistoric situations are extremely difficult to pinpoint; and impossible to work in during the bad weather which characterises the landas months from October to April. Each summer since 1952 progressive digs have been carried on in the delta country, slowly extending westward along the great sweep of bay between Tanjong Po and Tanjong Datu, the south-west extremity of the island of Borneo. Altogether nearly forty probably significant prehistoric sites have now been located in this south-west sector. Of these, six have so far been excavated to some appreciable extent. These are:

- 1 Tanjong Kubur—a small headland half a mile west of Santubong; a "proletarian" cemetery of the early T'ang Dynasty (618—?800 A.D.).
- 2 Tanjong Tegok—an "aristocratic" small cemetery on a small headland half a mile east of Santubong; contemporary with Tanjong Kubur.
- 3 Bongkissam—flat land beside the river behind Santubong village, evidently a trading centre mainly in the Sung period (about 1,000 A.D.).
- 4 Sungei Ja'ong—two miles upriver from Bongkissam—a very extensive centre in the T'ang and perhaps early Sung eras; now embedded in the swamp through a prehistoric change in the course of the Sarawak River.

- 5 Sungei Buah—another river diversion site across river from Sungei Ja'ong and subsequent to it; including an impressive early iron foundry, the subject of particular excavation attention in 1958.
- 6 Bukit Maras—on the hillside above Bongkissam. This appears to have been inhabited by "Indian" people rather than Chinese types and special finds here include a fine 7th century stone buddha, a beautiful stone tile with a charging elephant, a tiny elephant in glass; gold, and fine beads.

The results of all this work are being gradually reported in the *Sarawak Museum Journal* (twice a year), which has printed more than 2,000 pages of original archaeological, anthropological, historical and natural history studies since publication was resumed in 1949. What was happening quite close to Kuching, in 959, naturally exercises particular fascination.

We cannot yet tell for certain what it was that these traders of a thousand years ago sought. But early Chinese annals put a high value on rhinoceros horn, hornbill ivory, edible birds' nests, gums and spices, as well as gold and precious stones, all here available.

Gold has long been worked in the area extending from Kuching south-westward to Sambas and Montrado in West Borneo. Though the production of this area is insignificant in comparison with the present world output, it must, if Borneo gold was known in the days of the great Indian trading expeditions, have been of considerable importance in the ancient world. The fabulous Golden Chersonese may well have included western Borneo.

It is likely that for a time Sarawak fell under the sway of the great maritime empire of Srivijaya, the Indian Buddhist thasocracy centered on southern Sumatra, which reached its zenith towards the twelfth century. Srivijaya fell about a century later before the attacks of Siam and the Hindu-Javanese kingdom of Majapahit, and Borneo came within the sphere of influence of the latter. The Majapahit empire in its turn began to crumble early in the fifteenth century before the Muslim States established by the advance of Islam into the archipelago. On these aspects, research continues.

After the fall of Majapahit, Sarawak formed part of the dominions of the Malay Sultan of Brunei, and it is first known to us by name through the visits to Brunei of Pigafetta in 1521, of Jorge de Menezes in 1526, of Gonsalvo Pereira in 1530, and from an early map of the East Indies by Mercator. Sarawak was then the name of a place on the river of the same name. Kuching did not exist.

Too little is still known about this period of Sarawak's proto-history where pre-history and written history overlap. But an important and attractive addition to our knowledge here was made during 1958. Back in 1940, Chinese coolies doing some irrigation work near Sambas in Southern Borneo discovered a magnificent hoard of gold and silver buddhas. After a chequered career in Indonesia, Singapore and Holland, this "Sambas Treasure" was acquired for the British Museum with the assistance of the Sarawak Museum—whose help has been generously recognised by the presentation by the Trustees of the British Museum of two magnificent replicas for local display. In the stand of the largest of these buddhas a piece of leaf was found—during cleaning in the British Museum laboratories—containing an inscription in archaic Malay. This has not yet been interpreted and is being worked on by experts at present. It is the earliest such writing known from Borneo. The buddhas themselves relate to the one found at Santubong, in stone, already mentioned. They probably date from the 7th century onward, and are now a special exhibit in the British Museum Treasure Gallery in London.

## II — HISTORY

The history of Sarawak as an integral State begins with the first landing in August, 1839, of James Brooke. At that time Sarawak was the southern province of the Brunei Sultanate. The oppression of the Sultan's viceroy, Makota, had goaded into revolt the Malays and Land Dayaks resident in the area known as Sarawak Proper, and the Sultan had sent his uncle, the Rajah Muda Hassim, to pacify the country. The insurgents were led by Datu Patinggi Ali. James Brooke departed after a short stay and returned in 1840, to find the fighting still in progress. At the request of the Rajah Muda Hassim, he interceded in the dispute, brought about a settlement, and was rewarded for his services by being installed on the 24th September, 1841, as

Rajah of the territory from Cape Datu to the Samarahan River. This, however, is but a small part of the total area which was later contained within the State of Sarawak.

For the remaining twenty-three years of his life Rajah Brooke devoted himself to the suppression of piracy and head-hunting, often with the help of ships of the Royal Navy, which performed almost incredible feats of navigation and endurance. It is a story of high adventure, financial difficulty, and political persecution at home by the Radical party, followed by complete vindication and success. Sarawak was recognised as an independent State by the United States of America in 1850, and Great Britain granted recognition in effect by appointing a British Consul in 1864. In 1861 the territory of Sarawak was enlarged by the Sultan's cession of all the rivers and lands from the Sadong River to Kidurong Point.

Sir James Brooke, at his death in 1868, bequeathed to his nephew and successor, Charles Brooke, a country paternally governed, with a solid foundation of mutual trust and affection between ruler and ruled.

The first Rajah pioneered, subdued and pacified; Sir Charles Brooke, in a long reign of fifty years, built with such conspicuous success upon the foundations laid by his uncle that piracy disappeared, head-hunting was greatly reduced and the prosperity of the country increased by leaps and bounds.

Further large accretions of territory occurred in 1882, when the frontier was advanced beyond the Baram River; in 1885 when the valley of the Trusan River was ceded; and in 1890, when the Limbang River region was annexed at the request of the inhabitants. In 1905 the Lawas River area was purchased from the British North Borneo Company with the consent of the British Government. British protection was accorded to Sarawak in 1888.

Between 1870 and 1917 the revenue rose from \$122,842 to \$1,705,292 and the expenditure from \$126,161 to \$1,359,746. The public debt was wiped out and a considerable surplus was built up. In 1870 imports were valued at \$1,494,241 and exports at \$1,328,963. In 1917 imports totalled \$4,999,320 and exports \$6,283,071. Roads had been constructed, piped water supplies



laid down and a dry dock opened in Kuching. There were telephones, and the wireless telegraph was opened to international traffic.

The third Rajah, Sir Charles Vyner Brooke, succeeded his father in 1917, and progress continued in all spheres. Head-hunting, as a result of tireless efforts, was reduced to sporadic proportions, revenue increased, enhanced expenditure resulted in improved medical and educational services, and in 1941, the centenary year of Brooke rule, the State was in a sound economic position with a large sum of money in reserve. As a centenary gesture, the Rajah enacted a new constitution, which abrogated his absolute powers and set the feet of his people on the first stage of the road to democratic self-government.

Then came the Japanese invasion and occupation. Social services and communications were neglected; education ceased; health precautions were ignored; sickness and malnutrition spread throughout the State. The people had been reduced to poverty and misery when, after the unconditional surrender of Japan, the Australian forces entered Kuching on 11th September, 1945.

For seven months Sarawak was administered by a British Military Administration, as a result of whose efforts supplies of essential commodities were distributed, the constabulary re-formed and the medical and educational services reorganised.

The Rajah resumed the administration of the State on the 15th April, 1946. It had, however, for some time been evident to him that greater resources and more technical and scientific experience than he then commanded were needed to restore to Sarawak even a semblance of her former prosperity. He therefore decided that the time had come to hand the country over to the care of the British Crown, and a Bill to this effect was introduced into the Council Negri in May, 1946 and passed by a small majority. By an Order-in-Council the State became a British Colony on the 1st July, 1946.

## IV

---

### SCIENCE AND THE ARTS

**K**NOWLEDGE of Sarawak's human and natural sciences advanced considerably during the year, especially in the fields of archaeology (already mentioned), entomology and ornithology.

Special efforts were made during the year—and will be continued—to encourage and preserve native arts and crafts and to record folklore and customs before these disappear. It is something of a losing struggle, however.

Borneo has its own very vital arts and crafts. Inevitably these are threatened by the greatly accelerated and sometimes uncontrolled impact of Western civilisation. In particular, the influence of Government education and of Mission activities has very generally been to create with extreme rapidity a new set of values the significance of which is often imperfectly understood by the native peoples most affected. Ten years ago every young Kenyah, Kayan or Kelabit was proud of his leopard teeth ear-rings (if he was fortunate enough to possess them) and his tattoos. Today these fashions are in many areas being replaced by short hair, short trousers and skin clear of any design except vaccination.

The traditional systems of independent craftsmanship, of embroidered bark-jackets, fine beads, carved bone hairpins, ornate symbolic figures in wood, and decorated pipes, are threatened with early extinction. The old Ming jar and the Sung celadon plate, heirlooms of yesterday, are now shadowed by the refrigerator, the bicycle and the gramophone.

It is against this background that the thoughtful have to teach in the aesthetic field. There is nothing they can teach of carving, metal-working, design and weaving. The people do—or did—know it all uniquely. The young people no longer want it; better to buy cloth than make it, to use a \$2.00 parang knife

instead of a finely wrought one from the Batang Kayan. On the other hand, efforts to teach western art, painting in perspective, and such like, are not at this stage producing results. This is a fairly familiar dilemma where West teaches East so fast, and one that has seldom been solved at all effectively.

Further good work was done in the more limited field of "western" art, by the Kuching Art Club. The members are Chinese, Malay and European and they work in mixed styles not related to the Dayak aesthetic.

It has proved possible to relate the Art Club to the general interests of the Sarawak Museum in certain special ways. The Chairman of the Club, Mrs. Lucy Morison, kindly consented to become Honorary Curator of Art Materials for the Museum; and a leading young Chinese artist, Paul Kuek, started work on an ambitious part-time project in which members of the Club will help redecorate Museum display cases and the Old Building. Miss Margaret Wee spent much of her spare-time through the year on a magnificent mural of Dayak life running right across the upstairs galleries. And two Kenyahs from the Rajah Brooke Memorial settlement were working on a mural of the "Tree of Life", which is continuing to blossom into 1960.

#### *The Sarawak Museum and Sarawak Culture*

The Sarawak Museum continued energetically to collect both the material products of local artists and craftsmen of all races, and the verbal material of Sarawak legend and group history of pre-literacy. Particular attention was paid in 1959 to the Bisayas, a hitherto neglected but extremely interesting group centred in the Fifth Division and also numerous (under other names) in adjacent Brunei. Through the good offices of Dr. Roger Peranio, an American anthropologist working on the Limbang, a collection of Bisayan craftwork was made.

Attention was also paid to the recording of Kenyah folklore from the inland parts of the Fourth Division. Considerable progress was made in tracing out the migrations of the Kenyah and Kayan peoples in the last century, before the advent of the Brookes in Sarawak, when most of these people still lived in what is now Indonesian Borneo. A further fascinating study, carried on as opportunity permits, is the translation into English

of the several volumes of tradition, folklore, customs and vocabulary recorded in 1949, over several months, from the last of the once great and now extinct Seru peoples of the Kalaka District in the Second Division.

The Museum is slowly but steadily increasing as a focal centre for interest in and preservation of local craftsmanship, custom and belief—in which Sarawakians, in common with Asians widely, are taking a growing and proper pride as the second half of the twentieth century develops its threat of atomic nonentity. The Museum itself was established by the Second Rajah, Sir Charles Brooke, in 1886. It is the only Museum in Borneo. Standing amidst beautiful gardens in Kuching, it has the best collection of Borneo arts and crafts in the world, and is a great attraction to visitors as well as to local peoples of all ages and races. About a quarter of the visitors are Dayak, over a third Chinese, rather less Malays, the balance European and others.

On completion of a complete overhaul of the Old Museum Building in 1958, energetic measures were put in hand to rearrange and up-date displays. Under the supervision of Mrs. B. Scanlon a display of basket and mat making crafts was arranged. The whole of the outer end gallery was re-equipped and made into an exhibition of Ceramic Arts, which illustrates—with some 500 specimens—the imports of China and other mainland countries to Sarawak, in terms of the art of the potter, since c.500 A.D. There has been a very large increase in the use of the building by Chinese school classes following this, and a group of Chinese teachers voluntarily prepared a full set of labels for the exhibits in Chinese.

During the year the new downstairs air-conditioned gallery was brought into public use for the first time. Equipment is not yet complete, but meanwhile special exhibitions of topical interest are being staged there. Notable in 1959:

Borneo Orchid Painting

by Christopher Blake (U.K.)

Modern Chinese Paintings

by Cheong Soo Pieng (of Singapore)

Sarawak Photographs

by K. F. Wong F.R.P.S. and others.

Siamese and Chinese Art in Sarawak—in conjunction with a lecture by Dr. Michael Sullivan (Curator of the University Art Museum, Singapore).

The last of the above occasions was one of several during the year sponsored jointly by the British Council and the Museum in association with the Sarawak Library and other local bodies.

The New Museum Building further down the hill was completed structurally in 1956 and internally in 1957. This provides greatly improved facilities for research workers and students, who are making ever better use of the opportunities.

During the year, the Fulbright Foundation of the United States recognised the improved Museum facilities and sent Dr. William Solheim, a distinguished archaeologist and expert on pre-historic pottery, to spend nine months working with the Museum staff. He was the only Fulbright Fellow in South-east Asia during the year. Other specialists came from far afield, including Professor Tsing-Chao Maa, entomologist from Taiwan and Dr. Lindsay Gressitt of the Bernice P. Bishop Museum, Hawaii, engaged in the South Pacific Insect Survey; Lt.-Col. R. Traub of U.S. Army Medical Research; Dr. H. Wright, a research geologist of the Shell Company; and the usual succession of anthropologists, live-animal collectors, students of the Brooke family and free-lance travel writers feasting on our now considerably improved Reference Library of Borneo books and periodicals.

#### *The Archives*

Work has continued on a smaller scale to improve the archives. Other departments and out-stations have shown an improved awareness of the benefits to be obtained by the community as a whole in passing these to the Museum for proper care, incorporation and indexing in the State Archives which are housed in the New Building.

Private publishers and newspapers still seem to find some difficulty, however, in understanding that under the Printers and Publishers Ordinance three copies of all printed material must be submitted to the Curator as soon as possible after publication. A test prosecution was therefore brought under that Ordinance, with good effect.

These Archives are becoming useful to the community. Important archive material newly acquired during the year came

from the Treasury (old account books); the Resident of the Second Division (old court records); and Mr. George South in England (correspondence on the Museum and related matters in the hand of the Second Rajah).

#### *Other Scientific Studies*

The full-length survey of Malay communities in Sarawak has been carried further during 1959. The first volume (about 250,000 words) of a four volume report is with the printers. This is the last of a series of "socio-economic" studies initiated with the aid of Colonial Development and Welfare Funds.

Already published are the studies of Land Dayaks (Dr. W. R. Geddes), Sea Dayaks (Dr. Derek Freeman), Melanaus (Dr. H. S. Morris) and Sarawak Chinese (Dr. T'ien). The Kelabits of the far interior are the subject of a separate long-term study by the Government Ethnologist; particular sections of this are published from time to time in the *Sarawak Museum Journal* and in periodicals abroad.

A further visit was paid to the Kelabit country in November and December, and basic socio-economic data brought up-to-date. Field-work was also done on Tanjong Datu, where a full-length study of the great 1959 Illipe Nut Harvest—as collected and worked by Land and Sea Dayaks and Malays—was completed. Other sociological studies include an analysis of work cycles of guano collectors in the Niah Caves; the study of fishing routines in Malay coastal villages carried on by A. K. Marican Salleh (to be published in the *Museum Journal* shortly). The Assistant Curator spent some months among Tagal, Dusun and Punan peoples at and round Merapok, Lawas and Niah, mainly collecting folk-lore materials. For the first time in many years, no new outside anthropologist entered the country to commence field studies, though several visited the Museum to work on collections, literature and data held in Kuching.

There are now sixteen voluntary, part-time honorary Curators of the Museum, each with a special field. Notable contributions in advancing studies in these fields were made during the year by the Honorary Curators of Plants (Mr. John Seal), Birds (Mr. B. E. Smythies) (see Chapter V of Part III), Reptiles (Dr. N. S. Haile, who has added several new species to the Borneo list), photographs (Mr. K. F. Wong) and Ceramics (Mrs. B. Harrisson).

## V

---

### FLORA AND FAUNA

THIS chapter aims to give some general idea of the natural life of the country, as well as indicating special points of interest in 1959.

Apart from the coastal plains of swamp forest, Sarawak is dominated by mountains and hills, each altitude, with varied forms of plant and animal life, meeting to form a tangled mass over the whole interior. Between dusk and dawn, the jungle is alive with the noise of thousands of insects. There are more than six hundred kinds of birds, more than a hundred species of mammals. Everywhere there is vigorous life going on all the year round. There is no rest for fauna or flora; plants grow all the time, animals do not hibernate; activity has no end.

#### *Flora*

High temperatures with little variation coupled with an annual rainfall of between 100 and 180 inches, make for an ever-present greenness. The old leaves fall after the new ones have grown. This greenness is made up of an enormous number of different kinds of plants with violently different characteristics and habits of growth. Epiphytic life is apparent wherever there are trees. Almost every tree supports other forms of plants, mostly ferns and orchids using the tree as host, but not "living off" the tree like parasites.

There are several hundred species of orchids, mostly living on trees, and not being horticultural wonders or difficult to cultivate. Many have most beautiful flowers and can be seen in gardens throughout the country. Some orchids, such as *Phalaenopsis amabilis*, have leaves six inches or so long and an inflorescence of more than three feet with white and yellow flowers, and live on trees. Others have roots in the ground with the tip of the plant growing indefinitely, and aerial roots clinging to forest trees to support their climb to the roof of the forest,

where they flower. Such a plant is *Vanda Hookeriana*. Its natural habitat is the swamp forest, but it is seen in many gardens, growing up and above four-foot posts and flowering continuously.

In the dry season from April to September some jungle trees bear edible fruit. One looks like the English chestnut with a centre tasting not unlike an avocado pear; another is the luscious durian, weighing two or three pounds and much loved by many people.

Beneath the great forest trees there are thousands of other plants: beautifully coloured small foliage plants, terrestrial and epiphytic ferns of all shapes and sizes, mosses, gingers of all sorts, and many others. In the clearings and along river banks there are flowering shrubs, with pink and yellow their dominating colours.

It is often supposed that the jungle contains a great number of parasitic plants. This is not so. There are a few parasites, of which the most important are members of the mistletoe family. The unusual and huge *Rafflesia* is a parasite. It has no stem or leaves. Only the flower is visible, with strands of tissue growing inside the living substance of its host, usually woody climbers of the vine family. There are three known species of *Rafflesia* in Malaysia. The largest, *Rafflesia Arnoldii*, has five petal-like organs and in the centre a basin-shaped cavity large enough to bath a baby in.

Another unusual plant is the pitcher plant (*Nepenthes*). These are climbers, usually in open country. They turn the tables on insects, especially ants, by snaring, drowning, and digesting them. This is one of the few circumstances in which a plant eats an insect, and gets its own back. Many species of *nepenthes* exist among the mountainous and lowland groups. Some have small pitchers of one inch and some large, of sixteen inches. The pitcher consists of body, rim and lid. Within the body a liquid is produced that digests the insects. The inner surface of the pitcher is slippery, and once an insect is attracted by the beautiful colours or the sugary secretions round the inside of the rim, it has little chance of escape.

A feature of Sarawak is the specialised flora of the moss forests with their dwarf vegetation. These occur in various parts of the country in mountain ranges above 3,000 feet. Layer upon



layer of moss and dripping water abound, and the whole is in perpetual dampness.

The herbarium, jointly run by the Sarawak Museum and the Forestry Department, has been re-housed, re-arranged and largely added to. Plans are now in hand to establish a new herbarium building separately. This has become necessary owing to the rapid increase of the scale and value of the collections, and their direct relevance to developmental and other problems of Sarawak today—as well as their general scientific significance.

### *Fauna*

Perhaps the most dramatic place and easiest way to see into the teeming life of the island is to step out of the jungle and go into one of the great caves which honeycomb for miles wherever there is an outcrop of limestone; at mount Mulu on the Tutoh; around Long Akah on the Baram; inland from Bintulu; at Gunong Subis at Niah; and in many small hills behind Bau, above Kuching. Niah, already referred to, in Chapter III of Part II, as the classic Borneo stone-age site, is the largest, loveliest, and fullest of life. Its principal inhabitants are roughly 1,000,000 bats and 1,000,000 swiftlets. And when the bats go out and the swiftlets come home at dusk it is difficult even to control your mind to millions. It is hard to imagine there are so many of any one animal in the whole world, let alone in one cave. The bats are of several kinds, some the size of a crow, others of a sparrow. Into the night they go to forage the air of the jungle. The swiftlets (of the genus *Collocalia*) are probably of three kinds, have tiny bodies and scimitar wings. Their nests they make of saliva excreted from special glands. These are the birds' nests of soup fame, prime delicacy of the Chinese gourmet. They are exported in quantity, the best quality (pure saliva) fetching as much as £10 a pound.

These swiftlets, who take as their food tiny beetles in and over the jungle canopy, work for man in two ways. One end salivates the nests; the other gives droppings of beetle elytra, providing guano, a very useful local fertiliser; and they are but two of several thousand vertebrate (spined) living species in Sarawak—and as yet uncounted tens of thousands of insects, shells and so on.

Some of the more interesting forms include:

(i) *Mammals*

The most famous of Borneo animals is the "orang-utan" or *maias*, one of the very few close cousins of homo sapiens. It is found only in Borneo and a small part of Sumatra. Despite constant persecution and inadequate protection, there are still *maias* in Sarawak, Indonesian Borneo and North Borneo. This charming, amiable, chestnut-furred animal, desired by zoos all over the world, can still be seen, shambling from tree to tree, inland in the First and Second Divisions. Another of the five great apes also occurs in Borneo, the gibbon or *wak-wak*, probably the most graceful of all arboreal animals. A favourite pet, it is in captivity very susceptible to pneumonic diseases.

The Sarawak Government is concerned at the smuggling of orang-utans across the border, where protection is less adequate. A number of babies—only to be obtained by assassinating the mother—were taken over by confiscation or prosecution during the year. The Game Warden normally passes these to the Sarawak Museum for special care in upbringing. When they are old and strong enough, the youngsters are then sent to approved zoos, unless it should prove possible to let them return to the wild (which is seldom the case).

More orang-utans continued to be cared for by the Curator during the year. Whenever large and strong enough they were passed on to accredited zoos, thus:

"Bill", male

Received in June 1958, then 12 lbs. and c.12 months old, from Lundu area.

Sent to ANTWERP ZOO, by air, on 26/4/59 at the age of c.22 months, weight 29 lbs. He is doing well at Antwerp.

"Frank", male

Received in October 1958, then 13lbs. and c.12 months old, supposed to have come from Indonesia, Kampong Babang, Lundu area.

In care all through the year. Weighs 32 lbs. 1/1/60, and is c.26 months old, very healthy; lives with No. 3 below.

"Nigel", male

Received in November 1958, then 22 lbs. (the largest ever received and in good health on arrival through c/o Forest Department ? from Rejang area) c.20 months old.

In care all through the year. Weighs 1/1/60: 41 lbs. at c32 months. Very healthy, lives with No. 2 above.

4. "Ossy", male

Received in November 1959, then under 4 lbs. (no teeth yet ?3 months old. The youngest ever on arrival. From Balai Ringin area. At year's end, doing well.

5. —, female

Received December 1959, then 4 lbs. and c.5 months old (6 teeth) from Balai Ringin area, with broken arm and in poor health, having been kept on wrong diet.

Died after ten days' care—hopelessly under-nourished and ill when received.

Sarawak is rich in mammals. The rhinoceros is dangerously near extinction, largely owing to persistent (now illegal) hunting by the Dayaks, who sell them to the Chinese. Wild cattle are quite common in the northern part of the country; wild elephants are confined to North Borneo. Deer are very numerous; the *sambhur* deer or *rusa*, almost as big as a cow, is in some places a nuisance to rice farmers.

There is only one dangerous animal, the honey bear or *bruang*. The leopard can be large and magnificent, but the people of the island regard it as effeminate. The honey bear, if upset or with a family of young, will attack the unwary traveller. There are many stories of people clawed and even killed by angry honey bears. The baby bear is a great favourite as a pet, but as it nears maturity, it becomes dangerous.

#### *Aquatic Mammals*

Little has previously been known of the aquatic mammals living in the Sarawak coastal water of the South China Sea. In 1958 the studies of these groups continued.

The *dugong*, a shy and silent beast—superficially resembling but in no way related to a sea-lion—now appears to be confined to a small area on Tanjong Datu, where the population of Malay fishermen and Chinese hunters is very small. The whole local population appears to number no more than a dozen.

The picture for cetaceans is brighter—much brighter than has hitherto been suspected. One year's careful observation has given good records of at least fourteen different forms present in these waters, most of them previously unsuspected. These include

not only the well-known common dolphin, the ten-foot Bornean white dolphin, the small lead-grey Irawadi which comes well up the river, and the little finless black porpoises of the estuaries, which were fairly well-known before. New records include the Plumbeous Dolphin, a big one with a remarkably long beak; the very large Risso's; the Bottle Nosed (which turns out to be very common); and the small black one, living in the muddy waters of estuary mouths, which has not yet been positively identified and may be new to science. Dr. F. C. Fraser of the British Museum has also described a largish dolphin collected near Lutong which is entirely new and is to be called the Sarawak Dolphin (see *Sarawak Museum Journal*, December 1956).

(ii) *Birds*

The final proofs of B. E. Smythies' "The Birds of Borneo" were passed for press during the year, and publication — by Messrs. Oliver and Boyd of Edinburgh—is expected late in 1960. This should represent a landmark in knowledge and a ready reference book of great value. All the common and many of the rare birds are illustrated in colour by Commander A. Hughes, a foremost bird painter.

As this project nears completion, ornithological work has eased off. But special studies were made during the year of bird migration in the far interior and of the super-sonic echo-location devices by which the above-mentioned edible-nest swiftlets fly in the dark. A set of recordings made in the dark in the cave at Niah have added considerably to knowledge on this subject; a preliminary report will be published in *Nature* during 1960, including spectographs of the high frequency sound-tracks as recorded.

There is to be found in Borneo one of the richest resident bird faunae in the world. There are several sorts of hornbill, notorious for their domesticity: the male walls the female into the nest, feeds her there and only liberates her when the young are ready to fly. Among a number of fine pheasants, the Argus is as handsome as a peacock. Its dancing grounds are stamped out of the mud so that several males can compete to the delight, or at least to the concern, of the females.

Sarawak has parrots, broadbills, ten kinds of pigeon, egrets, nearly twenty kinds of woodpeckers, exquisite honeyeaters and

flower-peckers, the lovely-voiced yellow-crowned bulbul, and so many other birds that it is doubtful if one man could ever learn to recognise them all on sight.

The finest of our seabirds is the great man-o'-war or frigatebird. This does not nest on the coasts, but comes about the offshore islands in hordes during the monsoon, circling, spiralling and gliding for hours in effortless grace upon the wind.

(iii) *Turtles and other Reptiles*

Sarawak's reptilian speciality is the big Green or Edible Turtle. Although this occurs elsewhere, only here do so many come up to lay, on three small beaches on islands off the coast (The Turtle Islands). Live turtles are protected. Only the eggs are collected, and a proportion are left to hatch out. Advances continued in experimental methods of rearing the baby turtle until they grow tough enough to evade most of their fish enemies. The study of turtle migrations and laying by marking females with tags was also continued.

These tagging experiments, the first of their kind anywhere, produced in 1957 their first positive results. Some 4,000 turtles were tagged with durable monometal numbered tags from 1953 to 1955. There were no long-term repeats until 1956. Then on July 6, one marked on July 30, 1953, at last reappeared. By the end of July, fourteen repeats had been recorded: all turtles tagged in July and early August 1953. One lady, number B154, has now been checked in by the staff of turtle watchers on Talang Talang Besar as laying over 1,000 eggs on eleven registered visits, five in 1953 and six in 1956.

In 1957 a series of turtles tagged in 1953 and 1954 returned to the islands once more. This same trend continued in 1958. During 1959 for the first time Sarawak tagged turtles were reported from outside the country—one in January from the east coast of North Borneo, and others from the Natuna Islands and the south-west coast of Kalimantan. A single tag from Talang Talang Kechil was also found washed-up on a beach on Vancouver Island, Canada, and this mysterious event is still under investigation at the year's end. No individual turtles have come up in more than one year since they were originally tagged. The evidence is now therefore strong that turtles spend periods

of several years away from the islands without laying here in the interval. It is also extremely unlikely that they lay anywhere else than on the islands from which they are hatched. No turtle bearing a Sarawak Museum tag has been recovered laying in adjacent territories, such as the Natuna Islands and the Sulu Archipelago. Where these huge beasts spend their long holidays from reproduction remains a complete mystery. Nor is anything yet known of what happens to the baby turtles between the time they dash frantically down the beach into the sea and swim with frenzied energy away and out of sight, to vanish from human knowledge anywhere, until they return, eight or more years later, to lay their eggs as adults and start the whole business all over again.

The results of this continuing study are of great importance to the turtle industry, as providing the first scientific information ever on laying habits and migrations. The experiments have aroused world-wide interest.

Sarawak has the most dangerous and deadly snake in the world, the hamadryad or king cobra. It can grow over fifteen feet in length, is quite common, and one of the very few reptiles in the world which will sometimes attack human beings.

Lizards, of which there are nearly a hundred kinds, are more conspicuous, because of the attraction human dwellings have for some varieties such as the gecko or chichak. An observant person may sometimes see flying lizards, which actually only glide on membranes extended between the front and back limbs. Sarawak is rich in flying forms, its flying snake being one of most spectacular. This peculiar snake, which looks quite ordinary, can (when it wishes) extend its ribs to produce two lateral sails and glide for quite a distance. One, let go from the upper storey of the Sarawak Museum, went nearly fifty yards. Among the amphibians, there are flying frogs with small bodies and big feet upon which are suckers. There are also very large toads, some weighing several pounds.

#### (iv) *Fish*

Sarawak has an immense diversity of sea fish, more than 50 of which are known and named as of economic interest by Malay and Melanau fishermen of the coast. The barracuda,

bonito, king-fish and horse mackerel are the only sporting fish met with regularly. The Museum has a very fine sail-fish obtained by fishermen in a net in Santubong some years ago. Otherwise, big-game fishing has not yet been proved feasible in these waters.

Hitherto, insufficient has been known about the fresh water fishes over much of the country. The Chicago Natural History Museum, which has already sent two expeditions to Sarawak in the past decade, has now made a considerable grant to the Sarawak Museum to enable some of the major gaps in fish knowledge to be filled. Work on this began in 1958.

(v) *Spineless Animals (Invertebrates)*

Numerous other illustrations of the country's wealth of animal and plant life can be produced: molluscs (shells), crustaceans (crabs, etc.), arthropods (spiders, etc.), and nematodes (worms). In the invertebrate section of spineless or boneless animals the variety of forms is immense. There are also many beautiful butterflies, the loveliest of which is the Rajah Brooke's Bird-wing (*ornithoptera*) which decorated the country's one cent stamp in the King George VI issue.

The great cave at Niah is, among its many other attributes, the only locality in the world recorded in scientific literature as the home of a strange earwig-like parasite called *Arixenia esau* as a result, very little is known of this insect. Following up a scientific paper published in the Royal Entomological Society's journal on the anatomy of this earwig and its related species *Arixenia jacobsoni* (known from Java and Malaya), observations were made on the habits and living conditions of *arixenia* in the cave. These have resolved several mysteries, and have shown, for instance, that the insect is genuinely parasitic—which has before only been conjectured—feeding on the surfaces of the hairless skin of the extraordinary naked bat. An African form of the same family (*hemimerus*) lives in the same way on the skin of a rat.

During 1959 a serious study of butterflies was initiated and will continue in 1960. This includes partly replacing the good but old Museum collections with new, fresh material and a project to make a set of representative paintings of Borneo butterflies for Museum and more general use.

## VI

---

### ADMINISTRATION

SARAWAK is divided for administrative purposes into five Divisions, each in charge of a Resident.

These Divisions are

- the First Division, with headquarters at Kuching;
- the Second Division, with headquarters at Simanggang;
- the Third Division, with headquarters at Sibü;
- the Fourth Division, with headquarters at Miri;
- the Fifth Division, with headquarters at Limbang.

Each Division is sub-divided into a number of Districts, administered by District Officers, and most of the Districts into smaller areas or sub-districts each in charge of a member of the Sarawak Administrative Officers' Service. As far as is practicable, Government attempts to free Residents and District Officers from as much office work as is possible in order that they may tour their areas and maintain the close contact with the people which has always been the keynote of administration.

Progress in local government continued in 1959. Before the war the Native Administration Order was published as an enabling Ordinance to allow the gradual introduction of the people themselves into the administration of their own affairs. This Order contemplated the setting up of village committees to replace the individual chiefs, but the first experiment on these lines did not get very far owing to the outbreak of war and the impossibility of providing adequate supervision. In 1947 a scheme was drawn up for the development of local government through local authorities with their own treasuries. The Local Authority Ordinance, 1948, forms the basis for the powers of these authorities, and their revenues are made up of direct taxes, fines and fees, supplemented by a grant from the central Government calculated according to the number of tax-payers.



Most of the authorities first constituted were established on a racial basis, but this proved to be an unsound foundation, and the pattern on which they are now organised is the mixed, or inter-racial, authority, with jurisdiction over people of all races in the area. As from the beginning of the year 1957 the whole population of the country, about 600,000, was under the jurisdiction of local authorities except for an area, on the north-east coast between Miri and the Brunei border, containing now about 5,000 people, the inclusion of whom in an area administered by a local authority has so far not been possible. All local authorities have a dual function: local government within the limits defined in the Local Authority Ordinance and, as electoral colleges, the election of representatives to Divisional Advisory Councils, which in turn elect members to the Council Negri. In this electoral function three urban councils also elect one representative each direct to the Council Negri. Local authorities are themselves constituted by election.

A general election of representatives to district councils was held for the first time throughout the country during the months of November and December. All council areas were divided into wards avoiding as far as possible the creation of groups on a racial basis and encouraging voting on a territorial basis. Approximately 350 separate elections were held with comparatively little difficulty. The public showed great interest as could be seen from the enthusiasm to vote. The average poll being about seventy-five per cent of the electorate. All the newly elected councils took office with effect from 1st January, 1960.

In 1941, to commemorate the centenary of Brooke rule, His Highness the Rajah granted a Constitution, and in 1946, when Sarawak became a Crown Colony, the Supreme Council and the Council Negri retained the authority granted to them in that Constitution. This gave legislative and financial jurisdiction to the Council Negri, a body of twenty-five members of whom fourteen were official members appointed from the Sarawak Civil Service and eleven unofficial members, representative of the several peoples of the country and their interests. In addition, there were certain Standing Members—natives of Sarawak who had been members of the Council Negri immediately before the enactment of the new Constitution Ordinance. The Council had the power to

make laws for the peace, order and good government of the country, and no public money could be expended or any charge made upon the revenues of the country without the Council's consent. The Constitution also provided for a Supreme Council of not less than five members, of whom a majority should be members of the Sarawak Civil Service and of the Council Negri.

All powers conferred upon the Rajah or the Rajah-in-Council by any written law enacted before the date of operation of the Cession of Sarawak to His Majesty were vested in the Governor-in-Council. In the exercise of his powers and duties the Governor consulted with the Supreme Council, except in making appointments to the Supreme Council and in cases

- (a) of such nature that, in the Governor's judgment, Her Majesty would sustain material prejudice by consulting the Supreme Council thereon; or
- (b) of matters in his judgment too unimportant to require their advice; or
- (c) of matters in his judgment too urgent to admit of their advice being given by the time action might be necessary.

In August 1956 an Order-in-Council was made and Letters Patent and Royal Instructions were promulgated which between them contained a new Constitution for Sarawak. It provides for a new legislative body consisting of forty-four members of whom twenty-four are elected unofficials, fourteen are ex-officio, four are nominated to represent interests which the Governor considers inadequately represented, and the remaining two are standing members. The new Supreme or Executive Council consists of three ex-officio members, namely the Chief Secretary, the Financial Secretary and the Attorney-General, two nominated members and five elected members who are elected, nominated or standing members of the Legislative Council. Councils representing the five Administrative Divisions of Sarawak, or Divisional Advisory Councils, as they are designated, elect twenty-one of the twenty-four unofficial members, and the remaining three members are elected by the Kuching Municipal Council, the Sibuan Urban District Council and the Miri Urban District Council. To qualify for election as an unofficial member

a person must be, amongst other things, over twenty-one years of age and a British subject or a British protected person, and must, with certain exceptions, have resided for at least seven out of the last ten years in Sarawak. This Constitution came into force on 1st April, 1957, the day appointed by His Excellency the Governor for this purpose.

## VII

---

### WEIGHTS AND MEASURES

THE standard weights and measures recognised under the Laws of Sarawak are the Imperial yard, the Imperial pound and the Imperial gallon.

Certain local customary weights and measures having the values set out below are also lawful:

1 Tahil	=	1 $\frac{1}{3}$ ozs
1 Kati (16 tahils)	=	1 $\frac{1}{3}$ lbs
1 Picul (100 katis)	=	133 $\frac{1}{3}$ lbs
1 Koyan (40 pikuls)	=	5333 $\frac{1}{3}$ lbs
1 Chhun	=	1.19/40 inches
10 Chhuns	=	1 Chhek = 14 $\frac{3}{4}$ inches
1 Panchang	=	108 stack cubic feet

## VIII

### NEWSPAPERS AND PERIODICALS

#### KUCHING

	<i>Founde</i>
<i>Sarawak Gazette</i> (monthly: English)	1870
<i>Sarawak Museum Journal</i> (twice yearly: English)	1911
<i>Sarawak Tribune</i> (daily: English)	1945
<i>Chinese Daily News</i> (daily: Chinese)	1945
<i>Utusan Sarawak</i> (tri-weekly: Malay)	1949
<i>Pedoman Ra'ayat</i> (monthly: Malay)	1950
<i>Pembrita</i> (monthly: Iban)	1950
<i>Sarawak Vanguard</i> (daily: Chinese)	1952
<i>Co-operation in Sarawak</i> (quarterly: English—Malay—Chinese—Iban)	1952
<i>Radio Times of Sarawak</i> (fortnightly: English—Malay—Chinese—Iban)	1955
<i>Sin Wen Pau</i> (daily: Chinese)	1956
<i>Sarawak by the Week</i> (weekly: English)	1956
<i>Sarawak Dalam Sa-minggu</i> (weekly: Malay)	1957
<i>Sarawak Times</i> (daily: Chinese)	1958

#### SIBU

<i>Ta Tung Daily News</i> (daily: Chinese)	1945
<i>Sie Hwa Daily News</i> (daily: Chinese)	1945
<i>Yueh Sheng Pau</i> (daily: Chinese)	1958

#### MIRI

<i>Miri Daily News</i> (Chinese)	1957
----------------------------------	------

# IX

---

## BIBLIOGRAPHY

### OFFICIAL PUBLICATIONS

#### GENERAL

- The Colonial Office List*  
*The Sarawak Civil Service List*  
*The Sarawak Government Gazette*  
*The Proceedings of Council Negri*  
*Handbook of Sarawak (1949)*  
*The Annual Reports on Sarawak (1946-1958)*

#### SPECIAL STUDIES

- The Sarawak Museum Journal* (twice yearly) (Kuching: Government Printing Office)  
*The Natural Resources of Sarawak* (Second Edition 1952) (Kuching: Government Printing Office)  
*A Report on the 1947 Population Census*—J. L. Noakes (London: Crown Agents for the Overseas Territories; Kuching, Government Printing Office, 1950)  
*Sarawak Papers: the Scientific Results of the Oxford University Expedition to Sarawak in 1932* (London: Oxford University Press, 1952)  
*Forest Trees of Sarawak and Brunei*—F. G. Browne. (Kuching: Government Printing Office, 1955)  
*Fiscal Survey Report of Sarawak*—Professor T. H. Silcock. (Kuching: Government Printing Office, 1956)  
*Report of the Commission on the Public Services of the Governments of Sarawak, North Borneo and Brunei.* (Kuching: Government Printing Office, 1956)

*Sarawak: Political and Economic Background.* Royal Institute of International Affairs, Chatham House (London: Oxford University Press, 1957)

*Report on Secondary Education*—D. McLellan. (Kuching Government Printing Office, 1959)

*Annual Reports of the Geological Survey Department (1949-1959)* (Kuching: Government Printing Office)

*Geological Memoirs:* (the four following memoirs, relating to Sarawak, form part of a large series of memoirs, reprints, and maps produced by the Geological Survey Office):

Memoir 1. *The Geology and Mineral Resources of the Strap and Sadong Valleys, West Sarawak, including the Klingkang Range Coal*, by N. S. Haile. (Kuching: Government Printing Office, 1954)

Memoir 3. *The Geology and Mineral Resources of the Kuching—Lundu Area, West Sarawak, including the Bau Mining District*, by G. E. Wilford. (Kuching: Government Printing Office, 1955)

Memoir 7. *The Geology and Mineral Resources of the Lupar and Saribas Valleys, West Sarawak*, by N. S. Haile. (Kuching: Government Printing Office, 1957)

Memoir 8. *The Geology and Mineral Resources of the Upper Rejang and Adjacent Areas*, by H. J. C. Kirk. (Kuching: Government Printing Office, 1958)

*Iban or Sea Dayak Fabrics and their Patterns*—Alfred C. Haddon and Laura E. Stark. (Cambridge University Press, 1936)

*A Naturalist in Sarawak*—E. Banks (Kuching Press, 1949)

*Bornean Mammals*—E. Banks. (Kuching Press, 1949)

*Social Science Research in Sarawak*—E. R. Leach (His Majesty's Stationery Office, 1950)

*Report of the Commission on Direct Taxation* (Government Printing Office, 1959)

#### BOOKS

##### GENERAL

*The Expedition to Borneo of H.M.S. Dido for the Suppression of Piracy* (containing extracts from the journals of Sir James Brooke, the first Rajah)—Captain H. Keppel, R.N. (1846)

- Sarawak*—Hugh Low (1948)
- Rajah Brooke's Journals* (the first Rajah)—Captain Mundy, R.N. (1948)
- Life in the Forests of the Far East*—Spencer St. John (1863)
- Ten Years in Sarawak*—Sir Charles Brooke (the second Rajah) (1866)
- The Rajah of Sarawak*—(the first Rajah)—Jacob (1876)
- Natives of Sarawak and British North Borneo*—Ling Roth (1896)
- The Life of Sir James Brooke*—Spencer St. John (1899)
- Sarawak under its Two White Rajahs*—S. Baring-Gould and C. A. Bampfylde (1909)
- Seventeen Years among the Sea Dayaks of Borneo*—Gomes (1911)
- The Pagan Tribes of Borneo*—Hose and McDougall (1912)
- My Life in Sarawak*—Margaret, Ranee of Sarawak (1913)
- Borneo, the Land of River and Palm*—Eda Green (1919)
- Sarawak* (a handbook written for the Malayan-Borneo Exhibition, Singapore, 1922)—Sylvia, Ranee of Sarawak
- Letters from Sarawak*—Harriette McDougall, wife of Francis McDougall, first Bishop of Labuan (1924)
- Rajah Brooke and Baroness Burdett-Coutts* (Letters)—Owen Rutter (1936)
- Borneo Jungle*—Tom Harrisson (1938)
- The Three White Rajahs*—Sylvia, Ranee of Sarawak (1938)
- James Brooke of Sarawak*—Emily Hahn (1953)
- Angela Burdett-Coutts and the Victorians*—Clara Burdett Patterson (London: John Murray, 1953)
- Wings of the Morning*—The Ven. Arthur F. Sharpe (London: Greaves, 1954)
- Sarawak and Its Government*—Hugh Hickling—(Kuching: Government Printing Office, 1954)
- Outlines of Sarawak History—1939-1946*—A. C. Ward and D. C. White—(Kuching: Government Printing Office, 1954)



- Sarawak and Its People*—M. G. Dickson. (Kuching: Government Printing Office, 1954: reprinted 1956)
- Borneo People*—Rt. Hon. Malcolm MacDonald, P.C. (London, Jonathan Cape, 1956)
- The Borneo Story*—Henry Longhurst. (London, Newman Neame, 1956)
- Sarawak*—Hedda Morrison (London, MacGibbon and Kee, 1957)
- Nine Dayak Nights*—W. R. Geddes (Melbourne: Oxford University Press, 1957)
- Longhouse and Jungle*—Guy Arnold, (Chatto and Windus, 1959)
- World Within*—Tom Harrisson (Cresset Press, 1959).
- The Chinese of Sarawak*—Ju K'an T'ien (London School of Economics, 1953)
- Report on a Melanau Sago Producing Community in Sarawak*—H. S. Morris (Her Majesty's Stationery Office, 1953)
- The Land Dayaks of Sarawak*—W. R. Geddes (Her Majesty's Stationery Office, 1954)
- Nineteenth-Century Borneo: A Study in Diplomatic Rivalry*—Graham Irwin—(Singapore: Donald Moore, 1955)
- Report on the Iban of Sarawak*—J. D. Freeman (Kuching: Government Printing Office, 1955)
- Iban Agriculture*—J. D. Freeman (Her Majesty's Stationery Office, 1955)

# APPENDICES

---

A—DEVELOPMENT	- - - - -	209
B—SCHOOL STATISTICS	- - - - -	228
C—ELECTRICITY	- - - - -	230
D—CLIMATE	- - - - -	231
E—THE COUNCILS	- - - - -	234



APPENDIX A  
COLONIAL DEVELOPMENT AND WELFARE SCHEMES — JOINT BORNEO ALLOCATION

Scheme Number	Title of Scheme	Total Grant	Actual Expenditure to 31.12.59	Estimated Expenditure 1960	Balance of Scheme	
D. 823	Coal Investigation ... ..	\$ 92,143	\$ 92,143	—	\$ —	Completed
D. 804 and 804A-D	Sarawak Population Census and Printing of Census Tables* ... ..	223,902	223,902	—	—	Completed
D. 913	Kuching Airport ... ..	411,428	411,428	—	—	Completed
D. 1828	Central Mental Hospital ... ..	15,106	15,106	—	—	Scheme abandoned
	TOTAL, JOINT BORNEO ALLOCATION	742,579	742,579	—	—	

† 50% of total grant, scheme administered by North Borneo Government.

\*Completed before commencement of Development Plan.

APPENDIX A—(contd.)  
 COLONIAL DEVELOPMENT AND WELFARE SCHEMES—CENTRAL ALLOCATION

Scheme Number	Title of Scheme	Total Grant	Actual Expenditure to 31.12.59	Estimated Expenditure 1960	Balance of Scheme	
		\$	\$	\$	\$	
D. 1109 and 1109A	Combined Geological Survey ...	844,352	844,352	—	—	Completed
D. 1109B	Combined Geological Survey ...	325,500	325,113	—	† 387	Scheme closed 31.12.55
D. 1191 (i)	Combined Geological Survey ...	5,047	5,047	—	—	Completed
D. 3021	Combined Geological Survey (1.1.56 - 31.3.60) ...	565,714	500,524	13,500	51,690	*Capital Expenditure. Recurrent Expenditure transferred to Part I Recurrent budget from 1.1.58
D. 1749	Establishment of Broadcasting Service ...	405,536	405,536	—	—	Completed
D. 3781	New Medium Wave Transmitter	107,143	—	104,500	† 2,643	Completed
D. 1692	Meteorological Service ...	197,990	181,753	—	† 16,237	Completed
D. 1117 and 1117A-E	Aeronautical Telecommunications ...	402,000	392,066	—	† 9,934	Completed
D. 1924	Aeronautical Telecommunication Equipment, Sibulairfield ...	81,000	47,132	—	† 33,868	Completed

D. 2502	Aeronautical Telecommunications, Aeradio Equipment for Lutong and Bintulu Airfields ... ..	16,500	13,275	—	3,225	Completed
R. 209 and 209A	Fisheries Survey* ... ..	69,995	69,995 †	—	—	Completed
R. 270 and 270A-G	Sociological Research (Melanau, Iban, Land Dayak and Chinese projects) ... ..	93,266	88,704	—	† 4,562	Completed
R. 438	Sociological Research (Malay project) ... ..	6,000	5,917	—	† 83	Completed
R. 618 A.B. and C	Pepper Disease Investigations ... ..	93,196	92,479	—	717	Scheme continued under Recurrent Budget (Part D) from 1.1.58
R. 848, A and B	Soils Laboratory Organisation	289,000	257,090	29,194	2,716	
R. 1004	Agricultural Research ... ..	1,167,134	59,864	509,710	597,560	
R. 1006	Silviculture and Mensuration Research ... ..	73,857	—	17,960	55,897	
R. 1037	New Herbarium ... ..	40,990	—	40,990	—	
	TOTAL, CENTRAL ALLOCATION ... ..	4,784,220	3,288,847	715,854	779,519	

† Saving on scheme.

\* Completed before commencement of Development Plan.

‡ Net expenditure after deducting revenue earned by scheme.

APPENDIX A—(contd.)  
 COLONIAL DEVELOPMENT AND WELFARE SCHEMES—SARAWAK ALLOCATION (COLONIAL DEVELOPMENT  
 AND WELFARE FUNDS PORTION)

<i>Scheme Number</i>	<i>Title of Scheme</i>	<i>Total Grant</i>	<i>Actual Expenditure to 31.12.59</i>	<i>Estimated Expenditure 1960</i>	<i>Balance of Scheme</i>	
D. 816 and D. 816A	AGRICULTURE	\$ 102,575	\$ 102,575	—	\$ —	Completed
D. 826	Agriculture Soil Survey ... Rubber Improvement (Extension) ...	64,617	† 64,617	—	—	Completed
D. 954	Cultivation of Cash Crops ...	100,960	† 100,960	—	—	Completed
D. 968	Visit of Malayan Irrigation Engineer ...	1,934	1,934	—	—	Completed
D. 973 and 973A	Experiments in Mechanical Cultivation ...	82,709	† 82,709	—	—	Completed
D. 1208 and 1208A-B	Rice Cultivation—Paya Megok	493,192	† 485,063	—	8,129	Completed
D. 1424	Cocoa Seed Production Station	15,135	15,135	—	—	Completed
D. 1519	Department of Agriculture Staff Training School ...	99,755	99,755	—	—	Completed
D. 1664	Farm Mechanisation ...	153,350	† 153,350	—	—	Completed
D. 2080	Rice Cultivation Niah/Sibuti ...	80,362	† 80,062	—	300	Completed
D. 2233	Rice Investigation (Pot Culture Experiments) ...	3,025	3,025	—	—	Scheme abandoned
D. 2311 and D. 2311A	Rice Investigation (Wet Padi Land Surveys) ...	270,000	270,000	—	—	Completed
D. 3138 and D. 3138A	Soils Laboratory Organisation	158,880	158,880	—	—	Original Colonial Development and Welfare allocation \$166,928. Scheme value in Development Plan 1959-63 has however been reduced, and actual Colonial Development and

D. 2832	Extension Broadcasting Service	327,428	327,428	—	—
D. 913A-B	CIVIL AVIATION				
D. 1542 and D. 1542A	Kuching Airport (Supplementary) ... ..	291,432	291,432	—	Completed
D. 1923	Sibu Airfield ... ..	180,000	180,000	—	Completed
D. 3989	Sibu Airfield—Buildings ... ..	275,079	275,079	—	Completed
D. 4106	Kuching Airport—Extension to Runway ... ..	297,500	187,073	42,500	67,927
	Bario Airfield ... ..	44,625	—	44,625	—
D. 838	EDUCATION				
D. 839 and 839A	Rural Improvement School, Kanowit ... ..	248,092	† 248,092	—	Completed
D. 1871	Batu Lintang Teacher Training Centre and School ... ..	544,607	† 544,607	—	Completed
D. 1875 and D. 2783	Grants for Domestic Science Rooms ... ..	80,000	79,312	—	688
D. 3712 and D. 3712A	Grants for Science Laboratories Batu Lintang Training College —Permanent Buildings ... ..	225,000	187,553	—	37,447
D. 3768	Literature Bureau ... ..	1,875,000	663,897	765,951	445,152
		249,300	8,515	218,732	22,053
D. 4089	Simanggang School (Buildings and Equipment) ... ..	633,250	—	297,500	335,750
D. 821	FISHERIES				
D. 837 and D. 837A	Training of Fishery Survey Officer* ... ..	2,316	2,316	—	Completed
	Fisheries Survey* ... ..	69,995	† 69,995	—	Completed

†Net expenditure after deducting revenue earned by scheme.

\*Scheme completed before commencement of Development Plan.



APPENDIX A—(contd.)  
 COLONIAL DEVELOPMENT AND WELFARE SCHEMES—SARAWAK ALLOCATION (COLONIAL DEVELOPMENT  
 AND WELFARE FUNDS PORTION)

<i>Scheme Number</i>	<i>Title of Scheme</i>	<i>Total Grant</i>	<i>Actual Expenditure to 31.12.59</i>	<i>Estimated Expenditure 1960</i>	<i>Balance of Scheme</i>	
D. 1120	FORESTRY Forestry Development (1.1.50-31.12.55) ... ..	\$ 339,521	\$ 339,521	—	\$ —	Scheme closed on 31.12.55 and continued under Scheme D.2791
D. 2791	Forestry Development (1.1.56--31.12.59) ... ..	363,428	332,773	—	30,655	Scheme continued under Recurrent Budget (Part D) from 1.1.58
D. 1430 and D. 1430A	GOVERNMENT BUILDINGS Senior Service Quarters ...	217,383	217,383	—	—	Completed
D. 3800	LAND Samarahan Estate Drainage	270,000	141,836	117,953	10,211	
D. 3954	Scheme ... .. Tellurometer Survey ... ..	63,750	—	49,300	14,450	
D. 830	MEDICAL Travelling Dispensaries ... ..	638,419	‡ 638,419	—	—	Completed
D. 2442	Mental Hospital ... ..	1,500,000	1,499,843	—	157	
D. 4077	Sarikei Hospital ... ..	310,675	—	85,000	225,675	
D. 1273	PORT DEVELOPMENT Test Bores, Rejang and Kuching Rivers ... ..	75,559	75,559	—	—	Completed
D. 3550	Wharf and River walls, Kuching Port Development ... ..	2,442,000	2,276,617	—	165,383	

	RESEARCH AND INVESTIGATIONS							
D. 4122	Hydrological Survey ... ..	94,775	—	50,575	44,200			
D. 4107	Feeder Roads Surveys ... ..	176,800	—	21,250	155,550			
	<b>ROADS AND BRIDGES</b>							
D. 944	Secondary Roads and Telecommunications ... ..	98,911	98,911	—	—	Completed		
D. 1076 and D. 1076A-E	Road Development Scheme ... ..	2,098,151	2,097,756	—	395	Completed		
D. 3124	Serian-Simanggang Road ... ..	14,982,560	5,568,300	3,399,660	6,014,600			
D. 3938	Sibu/Ulu Oya Road ... ..	1,135,600	147,727	297,500	690,373			
D. 4084	Lundu/Serayan Road ... ..	212,500	—	212,500	—			
D. 4088	Sarikei/Binatang Road (Part) ... ..	1,586,100	—	352,718	1,233,382			
	<b>PLANT AND EQUIPMENT</b>							
D. 4052	P.W.D. Plant and Equipment	425,000	—	425,000	—			
	<b>MISCELLANEOUS</b>							
D. 4168	Recreational Facilities (Kuching)	212,500	—	85,000	127,500			
	<b>TOTAL, SARAWAK ALLOCATION</b>	<b>34,451,750</b>	<b>18,118,009</b>	<b>6,703,764</b>	<b>9,629,977</b>			

‡Net expenditure after deducting revenue earned by scheme.

APPENDIX A—(contd.)  
DEVELOPMENT PLAN SCHEMES—SARAWAK FUNDS (INCLUDING LOAN FUNDS)

<i>Title of Scheme</i>	<i>Total Estimated Cost of Scheme</i>	<i>Actual Expenditure to 31.12.59</i>	<i>Estimated Expenditure 1960</i>	<i>Balance of Scheme</i>	
	\$	\$	\$	\$	
<b>AGRICULTURE</b>					
Agricultural Credit—Loan to Co-operative Central Bank ... ..	250,000	250,000	—	—	Completed
Fertiliser Manufacture Experiments ... ..	4,970	4,970	—	—	Completed
Agricultural Extension and Rural Education Centres ... ..	525,700	105,411	234,900	185,389	
Development of Farm Mechanisation ... ..	369,975	299,492	10,000	60,483	
Animal Husbandry—Purchase of Livestock	100,510	76,231	5,000	19,279	
Veterinary Clinics ... ..	164,360	87,517	17,947	58,896	
Quarantine Stations ... ..	20,000	7,859	—	12,141	
Pepper Disease Investigations ... ..	135,071	125,116	—	9,955	Completed
Pepper Processing Plant, Sarikei ... ..	300,000	88,775	111,500	99,725	
Pepper Processing ... ..	300,000	—	—	300,000	
Coconut Planting Scheme ... ..	1,200,000	115,444	316,622	767,934	
Research: Soils Investigations ... ..	100,000	21,488	33,800	44,712	
Agricultural Research Scheme ... ..	266,405	10,718	83,003	172,684	
Rice Cultivation—Paya Megok ... ..	107,725	104,228	—	3,497	Completed
Rice Cultivation—Niah/Sibuti ... ..	80,234	80,234	—	—	Completed
Rice Cultivation (Bijat and Pujut Lopeng)	9,969	9,969	—	—	Completed
Rice Investigation (Wet Padi Land Surveys)	1,500	1,157	—	343	Completed
Rice Cultivation—Assistance to Padi Planters ... ..	250,000	10,666	50,000	189,334	
Rubber Planting ... ..	35,550,000	5,511,384	3,752,982	26,285,634	
Rubber Research ... ..	1,000,000	600,000	100,000	300,000	
Sago Industry ... ..	7,668	7,668	—	—	Completed
Sago Industry ... ..	250,000	—	—	250,000	

Recurrent Expenditure transferred to Part I from 1.1.58

\$166,929. Scheme value in Development Plan 1959-63 has however been reduced and actual Sarawak funds contribution is \$158,880

Agricultural Station ... ..	100,000	—	—	100,000	Completed
New Crops ... ..	300,000	—	—	300,000	Completed
	(41,552,967)	(7,677,207)	(4,715,754)	(29,160,006)	
<b>BROADCASTING</b>					
Establishment of Broadcasting Service ... ..	515,946	515,946	—	—	Completed
Extension of Broadcasting Service ... ..	519,046	516,470	—	2,576	Completed
	(1,034,992)	(1,032,416)	( — )	(2,576)	
<b>CIVIL AVIATION</b>					
Kuching Airport—Turbing, anti-erosion and Sub-soil drainage ... ..	77,493	77,493	—	—	Completed
Sematan Airfield ... ..	18,000	17,913	—	87	Completed
Simanggang Airfield ... ..	355,827	355,827	—	—	Completed
Sibu Airfield ... ..	151,346	151,346	—	—	Completed
Sibu Airfield Extension ... ..	400,000	184,849	150,127	65,024	Completed
Mukah Airfield ... ..	84,711	84,040	—	671	Completed
Belaga Airfield ... ..	100,000	99,033	—	967	Completed
Bintulu Airfield—Reconstruction ... ..	165,453	165,453	—	—	Completed
Ulu Airstrips ... ..	45,500	32,230	—	13,270	Completed
Marudi Airfield ... ..	78,800	73,566	—	5,234	Completed
Lawas Airfield ... ..	51,000	50,685	—	315	Completed
Air Services Development ... ..	1,000,000	825,964	143,321	30,715	Completed
Lutong Airfield—Building ... ..	18,842	18,842	—	—	Completed
Airport Equipment, Fire-fighting (Kuching and Sibu) ... ..	127,406	127,406	—	—	Completed
Fire-fighting Equipment (Simanggang, Mukah, Marudi) ... ..	102,270	102,269	—	1	Completed
Internal Air Service (Lutong) ... ..	3,992	3,992	—	—	Completed
Internal Air Service (Labuan Hangar—Part) ... ..	28,000	28,000	—	—	Completed
Internal Air Service (Acquisition of sites) ... ..	63,719	63,719	—	—	Completed
Sub-soil drains—Kuching Airport ... ..	37,000	—	37,000	—	Completed

APPENDIX A—(contd.)  
DEVELOPMENT PLAN SCHEMES—SARAWAK FUNDS (INCLUDING LOAN FUNDS) (contd.)

Title of Scheme	Total Estimated Cost of Scheme	Actual Expenditure to 31.12.59	Estimated Expenditure 1960	Balance of Scheme	
	\$	\$	\$	\$	
<b>CIVIL AVIATION—(Contd.)</b>					
Access Road to Kuching Airport ...	66,918	66,918	—	—	Completed
Kuching Airport—Extension to Runway ...	52,500	32,837	7,500	12,163	
Bario Airfield ...	7,875	—	7,875	—	
	(3,036,652)	(2,562,382)	(345,823)	(128,447)	
<b>COMMUNITY DEVELOPMENT</b>					
Henghua Fishermen's Housing Scheme, Kuching ...	152,190	152,190	—	—	Completed
Muara Tuang Scheme, First Division (1953-1957) ...	27,399	27,399	—	—	Completed
Padawan Scheme, First Division (1956-1960) ...	179,948	117,984	47,982	13,982	
Budu Scheme, Second Division (1953-1961)	365,613	247,015	40,580	78,018	
Entabai Scheme, Third Division (1957-1960)	264,617	132,567	72,741	59,309	
Iban Teams Project, Third Division (1959-1965) ...	199,625	17,895	29,530	152,200	
Long Lama Scheme, Fourth Division (1956-1960) ...	193,526	143,463	49,360	703	
Rural Homecraft Instructors (1957-1960)	36,100	21,593	12,494	2,013	
Contribution to Sarawak Council for Adult Education ...	36,462	36,462	—	—	} Transferred to Part I from 1.1.58
Community Development Staff ...	63,705	63,705	—	—	
U.K. Volunteers Project ...	46,650	17,731	23,900	5,019	
Training ...	6,560	3,656	—	2,904	
	(1,572,395)	(981,660)	(276,587)	(314,145)	
<b>EDUCATION</b>					
Rural Improvement School, Kanowit ...	194,713	194,713	—	—	Completed

	158,501	158,501	158,501			
Local Scholarships ... ..	158,501	—	—	Transferred to recurrent budget (Part I) from 1.1.54	—	—
Overseas Scholarships and In-Service Training ... ..	3,400,000	483,363	940,152	Transferred to recurrent budget (Part I) from 1.1.58	180,000	180,000
Scholarship Loans (recoverable) ... ..	200,000	20,000	—		—	—
Production of Vernacular Literature ... ..	3,187	3,187	—		—	—
Trade and Technical Education ... ..	600,446	1,000	559,000		559,000	559,000
Batu Lintang Training Centre—Permanent Buildings ... ..	625,000	221,299	148,384		148,384	148,384
Commercial Courses ... ..	20,000	10,577	7,923		7,923	7,923
Library Establishment ... ..	195,000	194,858	142		142	142
Tanjong Lobang School, Miri ... ..	1,580,749	—	98,000		98,000	98,000
Dragon School, 24th Mile, Kuching ... ..	1,435,189	—	196,000		196,000	196,000
Kanowit School (Renovation and Equipment) ... ..	50,000	—	9,000		9,000	9,000
Kanowit School (New Building) ... ..	350,000	—	250,000		250,000	250,000
Simanggang School (Site Investigation) ... ..	10,000	—	—		—	—
Simanggang School (Buildings and Equipment) ... ..	111,750	—	52,500		52,500	52,500
Mukah Junior Secondary School ... ..	350,000	—	150,000		150,000	150,000
Total Government Secondary Schools ... ..	(3,887,688)	(2,537,271)	(594,917)		(594,917)	(594,917)
Chinese Teacher Training ... ..	466,157	459,024	7,133		7,133	7,133
Group Headmaster Scheme ... ..	175,000	80,047	73,203		73,203	73,203
Capital Grants to Education Agencies ... ..	4,500,000	2,783,656	916,344		916,344	916,344
Loans to Agencies and Local Authorities (Recoverable) ... ..	750,000	268,000	332,000		332,000	332,000
Literature Bureau ... ..	166,200	5,677	145,821		145,821	145,821
Lutung School ... ..	88,000	82,633	5,367		5,367	5,367
	(15,760,316)	(9,306,798)	(3,819,267)		(3,819,267)	(3,819,267)
<b>FISHERIES</b>						
Marine Fisheries Research Station, Singapore ... ..	26,733	24,404	2,329		2,329	2,329
Fishery Development ... ..	306,885	306,884	1		1	1

APPENDIX A—(contd.)  
DEVELOPMENT PLAN SCHEMES—SARAWAK FUNDS (INCLUDING LOAN FUNDS) (contd.)

Title of Scheme	Total Estimated Cost of Scheme	Actual Expenditure to 31.12.59	Estimated Expenditure 1960	Balance of Scheme	
<b>FISHERIES—(Contd.)</b>					
Freshwater Fisheries ... ..	\$ 65,500	\$ 14,111	5,000	46,389	Completed
Inboard Engines for Local Fishing Craft ... ..	49,937	49,937	—	—	Completed
Fisheries Survey ... ..	12,857	12,857	—	—	
	(461,912)	(408,193)	(5,000)	(48,719)	
<b>FORESTRY</b>					
Grant towards establishment of National Park ... ..	49,998	49,998	—	—	Completed
Forestry Development (1.1.56 - 31.12.59) ... ..	53,645	53,645	—	—	Completed. Transferred to recurrent budget (Part I) from 1.1.58
Timber Plantations ... ..	81,000	—	—	81,000	
	(184,643)	(103,643)	( — )	(81,000)	
<b>FUEL AND POWER</b>					
Electricity Supplies ... ..	10,775,200	10,275,200	500,000	—	Completed
Electricity Supplies, Lundu (Loan to Lundu District Council) ... ..	42,300	42,300	—	—	Completed
Electricity Supplies, Kuching ... ..	46,500	46,500	—	—	Completed
	(10,864,000)	(10,364,000)	(500,000)	( — )	
<b>GEOLOGICAL SURVEY</b>					
Combined Geological Survey (D.1109B) (1.4.52-31.12.55) ... ..	325,113	325,113	—	—	Completed
Combined Geological Survey (Scheme D.3021) (1.1.56-31.3.60) ... ..	236,032	236,032	—	—	Completed Transferred to recurrent budget

High Court Air-conditioning, Sibul	10,000	14,150	100,000	100,000	100,000	Completed
New Post Office, Sibul	200,000	—	—	—	100,000	Completed
New Government Office, Tatau	30,000	29,761	—	—	239	Completed
New Government Office, Sundar	27,000	26,755	—	—	245	Completed
New Court House, Limbang	20,000	19,947	—	—	53	Completed
Rehabilitation of Lundu Station	345,412	345,412	—	—	—	Completed
New Government Office, Kuching	1,135,655	1,135,655	—	—	—	Completed
Extension of Government Office, Simanggang	57,687	57,687	—	—	—	Completed
New District Office, Lawas	47,679	47,679	—	—	—	Completed
P.W.D. Garage, Kuching	276,698	276,698	—	—	—	Completed
P.W.D. Depot (First and Second Divisions)	240,661	240,661	—	—	—	Completed
P.W.D. Depots (Simanggang, Sarikei, Miri and Limbang)	500,000	272,508	197,115	—	30,377	Completed
Miri Government Office, Extension	57,000	47,295	—	—	9,705	Completed
Extensions and Improvements, Government Offices, Kuching	1,248,000	205,357	792,975	—	249,668	Completed
Information Office	145,000	140,215	(1,090,090)	—	4,785	Completed
	(4,346,792)	(2,859,760)			(396,942)	
HOUSING						
Miri Housing Scheme	920,507	912,448	3,859	—	4,200	Completed
Kuching Housing Scheme	3,850,000	3,850,000	—	—	—	Completed
Civil Servants' Housing Loan	3,920,000	2,584,917	700,000	—	635,083	Completed
Investment in New Building Society	500,000	250,000	250,000	—	—	Completed
	(9,190,507)	(7,597,365)	(953,859)	—	(639,283)	
LAND						
<i>Drainage and Irrigation:—</i>						
Samarahan Estate Drainage Scheme	156,294	113,573	39,317	—	3,404	Completed
Preliminary Surveys	63,500	19,691	43,500	—	309	Completed
River Clearance Work	19,800	—	10,000	—	9,800	Completed
Land Utilisation and Development	1,894,155	510,413	179,496	—	1,204,246	Completed
Tellurometer Survey	11,250	—	8,700	—	2,550	Completed
Acquisition of Land for Development Purposes	1,295,500	1,247,625	15,667	—	32,208	Completed
Land Settlement Scheme — Samarahan Estate Pilot Scheme	73,000	48,776	17,873	—	6,351	Completed



APPENDIX A—(contd.)  
DEVELOPMENT PLAN SCHEMES—SARAWAK FUNDS (INCLUDING LOAN FUNDS) (contd.)

Title of Scheme	Total Estimated Cost of Scheme	Actual Expenditure to 31.12.59	Estimated Expenditure 1960	Balance of Scheme	
	\$	\$	\$	\$	
<b>LAND—(Contd.)</b>					
Land Settlement Scheme — Samarahan	10,000	—	10,000	—	
... ..					
... ..	(3,523,499)	(1,940,078)	(324,553)	(1,258,868)	
<b>MEDICAL</b>					
Health Centre, Kuching	316,568	316,568	—	—	Completed
Leper Settlement	550,000	505,932	23,500	20,568	Completed
Travelling Dispensaries	146,458	146,458	—	—	Transferred to recurrent budget (Part I) from 1.1.54
Travelling Doctors Scheme	40,688	1,687	—	39,001	Completed
Extension of Anti-Tuberculosis Facilities, Kuching	110,000	54,039	55,961	—	Completed
Anti-Tuberculosis Campaign	95,000	71,139	—	23,861	Completed
W.H.O. Anti-Malarial Survey, Local Contribution	74,712	74,712	—	—	Completed
Anti-Malarial Campaign	5,350,000	2,356,302	855,260	2,138,438	Completed
Sibu Hospital—Extension	1,510,500	1,296,595	90,304	123,701	Completed
Sarikei Hospital	54,825	—	15,000	39,825	Completed
New Hospital, Simanggang	1,324,897	960,716	155,750	208,431	Completed
Kuching Hospital Improvements	482,180	404,814	—	77,366	Completed
Casualty Reception Centre, Kuching Hospital	150,000	—	—	150,000	Completed
Miri Hospital, Renovation	225,000	—	225,000	—	Completed
Mental Hospital	953,125	929,637	—	23,488	Completed
Dispensaries	350,000	318,226	7,934	23,840	Completed

	1,000,000 (13,124,053)	(7,459,603)	100,000 (1,563,709)	500,000 (4,100,741)	Transferred to recurrent budget (Part I) from 1.1.54
and tuberculosis) ... ..					
<b>METEOROLOGICAL</b>					
Meteorological Service ... ..	18,739	18,739	—	—	
<b>PORT DEVELOPMENT</b>					
Gunong Ayer ... ..	481,575	481,575	—	—	Completed
Oil Storage Depot, Bukit Biawak, Kuching	276,013	276,013	—	—	Completed
Oil Storage Depot, Sungai Merah, Sibul	45,000	43,033	—	1,967	Completed
Sibu Port Development ... ..	2,400,000	2,052,622	248,919	98,459	
Miri Port Development ... ..	362,000	151,421	18,249	192,330	
Kuching Port Development ... ..	4,488,000	2,496,797	1,436,186	555,017	
Extension of Kuching Wharf ... ..	1,124,000	715,962	139,000	269,038	
Kuala Baram Wharf ... ..	117,500	86,184	10,000	21,316	
Minor Wharfage ... ..	500,000	372,003	12,000	115,997	
Brooke Dockyard ... ..	800,000	520,957	226,567	52,476	
Sarikei Wharf ... ..	22,778	22,778	—	—	Scheme abandoned
Simanggang Wharf and Equipment: Site Investigations ... ..	7,493	9,577	—	—	
Simanggang Wharf and Equipment: Main Works ... ..	42,000	—	42,000	—	
Improvements to Biawak Wharf ... ..	260,000	—	260,000	—	
	(10,926,359)	(7,228,922)	(2,392,921)	(1,306,600)	
<b>RESEARCH AND INVESTIGATIONS</b>					
Preliminary Surveys ... ..	70,000	63,236	4,374	2,390	Completed
Experimental Iodised Salt ... ..	22,000	17,112	—	4,888	Completed
Grading of Timber ... ..	2,469	2,469	—	—	Completed
Pepper Marketing Investigations ... ..	45,000	43,403	—	1,597	Completed
Survey of Electricity Supply Problems ... ..	9,818	9,818	—	—	Completed
Bau Gold Mining Extraction — Investi- gations ... ..	3,500	2,633	—	867	Completed
Plateau Area Investigations ... ..	5,000	5,000	—	—	Completed
Kerangas Soil Survey ... ..	5,551	5,551	—	—	Completed
Timber Depot Investigations ... ..	8,170	8,112	—	58	Completed

APPENDIX A—(contd.)  
DEVELOPMENT PLAN SCHEMES—SARAWAK FUNDS (INCLUDING LOAN FUNDS) (contd.)

Title of Scheme	Total Estimated Cost of Scheme	Actual Expenditure to 31.12.59	Estimated Expenditure 1960	Balance of Scheme	
	\$	\$	\$	\$	
<b>RESEARCH AND INVESTIGATIONS</b>					
—(Contd.)					
Survey of Baram River Mouth ...	1,543	1,543	—	—	Completed
Survey of Lundu and Saratok Airfields ...	1,719	1,719	—	—	Completed
Timber Marketing Investigations ...	15,300	—	2,000	13,300	Completed
Port Investigations ...	6,094	6,024	—	70	Completed
Rejang River — Port Lighterage Invest-	8,000	1,303	—	6,697	Scheme abandoned
gations ...	50,000	—	35,420	14,580	
Soils and Site Investigations ...	16,725	—	8,925	7,800	
Hydrological Survey ...	31,200	—	3,750	27,450	
Feeder Roads Survey ...	6,000	—	6,000	—	
Palaeontological Study ...	(308,089)	(167,923)	(60,469)	(79,697)	
<b>ROADS AND BRIDGES</b>					
Road Reconstruction Programme ...	17,907,823	16,280,248	946,598	680,977	Completed
Preliminary Surveys for Secondary Roads	8,746	8,746	—	—	
Serian/Simanggang Road ...	3,517,440	1,856,100	599,940	1,061,400	
Town Roads, Second Division ...	250,000	173,576	75,000	1,424	
Miri/Bekenu Road (Brighton Road Section)	90,000	88,224	—	1,776	
Miri Town Area Roads ...	385,000	22,227	332,661	30,112	
Sarikei/Binatang Road ...	3,343,900	1,743,395	623,823	976,682	
Secondary Roads, Fifth Division ...	1,247,000	798,715	313,274	135,011	
Minor Roads and Paths ...	3,000,000	2,109,419	449,012	441,569	
Batu Kitang Bridge-Investigation ...	54,846	54,846	—	—	Completed
Grants to Kuching Rural District Council	1,090,900	807,638	283,262	—	
and Upper Sadong District Council	464,232	464,232	—	—	
(Senah Negri and Tebedu Roads)	200,400	26,069	52,500	121,831	
Road Development ...					
Sibu/Ulu Oya Road ...					

	252,576	1,424	Completed
<b>TELECOMMUNICATIONS</b>			
Survey of Telecommunications Plan	10,540	—	Completed
VHF Radio/Telephone System	4,968,100	77,438	3,306
Multi-Channel VHF Radio	2,000,000	413,000	302,749
Telephone Exchange, Kuching	1,316,679	—	7,500
Extension Telephone Exchange, Kuching	781,240	132,008	—
Telephone Exchange, Sibü	629,480	41,419	—
Extension Telephone Exchange, Sibü	420,500	320,500	100,000
Telephone Exchange, Miri	617,032	21,894	2,266
Improvement of W/T Service at Simanggang	11,259	—	Completed
Outstation Telephone System	455,000	22,670	2,930
H.F. Telephone Links to Ulu Areas	20,000	516	—
Contingencies	19,441	3,231	—
Aeronautical Telecommunications	768,100	—	Completed
Aeronautical Telecommunications—Equipment for new airfields	100,000	16,895	1,683
	(12,117,371)	(1,049,571)	(420,434)
<b>SOCIOLOGICAL RESEARCH</b>			
Sarawak Contribution to C.D. & W. Scheme R.270	8,015	—	Completed
<b>TOWN DEVELOPMENT</b>			
Limbang Bazaar	154,700	—	Completed
Bekenu Bazaar	92,176	—	Completed
Simanggang Bazaar	169,434	—	Completed
Panchor Bazaar	276	—	Completed
Sibü Bazaar	2,174,208	557,738	167,620
Miri Bazaar	300,000	99,720	24,967
Kampong Gita, Kuching	722,095	82,000	39,909
Simunjan Bazaar	175,000	60,000	43,974
Lawas Bazaar	174,000	55,346	76,781
Marudi Bazaar	180,000	15,000	20,858

APPENDIX A—(contd.)  
DEVELOPMENT PLAN SCHEMES—SARAWAK FUNDS (INCLUDING LOAN FUNDS) (contd.)

Title of Scheme	Total Estimated Cost of Scheme	Actual Expenditure to 31.12.59	Estimated Expenditure 1960	Balance of Scheme	
	\$	\$	\$	\$	
<b>TOWN DEVELOPMENT—(Contd.)</b>					
Saratok Bazaar ... ..	* 200,000	—	—	—	
Maong Bazaar ... ..	145,000	55,990	36,756	52,254	
Bazaar Drains ... ..	300,000	109,100	19,300	171,600	
Batu Lintang Bazaar ... ..	73,000	29,274	43,300	426	
Bangkita Scheme—Limbang ... ..	42,000	18,829	15,233	7,938	
Industrial Development in Padungan, Kuching ... ..	117,000 (4,818,889)	— (3,106,595)	117,000 (1,101,393)	— (610,901)	
					*Scheme value was \$200,000. Scheme abandoned
<b>WATER SUPPLIES</b>					
Grant to Kuching Water Board ... ..	4,519,273	4,518,575	—	698	Completed
Grant to Sibiu Water Board ... ..	915,000	882,216	—	32,784	Completed
Sungei China Pipeline, Kuching ... ..	340,605	340,605	—	—	Completed
Simunjan ... ..	68,734	68,734	—	—	Completed
Sarikei and Binatang ... ..	999,780	998,042	—	1,738	Completed
Bau ... ..	60,000	54,828	—	5,172	Completed
Miri ... ..	453,500	446,254	—	7,246	Completed
Limbang (Improvements) ... ..	15,022	15,022	—	—	Completed
Lawas ... ..	88,000	87,414	—	586	Completed
Kapit ... ..	94,000	—	—	25,000	
Kanowit ... ..	98,000	—	—	98,000	
Song ... ..	82,000	—	—	82,000	
Mukah Waterworks ... ..	8,000	694	—	7,306	Completed
Simanggang ... ..	460,000	425,367	—	34,633	
	51,000	52,550	—	1,450	

Establishment of Metered Systems ...	245,100	211,267	6,390	27,443
Loan Finance for Minor Water Supply Schemes ...	991,964	13,503	666,260	312,201
Loan for Kuching Water Board ...	3,325,000	—	811,000	2,514,000
Loan for Sibü Water Board ...	1,768,000	—	823,000	945,000
	(14,834,978)	(8,198,209)	(2,682,450)	(3,954,319)
<b>WATERWAYS</b>				
Sungei Kut Canal ...	380,000	350,878	29,122	—
River Works (anti-erosion works and blasting of works in rapids) ...	546,575	377,586	114,020	54,969
Hydrographic Survey ...	60,000	52,024	6,000	1,976
Aikman Canal Improvements—preliminary works ...	12,000	10,600	—	1,400
	(998,575)	(791,088)	(149,142)	(58,345)
<b>DEVELOPMENT STAFF</b>				
Personal Emoluments and Capital Expenditure ...	2,945,300	2,241,737	194,480	509,083
<b>PLANT AND EQUIPMENT</b>				
Public Works Department Plant and Equipment (Scheme I) ...	2,600,000	2,458,594	—	141,406
Public Works Department Plant and Equipment (Scheme II) ...	75,000	—	75,000	—
	(2,675,000)	(2,458,594)	(75,000)	(141,406)
<b>MISCELLANEOUS</b>				
Dayak Resthouses ...	50,194	47,694	2,500	—
Provision for Recreational Facilities (Scheme I) ...	232,000	231,978	—	22
Provision for Recreational Facilities (Scheme II) ...	287,500	—	15,000	272,500
Development Finance Corporation ...	1,000,000	1,000,000	—	—
	(1,569,694)	(1,279,672)	(17,500)	(272,522)
<b>TOTAL DEVELOPMENT PLAN SCHEMES—SARAWAK FUNDS</b>				
	188,292,669	113,687,121	23,846,122	50,761,510
				Completed



## APPENDIX B—(contd.)

TABLE IB. NUMBER OF PUPILS CLASSIFIED BY RACE AND TYPE OF SCHOOL AS IN SEPTEMBER, 1959

(In this table the columns for Local Authority and Missions include all schools under these managements, whatever the medium of instruction.)

Race of Pupils	Total Population of Racial Group (Estimated 1958)	Type of Schools							Unaided Schools	Total		Percentage of Population
		Government Schools	Aided Schools				Private (Village Committee)					
			Local Authority	Missions	Chinese Boards							
Chinese	P. 63	P. 1,400	P. 8,636	P. 39,747	P. 4	P. 1,483	P. 51,333	P. 1,483	P. 51,333	58,718	27.34	
	S. 182	S. —	S. 2,843	S. 4,360	S. —							S. —
Malays	P. 214	P. 12,104	P. 1,049	P. 76	P. 808	P. 152	P. 14,403	P. 152	P. 14,403	14,932	12.19	
	S. 223	S. —	S. 306	S. —	S. —							S. —
Dayaks and Other Indigenous	P. 193	P. 13,431	P. 8,054	P. 122	P. 49	P. 355	P. 22,204	P. 355	P. 22,204	22,765	6.93	
	S. 158	S. —	S. 403	S. —	S. —							S. 561
Other Asian	P. 31	P. 144	P. 261	P. 5	P. —	P. 25	P. 466	P. 25	P. 466	523	7.21	
	S. 1	S. —	S. 56	S. —	S. —							S. 57
Eurasians and Europeans	P. —	P. —	P. 145	P. —	P. —	P. 36	P. 181	P. 36	P. 181	205	8.58	
	S. 1	S. —	S. 23	S. —	S. —							S. —
TOTAL	P. 501	P. 27,079	P. 18,145	P. 39,950	P. 861	P. 2,051	P. 88,587	P. 2,051	P. 88,587	97,143	14.38	
	S. 565	S. —	S. 3,631	S. 4,630	S. —							S. —

P denotes Primary and S denotes Secondary.



APPENDIX C  
SARAWAK ELECTRICITY SUPPLY COMPANY LIMITED POSITION AS AT 31ST DECEMBER, 1959

Township or Location	Installed Capacity kW	Maximum Demand on Station kW	Type of Supply	Units Sold 1959	No. of Consumers	Daily Supply Period (Hrs)	Remarks
Kuching ...	4,050	2,389	A.C.	8,123,988	5,690	24	Old Kuching Power Station shut down August. Sungei Priok new station took over the total Kuching load.
10th Mile ...	12	10	A.C.	12,740	40	12	—
Bau ...	100	37	A.C.	49,411	118	13	—
Serian ...	92	33	A.C.	45,928	97	13	—
Betong ...	100	40	A.C.	50,356	140	13	—
Simanggang ...	192	120	A.C.	207,297	304	24	Extra plant installed.
Sibu ...	1,500	895	A.C.	2,937,866	2,631	24	Plant ex-Kuching installed.
Sarikei ...	172	137	A.C.	304,490	339	24	Extra plant to be installed.
Binatang ...	118	56	A.C.	92,325	198	13	Converted to A.C. Extra plant installed.
Kanowit ...	100	49	A.C.	70,122	137	13	Extra plant installed.
Mukah ...	132	56	D.C.	114,261	186	18	Extra plant installed.
Miri ...	784	386	A.C.	1,009,985	934	24	Plant ex-Kuching installed.
Bintulu ...	125	56	A.C.	78,838	192	13	Converted to A.C. Extra plant installed.
Marudi ...	100	51	A.C.	68,213	160	13	—
Limbang ...	111	64	A.C.	109,254	228	24	24 hour supply introduced commissioned in May.
Kapit ...	125	60	A.C.	42,237	113	13	—
<b>TOTALS</b>	<b>7,913</b>			<b>13,317,311</b>	<b>11,467</b>		

SAKAWAK  
CLIMATOLOGICAL SUMMARY YEAR 1959  
LATITUDE: 1° 29' N  
LONGITUDE: 110° 20' E

HEIGHT OF STATION 85 FEET A.M.S.L. STATION: KUCHING AIRPORT

	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL	Means or Extremes
Mean 0800 hours:	1012.3	1012.0	1011.3	1010.8	1009.4	1010.2	1010.5	1010.2	1010.9	1011.5	1010.5	1010.7	—	1010.9
Air pressure at M.S.L.														
Air Temperature in Degrees F														
Means of—														
"A" Maximum	84.3	86.8	88.0	89.1	89.2	88.6	89.2	89.3	87.8	87.9	87.7	87.1	—	87.9
"B" Minimum	72.9	73.2	71.8	72.3	73.7	72.8	72.1	72.2	71.7	72.7	72.1	72.1	—	72.5
Mean of "A" & "B"	78.6	80.0	79.9	80.7	81.5	80.7	80.7	80.7	79.7	80.3	79.9	79.6	—	80.2
Absolute Extremes:														
Highest maximum	89.4	91.2	91.3	93.1	92.4	93.4	93.1	93.0	92.8	91.6	91.9	90.6	—	93.4
Date	11	14	27	27	15	7	3	9	4	21	9	2	—	—
Lowest minimum	70.4	71.1	67.9	69.7	69.3	70.3	69.8	68.2	69.9	69.4	70.0	69.6	—	67.9
Date	17	4	3	6	12	4	27	12	13, 22	4	11	9	—	—
Lowest maximum	77.0	82.6	80.2	82.9	80.3	78.3	78.7	86.1	79.3	83.6	77.9	82.2	—	77.0
Date	7	3	26	25	7	25	20	27	25	22	21	1	—	—
Highest minimum	74.9	75.8	75.1	74.1	75.7	76.4	76.2	75.5	74.5	75.0	74.6	75.2	—	76.4
Date	4	9	9	2, 16	25	8	7	18	18	7	21	3	—	—
Rainfall:														
Total inches	34.40	3.92	16.44	11.97	10.32	8.68	8.20	4.47	8.45	8.61	8.57	15.74	139.77	—
Most in a day—														
Amount (inches)	5.29	1.19	4.64	1.66	2.99	2.09	3.04	1.52	2.49	1.77	1.15	2.96	—	5.29
Date	6	12	17	2	11	1	17	21	26	28	30	31	—	—
Number of days:														
Precipitation	29	21	16	24	21	19	20	13	18	21	21	23	246	—
Thunderstorm	10	3	11	11	9	5	13	9	12	10	8	3	104	—
Thunder heard	11	10	14	14	16	8	15	17	17	17	17	7	163	—
Fog	2	3	6	8	6	4	5	1	2	3	6	9	55	—
Gale	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bright sunshine:														
Total hours	101.40	118.05	182.05	163.65	166.05	153.70	194.15	183.40	137.55	122.95	136.15	151.10	—	150.85
Daily mean (hours)	3.27	4.22	5.87	5.45	5.36	5.12	6.26	5.92	4.59	3.97	4.54	4.87	—	4.95
Earth temperature °F:														
1 foot	81.8	83.3	83.1	84.2	84.9	84.6	84.6	84.7	83.3	83.1	82.4	82.7	—	83.5
4 feet	82.8	83.4	83.4	84.5	85.1	85.0	84.9	85.0	84.4	84.0	83.5	83.6	—	84.1



**SARAWAK**  
**CLIMATOLOGICAL SUMMARY YEAR 1959**  
**STATION: MIRI**

LATITUDE: 4° 23' N  
 LONGITUDE: 113° 59' E

HEIGHT OF STATION 10 FEET A.M.S.L.

	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL	Means or Extremes
Mean 0800 hours:	1012.3	1011.9	1011.3	1010.8	1009.4	1010.5	1010.5	1010.0	1010.8	1011.4	1010.3	1010.9	—	1010.8
Air pressure at M.S.L.	86.2 74.3	86.5 74.3	86.9 74.0	87.8 74.9	87.2 75.6	87.3 75.0	88.4 74.3	87.9 74.1	86.9 73.8	87.2 74.1	86.1 74.2	86.7 74.2	—	87.1 74.4
Air Temperature in Degrees F	80.3	80.4	80.5	81.3	81.4	81.1	81.3	81.0	80.3	80.7	80.1	80.5	—	80.7
Means of—														
"A" Maximum	89.4	90.2	90.2	91.2	91.2	92.3	91.2	91.0	90.0	90.1	88.8	90.2	—	92.3
"B" Minimum	20	7.18	7	27	2	6	15	24	11	9	19.21	13	—	—
Absolute Extremes:														
Highest maximum	72.3	71.8	69.8	71.9	73.0	71.9	71.1	70.6	71.0	71.8	72.2	72.8	—	69.8
Lowest minimum	19.25	14	2.4	26	22	28	22	30	4	3	Sev	5.14	—	—
Lowest maximum	83.8	83.2	84.0	83.5	79.5	81.8	84.6	84.0	80.8	83.0	82.8	83.7	—	79.5
Highest minimum	77.3	76.5	78.3	77.3	78.0	76.9	77.3	76.2	75.5	77.0	76.6	75.8	—	78.3
Date	29	1	20	14	11	17	7	6.8	25.30	31	21	28	—	—
Rainfall:														
Total inches	2.20	2.03	4.23	3.88	8.28	23.61	6.53	5.91	10.37	15.01	17.71	13.95	113.71	—
Most in a day—														
Amount (inches)	1.11	1.50	1.63	1.14	2.18	9.15	1.38	2.00	2.00	2.48	2.62	2.41	—	9.15
Date	9	3	26	2	11	20	27	29	18	12	11	14	—	—
Number of days:														
Precipitation	8	10	16	13	17	17	15	10	19	22	19	20	187	—
Thunderstorm	1	1	6	1	7	5	4	6	6	5	6	6	54	—
Thunder heard	5	4	12	13	21	10	8	16	8	12	11	8	128	—
Fog	1	1	—	—	—	—	—	—	—	—	—	—	2	—
Gale	—	—	—	—	—	—	1	—	—	—	1	—	2	—
Bright sunshine:														
Total hours	233.05	240.00	208.60	215.45	186.05	224.40	223.60	176.25	195.45	219.50	171.65	201.05	—	207.92
Daily mean (hours)	7.52	8.57	6.73	7.18	6.00	7.48	7.21	5.69	6.51	7.08	5.72	6.49	—	6.85
Earth temperature °F:														
1 foot	83.4	85.8	85.7	85.8	85.5	84.7	84.8	84.9	84.1	84.2	82.9	83.5	—	84.6
4 feet	84.8	85.8	86.6	86.5	86.7	86.3	85.8	86.3	86.0	85.5	84.9	84.9	—	85.8

## APPENDIX E

## GOVERNOR AND COMMANDER-IN-CHIEF

Sir Anthony Foster Abell, K.C.M.G.

## MEMBERS OF SUPREME COUNCIL AT THE END OF 1959

- The Hon. the Chief Secretary (Mr. A. R. Snelus, *acting*)  
 „ the Attorney-General (Mr. P. E. H. Pike, Q.C.)  
 „ the Financial Secretary (Mr. B. A. St. J. Hepburn)  
 „ Abang Haji Mustapha bin Abang Haji Moasili, C.B.E.  
 (Datu Bandar)  
 „ Abang Haji Abdul Razak  
 „ Mr. Bangau anak Renang  
 „ Mr. Khoo Peng Loong, O.B.E.  
 „ Mr. Ong Kee Hui  
 „ Mr. William Tan Ho Choon

## MEMBERS OF COUNCIL NEGRI AT THE END OF 1959

*President:*

- The Hon. the Chief Secretary (Mr. A. R. Snelus, *acting*)

*Ex-officio Members:*

- The Hon. the Attorney-General (Mr. P. E. H. Pike, Q.C.)  
 „ the Financial Secretary (Mr. B. A. St. J. Hepburn)  
 „ the Resident, First Division (Mr. D. L. Bruen, *acting*)  
 „ the Resident, Second Division (Mr. A. J. N. Richards)  
 „ the Resident, Third Division (Mr. A. F. R. Griffin)  
 „ the Resident, Fourth Division (Mr. J. C. B. Fisher,  
 O.B.E.)  
 „ the Resident, Fifth Division (Mr. M. J. Forster)  
 „ the Director of Education (Mr. M. G. Dickson)  
 „ the Director of Public Works (Mr. J. K. Wardzala)  
 „ the Director of Agriculture (Mr. J. Cook)  
 „ the Director of Medical Services (Dr. R. Dickie, *acting*)  
 „ the Deputy Chief Secretary (Mr. F. B. K. Drake,  
 M.B.E.)  
 „ the Development Secretary (Mr. A. R. G. Morrison,  
*acting*)

*Elected Members:*

- The Hon. Abang Haji Abdul Razak  
 „ Mr. Bangau anak Renang  
 „ Mr. Chan Yong Khow  
 „ Mr. Chang Ta Kang  
 „ Mr. Chia Chin Shin  
 „ Orang Kaya Pemancha Dukau  
 „ Inche Habibullah bin Majid  
 „ Temenggong Jugah anak Barieng  
 „ Mr. Khoo Peng Loong, O.B.E.  
 „ Mr. Kueh Yong Kwang  
 „ Mr. Ling Beng Siew  
 „ Mr. Mohamed Atahar Khan  
 „ Pengarah Montegrai anak Tugang  
 „ Tua Kampong Muip bin Tabib  
 „ Mr. Ong Guan Cheng  
 „ Mr. Ong Kee Hui  
 „ Temenggong Oyong Lawai Jau, M.B.E.  
 „ Haji Su'ut bin Tahir  
 „ Mr. Tiong Siew King  
 „ Mr. Umpi Rantai  
 „ Mr. Yeo Cheng Hoe  
 „ Mr. Stephen Yong Kuet Tze  
 „ Haji Zainal Abidin bin Haji Taib  
 „ Datu Abang Haji Zin, M.B.E.

*Nominated Members:*

- The Hon. Abang Haji Mustapha bin Abang Haji Moasili, C.B.E.  
 (Datu Bandar)  
 „ Pengarah Banyang anak Janting  
 „ Captain D. R. Gribble  
 „ Mr. William Tan Ho Choon

*Standing Members:*

- The Hon. Datu Abang Haji Openg  
 „ Abang Haji Mustapha, B.E.M.

The first part of the report deals with the general situation of the country and the progress of the work of the Commission. It is followed by a detailed account of the work done during the year, and a summary of the results. The report is divided into several sections, each dealing with a different aspect of the work. The first section deals with the general situation of the country, and the second section deals with the progress of the work of the Commission. The third section deals with the work done during the year, and the fourth section deals with the results of the work. The report is a valuable document, and it is hoped that it will be of interest to all those who are concerned with the work of the Commission.

The Commission has the honor to acknowledge the assistance of the various departments of the Government, and the cooperation of the public. It is also pleased to note the interest and support of the people of the country. The Commission is confident that the work done during the year will be of great value to the country, and it is sure that the results will be of great benefit to the people.

# INDEX



**A**

- Abdul Rahman, Tunku, 7  
 Abell, Sir Anthony, 2, 119  
 Accountant-General, 2  
 Administration, 197-200  
 Agricultural Settlement, 36-39  
 Agriculture, 5, 52-68; School of, 64  
 Agriculture, Department of, 5,  
 15; Extension, 5, 63, 88; staff  
 training, 63-64; research, 5, 62;  
 rural education and propaganda,  
 64  
 Ainley, Sir John, 2, 117  
 Air Communications, 139-141;  
 aeradio, 150; airfields, 5, 136  
 Air Force, Royal, 43, 141, 159  
 Aliens, registration of, 125  
 Aluminium ore, see Bauxite  
 Animal Husbandry, 64-67  
 Antimony, 83  
 Archaeological discoveries,  
 see History  
 Archives, 186-187  
 Arrivals, 2  
 Art Club, Kuching, 184  
 Arts and Crafts, 183-186  
 Asia Foundation, 94, 104, 154, 169  
 Australia, 6, 61, 63, 64, 93, 99, 104,  
 153, 154

**B**

- Baird, Lt.-Col. C.J., 155  
 Baird, Dr. D.A., 2  
 Bako National Park, 76-77  
 Balai Ringin, 36, 47  
 Banking, 23  
 Bankruptcy, 113  
 Barlow, Sir John, 7  
 Batu Lintang Teacher Training  
 College, 90, 93, 95, 128  
 Bau, 82, 83  
 Bauxite, 26, 77, 79, 80  
 Bennett, R.A., 2  
 Benson, J.A.B., 3  
 Betong, 48  
 Bian Chiang Bank, 23  
 Bills of Sale, 114  
 Binatang, 48, 61, 132, 162  
 Bintulu, 49-50, 132  
 Birds, 193-194  
 Birds' Nests, edible, 172, 190  
 Bisayahs, 12  
 Blind Welfare, 104-105  
 Borneanisation, 6, 118  
 Borneo Airways, 5, 71, 139-140  
 Borneo Evangelical Mission, 140-  
 141  
 Borneo Literature Bureau, 94, 125  
 Boys' Home, 115, 116, 127-129

**B—contd.**

- British Council, 95-96, 186  
 British Military Administration, 182  
 Broadcasting, 153, 154, see also  
 Radio Sarawak  
 Brooke Dockyard, 15, 133-134  
 Brooke, Rajah Sir Charles, 181  
 Brooke, Rajah Sir Charles Vyner,  
 181, 182  
 Brooke, Rajah Sir James, 180-181  
 Browne, F., 2  
 Bruce-Merrie, Captain Douglas, 155  
 Brunei, 4, 25, 29, 77, 110, 166  
 Brunei Shell Petroleum Company,  
 140, 153  
 Building, materials, 82, 83; Works,  
 134  
 Buoys and Lights Department, 144  
 Businesses, registration of, 114

**C**

- Calouste Gulbenkian Foundation,  
 169, 175  
 Canada, 6, 93, 102, 119, 194  
 Cargo tonnage, 27, 28  
 Carson, M.P., 7  
 Census, 1947, 11, 12  
 Charcoal, see firewood and char-  
 coal  
 Chartered Bank, 23  
 Chief Justice, 2, 110, 111, 117  
 Chief Secretary, 2  
 Chinese, 11, 12, 14  
 Climate, 162-163  
 Coal, 83  
 Cockle, H., 2  
 Coconuts, 60; planting scheme, 5,  
 60  
 Coffee, 61  
 Colombo Plan, 6, 35, 63, 64, 93,  
 99, 102, 119, 153, 154,  
 Colonial Development and Welfare  
 Fund, grants from, 5, 93; re-  
 search schemes, 62  
 Colonial Timber Company, 71  
 Commerce, 24-30  
 Communism, 4  
 Community Development, 105, 178  
 Constabulary, 117-125; auxiliary,  
 123-124; buildings, 120; cere-  
 monial, establishment, recruit-  
 ment, 119; Commissioner's Cadets,  
 119, 120; General Orders, 120;  
 health and welfare, 121; Marine,  
 122; racial composition of, 118;  
 Radio Branch, 122-123; stores  
 and armoury, 123

C—*contd.*

Constitution, Sarawak, 198-200  
 Co-operative Development, 85-88;  
   Central Bank, 87  
 Copra, 25  
 Cost of living, 15  
 Council Negri, 3, 6, 118, 198, 199  
 Court of Appeal, 110, 111  
 Court, Supreme, 110, 112  
 Courts, Magistrates, 111; Native,  
   112; revenue of, 115  
 Crime, 124  
 Criminal Procedure Code, 111  
 Crops, minor, 60-62  
 Culture, 184-186  
 Curator's, honorary, 187  
 Currency, 23  
 Customary rights, 31, 32, 37  
 Customs tariff, 19, 30  
 Dutch, 74

## D

Debenture bonds, 19  
 Deeds, 113  
 Dental health, 102  
 Departures, 2  
 Development Finance Corporation,  
   19, 53, 59  
 Development Plan, 1959-63, 1, 3,  
   4, 5, 53, 57, 60, 99, 134, 139;  
   Fund, 4, 17  
 Diseases, 99-101; animal, 66-67  
 District Councils, 3  
 Divisional Advisory Councils, 198  
 Door tax, 21  
 Dowson, Brigadier A.H., 42  
 Duke of Edinburgh, H.R.H. Prince  
   Philip, 1, 2, 117, 119, 152  
 Dunn, A.J.J., Mr. and Mrs., 96  
 Dusuns, 12

## E

Economic schemes, 4, 5  
 Economic Secretary, 2  
 Economic situation, 4  
 Economy, general, 24  
 Education, 6, 89-96; adult, 94;  
   finance of, 96; primary, 89-91;  
   secondary, 91, 92; technical and  
   commercial, 94; overseas, 94  
 Education Department, 125  
 Elections, 1, 3  
 Electricity, 136-138, and see Sarawak  
   Electricity Supply Company  
 Emigrants, 13  
 Engkabang, see Illipe nuts

E—*contd.*

Entertainments tax, 21  
 Estate duty, 21-22  
 Estates, administration of, 112-113;  
   lunatic persons, 113; trust, 114  
 Europeans, 11  
 Everett, A.H., 171  
 Examinations, schools, public, 92  
 Excise duty, 19, 30  
 Expenditure, public, 18  
 Exports, 24, 25-26

## F

Fauna, 190-196  
 Fees, miscellaneous, 20-21  
 Fernyhough, E., 7  
 Field, Mr., 2  
 Field Force, 121-122; reserve, 124,  
   155  
 Finance, public, 17-22  
 Firewood and charcoal industries,  
   74-75  
 Fish, 195-196  
 Fisheries, freshwater, 5, 67-68  
 Flora, 188-190  
 Foodstuffs, prices of, 27  
 Forest Department, 50, 190; policy  
   and administration, 70-71; re-  
   search, 75-76; working plans, 72  
 Forest Research Institute, Malaya,  
   76  
 Forestry, 68-77  
 Forests, constitution of permanent,  
   71-72; industries, 72-76; inven-  
   tories, 72; *kerangas* (heath), 69,  
   71, 76; peat swamp, 69, 71;  
   riparian, 69-70  
 Forests, Conservator of, 2  
 Forster, M.J., 3  
 Fraser, Dr. F.C., 193  
 Freeman, Dr. Derek, 187  
 Fruit, 61  
 Fulbright Foundation, 169, 186

## G

Gallant, M.N., 5, 73  
 Gammons (Malaya) Ltd., 135  
 Gas, 133  
 Gazette, Sarawak Government, 107,  
   111  
 Geddes, Dr. W. R., 187  
 Geography, 159-162  
 Geological Survey Department, 77,  
   167; geology, 164-168; economic,  
   166-167; mapping, 164-165; re-  
   search, 165-166; surveys, 81  
 Gibb, Hugh, 169, 173

**G—contd.**

Gladstone, Admiral Sir Gerald, 7  
 Glyn Evans, Dr. 2  
 Gold, 77, 82  
 Government Printer, 3  
 Governor, H.E. the, 1, 2, 3, 4, 100,  
 104, 169; powers of, 199  
 Gressit, Dr. Lindsay, 186  
 Gribble, Captain D.R., 3  
 Group headmasters, 93  
 Guano, see phosphate  
 Guides, Girl, 95

**H**

Haile, Dr. N.S., 187  
 Hales, R.E., 169  
 Harrisson, Mrs. B., 176, 187  
 Head tax, 21  
 Health, public, 96-103  
 Health Departments, municipal, 67  
 Heinze, Miss S., 128  
 Herbarium, 190  
 History, 169-182; pre-history, 169-  
 180  
 Hock Hua Bank, 23  
 Hongkong and Shanghai Bank, 23  
 Horn, C.B., 3  
 Hospitals, future developments,  
 103; Kuching, 98, 101, 103;  
 Mental, 102; Miri, 103; Sibuluan, 6,  
 98, 101  
 Hotine, Brigadier M., 42  
 Housing, loans, 19; low cost, 19;  
 see also Town Planning  
 Howes, Canon, 178  
 Hughes, Commander A., 193  
 Hull, General Sir Richard, 7  
 Hutchens, R.L., 7  
 Hydrographic Surveys, 144

**I**

Ibans, see Sea Dayaks  
 Illipe nuts, 26, 70, 75, 76  
 Immigrants, 13  
 Imports, 26, 27; livestock, 66  
 Income tax, 19, 20  
 Indigenous peoples, 11-13, 14  
 Industries, forest, 72-76; pioneer,  
 25  
 Information Office, 6, 152  
 Information Service, 64, 152, 153;  
 cinema unit, 126-127, 128  
 Insects, 196  
 Islam, 12

**J**

Jacks, H.P.K., 2  
 Jakeway, F.D., 2  
 James, F., 127  
 Japan, 5, 73, 83, 142  
 Japanese occupation, 182  
 Jelutong, 26, 69, 75  
 Johns, Lt.-Col. W. H., 42  
 Jones, Philip, 2, 152, 153  
 Justice, 110-117

**K**

Kapit, 48  
 Kayans, 12  
 Kedayans, 12  
 Kelabits, 12  
 Kenyahs, 12  
 King George VI Memorial Playing  
 Field, 2  
 Kuching, 46, 161, 162; Water  
 Board, 5, 130, 131  
 Kuching Municipal Council, 4,  
 125, 199  
 Kuek, Paul, 184  
 Krokop, 49  
 Kwong Lee Bank, 23

**L**

Labour, 14-16; Commissioner of  
 4; International conventions, 16  
 Land, 31-45; organisation of  
 tenure, 33; agricultural settle-  
 ment, 36; classification, 39; settle-  
 ment of rights, 39-40; application  
 for, 40; titles, 41; registration,  
 41; surveys, 41-42; mapping, 42;  
 valuation, 43-45  
 Land Code, 33, 34, 111  
 Land Dayaks, 11, 67  
 Lands and Surveys, Director of, 2,  
 33  
 Land Transport, 146-147  
 Lascelles, Mr. Justice D.R., 117  
 Lawas, 50; water supply, 133  
 Laws of Sarawak, Revised Edition  
 3, 106, 107  
 Legal Department, inservice train-  
 ing, 117  
 Leper settlement, see Rajah Sir  
 Charles Brooke Memorial Settle-  
 ment  
 Libraries, 94, 95, 186  
 Licences, miscellaneous, 20-21  
 Limbang, 38, 51, 162; water  
 supply, 133  
 Limited companies, 114

L—*contd.*

livestock, census of, 65; quarantine, 66  
 local authorities, 21, 49, 101, 197, 198; clinics, 98, 101, 102; schools, 89, 90  
 local government, 197, 198; Secretary for, 3  
 Lundu, water supply, 131  
 Lutong refinery, 25, 77, 80, 81

## M

Maddox, W.P., 7  
 malaria, 6; anti-malaria campaign, 96-97; anti-malaria headquarters, 97, 103  
 Malaya, 7, 56, 63, 105, 119, 153, 155  
 Malayan Airways, 5, 136, 139  
 Malays, 11, 12, 14  
 Mangrove swamps, 68-69  
 Marican Salleh, A.K., 187  
 Marine Department, 60, 94  
 Marketing Advisory Committee, 53  
 Marudi, 50  
 McLellan, David, 6, 92  
 McNichol, David, 7  
 Medical Department, 96, 101; new buildings, 102-103; staff and training, 97-99  
 Medical Services, Director of, 2  
 Medway, Lord, 174  
 Melanaus, 11, 12, 14  
 Mental health, 102  
 Merapok, 39  
 Mercury, 83  
 Mineral resources, 77  
 Mining, 5; areas, 79  
 Miri, 49, 61, 161; oilfield, 49; oilfield security force, 124; water supply, 132  
 Monazite, 84  
 Moneylenders, 115  
 Morison, Mrs. Lucy, 184  
 Morris, Dr. H.S., 187  
 Mukah, 87; water supply, 132  
 Mullins, Squadron Leader R.W., 141  
 Murray, C.B., 2, 35  
 Muruts, 12  
 Museum, British, 165, 166, 180, 193; Chicago Natural History, 196; Raffles, 173  
 Museum, Sarawak, 159, 171, 172, 173, 177, 178, 180, 184-187, 190, 191, 196; archives, 186, 187; excavations, 178, 179; journal, 176, 179, 187, 193

## N

Nautical School, 94  
 Navy, Royal, 7, 180; Royal Malayan, 7  
 New Zealand, 6, 35, 43, 44, 63, 64, 93, 153, 154  
 Newspapers and Periodicals, 202  
 Niah, 61; caves, 82, 169, 170-178, 193, 196; Lobang Tulang, 175-176; Painted Cave, 176; fauna, 190  
 Nield, H., 7  
 North Borneo, 87, 94, 110, 192  
 Nuffield Foundation, 94

## O

Oakley, Dr., 175  
 Occupations, 14  
 Oil, 77, 80-81  
 Oram, A.E., 7  
 Order-in-Council, Sarawak, North Borneo and Brunei (Courts), 110  
 Ordinances  
 Administration of Estates, 113  
 Anti-Corruption, 3, 108  
 Application of Laws, 110  
 Bills of Sale, 114  
 Business Names, 114  
 Companies, 114  
 Constitution, 198  
 Copyright (Repeal), 109  
 Courts, 111  
 Currency, 23  
 Hire Purchase Registration, 113  
 Income Tax, 19, 20  
 Kuching (Amendment of Boundaries), 107  
 Labour, 16  
 Local Authority, 197, 198  
 Miscellaneous Licences (Slaughter and Exportation of Cattle Regulations, 1957), 65  
 Native Courts, 112  
 Official Secrets (Repeal), 108  
 Pensions (Brunei and Sarawak (Administration Separation) Agreement, 1959) (Special Provisions), 109  
 Pioneer Industries (Encouragement), 25  
 Protection of Women, Young Persons and Children, 3, 108, 116  
 Public Rights of Way, 34, 108  
 Registration of Deeds, 113  
 Road Traffic, 125  
 Rubber, 54

**O—contd.**

- Ordinances—*contd.*  
 Sago Flour Control Export, 59,  
 60, 108  
 Societies, 125  
 Stamp, 19  
 Trade Licensing, 20  
 Water Supply (Amendment), 130  
 Outram, A.N., 119  
 Overseas Chinese Banking Corpora-  
 tion, 23

**P**

- Party Negara, 4  
 Patents, 114  
 Patterson, Dr. T.T., 175  
 Peat swamps, 137; forest, 69, 71  
 Peel, W.J., 7  
 Penans, 12  
 Pepper, 14, 26, 58-59, agronomy,  
 62-63  
 Peterson, Avery, 7  
 Petroleum, 25  
 Philippines, 63-64  
 Phosphate (guano), 82, 172  
 Pioneer Industries, 25  
 Plant pathology, 62  
 Police, building scheme, 120;  
 farm, 121; Training School, 120,  
 see also Constabulary  
 Population, 11-13; figures, 12  
 Port Area, new, see Tanah Puteh  
 Post Office Savings Bank, 23  
 Postal Services, 151  
 Posts and Telegraphs Department,  
 150  
 Press, 152-153  
 Prisons, 125-127  
 Probate and Administration, 112-113  
 Probation, Section, 115-116;  
 officer, 116, 129  
 Products, minor industrial, 25  
 Publications, official, 203-204;  
 books, 205-206  
 Public Debt, 19  
 Public Works Department, 15, 57,  
 101, 122, 123, 133

**R**

- Radio Sarawak, 64, 153-154  
 Rajah Sir Charles Brooke Memo-  
 rial Settlement, 100, 184  
 Rating, local authority, 3  
 Revenue, public, 17; customs, 29;  
 excise, 30  
 Rice, 56-58; agronomy, 62

**R—contd.**

- Roads, 145-146, Sarikei/Binatang  
 38; Lawas/Trusan, 38; Serian,  
 Simanggang, 47, 72, 83, 145  
 Rotary Club, 105  
 Royal Dutch Shell Group, 77, 81,  
 165, 166, 169  
 Rubber, 14, 26, 54-56  
 Rubber Planting Scheme, 5, 53, 54,  
 56; Sibiew block, 38, 49  
 Rubber Research Institute, Malaya  
 56, 63  
 Russell, R.T., 2, 35

**S**

- Sago, 12, 14, 25, 59-60  
 Salvation Army, 127; Girls' Home  
 104  
 Samarahan Estate, 36, 56, 64  
 Sambas Treasure, 180  
 Sandys, Duncan, 7  
 Sanitation, 101  
 Santubong, water supply, 131  
 Saratok, 48  
 Sarawak, cession of, 182, 199  
 Sarawak Electricity Supply Com-  
 pany, 6, 15, 19, 136-138  
 Sarawak Rangers, 155  
 Sarawak Shell Oilfields, Ltd., 3, 14,  
 15, 49, 79, 81, 95, 136, 140,  
 146, 153, 164, 172  
 Sarawak Steamship Company, Ltd.  
 143  
 Sarawak United People's Party, 4  
 Sarikei, 59, 61, 162; water supply,  
 132  
 Schools Broadcasting Service, 93,  
 154  
 Scott, Sir Robert, 7, 169  
 Scouts, boy, 95  
 Sea Dayaks (Ibans), 11, 14  
 Seal, John, 187  
 Sebuyau, 48  
 Sematan Bauxite Ltd., 26, 79  
 Serian, 47  
 Shaw, G.A.T., 3  
 Sibu, 48, 61, 161; water board,  
 130-131, 132  
 Silviculture, 72  
 Simanggang, 162, water supply,  
 131  
 Singapore, 105, 142  
 Sino-British Fellowship Trust, 11  
 Smythies, B.E., 3, 187, 193  
 Snelus, A.R., 169  
 Social Welfare, 103-105; lotter-  
 104; staff, 104

S—*contd.*

ocial Welfare Council, 103, 104, 105, 116, 117; blind fund committee, 104, 105  
ocieties, registration of, 125  
ocio-economic studies, 187  
olheim, Dr. William, 176, 186  
oils, surveys, 36; science, 62  
outh, George, 187  
tamp duty, 19  
tone and gravel, 82, 83  
upreme Council, 1, 3, 198, 199; constitution of, 199  
urveys, Directorate of Military, 42; Directorate of Overseas, 42, 43

## T

an, The Hon. Mr. William, 128  
anah Puteh, new port, 46, 135; access road, 146  
anjong Mani, 141, 143  
axation, customary, 21  
eacher Training Centre, SibU, 93, 96  
eacher Training College, Batu Lintang (see Batu Lintang)  
ebekang, 47  
echnical training, government, 15  
elecommunications, 148-151  
elegraph service, 149-150  
elephone service, 148-149  
eo Boon Kwei, 152  
ompson, J.H., 107  
ien, Dr., 187  
mber, 5, 14, 26, 69, 70; exports, 74; industry, 73-74  
obacco, 25, 61-62  
own Planning, 45-51; First Division, 46-47; Second Division, 47-48; Third Division, 48-49; Fourth Division, 49-50; Fifth Division, 50-51  
ade, composition of, 25; balance of, 28-29  
ade and Customs, Commissioner of, 2  
ade Licence Fees, 20  
ade marks, 114

T—*contd.*

Trade Unions, 4, 16  
Traffic, 124, 125; road accidents, 125; Safe Cycling Campaign, 125  
Traub, Lt.-Col. R., 186  
Tsing-chao Maa, Professor, 186  
Tuberculosis, 6, 99; Miri hospital for, 103  
Turnbull, Sir Roland, 7  
Turtles, 194-195  
Tweedie, Michael, 173

## U

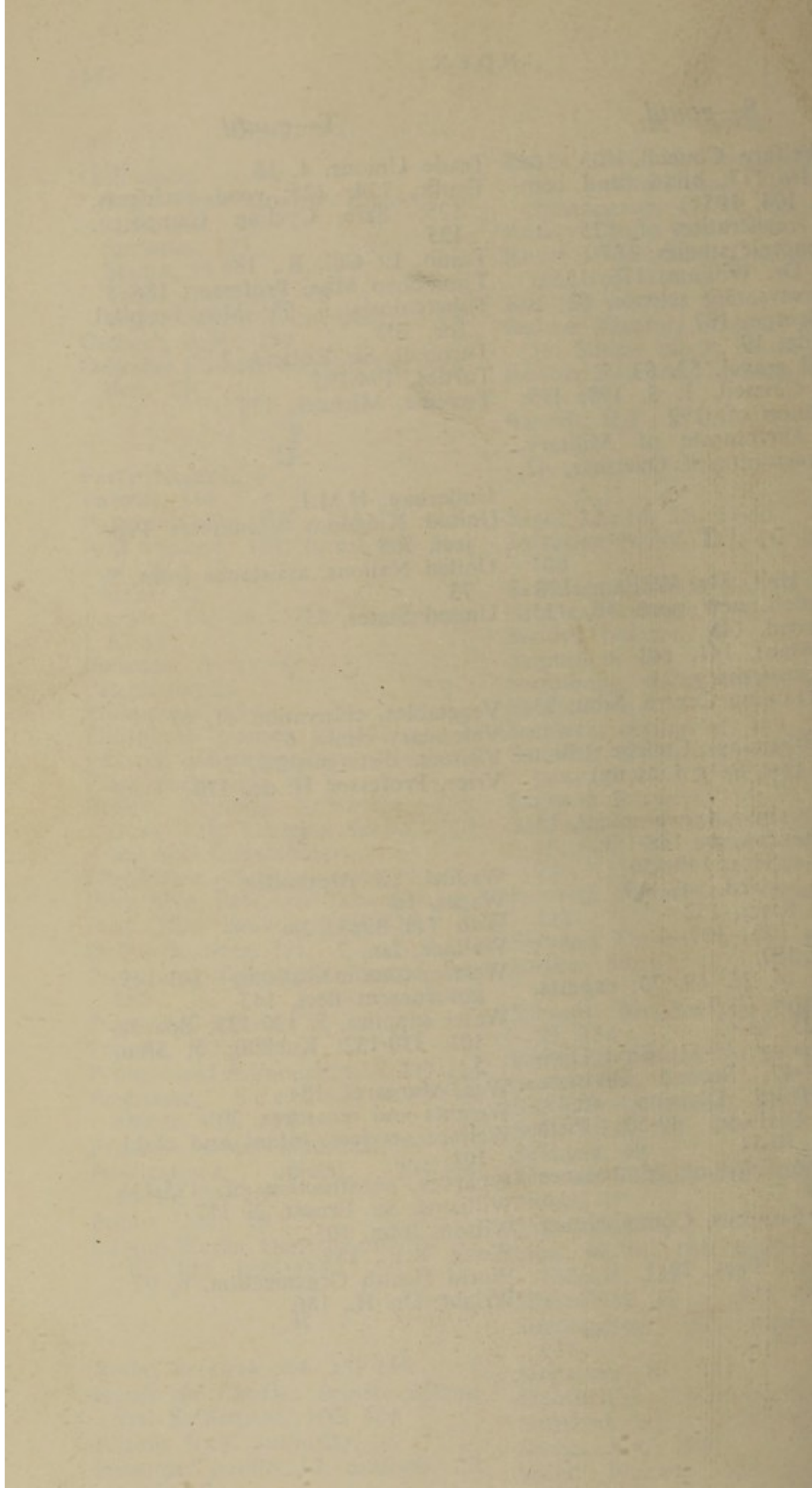
Underhay, H.M.J., 2  
United Kingdom Volunteers Project, 105  
United Nations, assistance from, 5, 73  
United States, 75

## V

Vegetables, cultivation of, 61  
Veterinary clinic, 67  
Visitors, distinguished, 7  
Vries, Professor H. de, 170

## W

Waddel, Sir Alexander, 2  
Wages, 16  
Wah Tat Bank, 23  
Wallace, Ian, 7  
Water communications, 141-145; government fleet, 143  
Water supplies, 5, 130-133; Boards, 101, 130-132; Kuching, 5; SibU, 5  
Wee, Margaret, 184  
Weights and measures, 201  
Welfare services, infant and child, 101  
Wharves, construction of, 135-136  
Williams, Sir Ernest, 2, 117  
Wilson, John, 105  
Wong, K.F., 187  
World Health Organisation, 6, 97  
Wright, Dr. H., 186



# SARAWAK

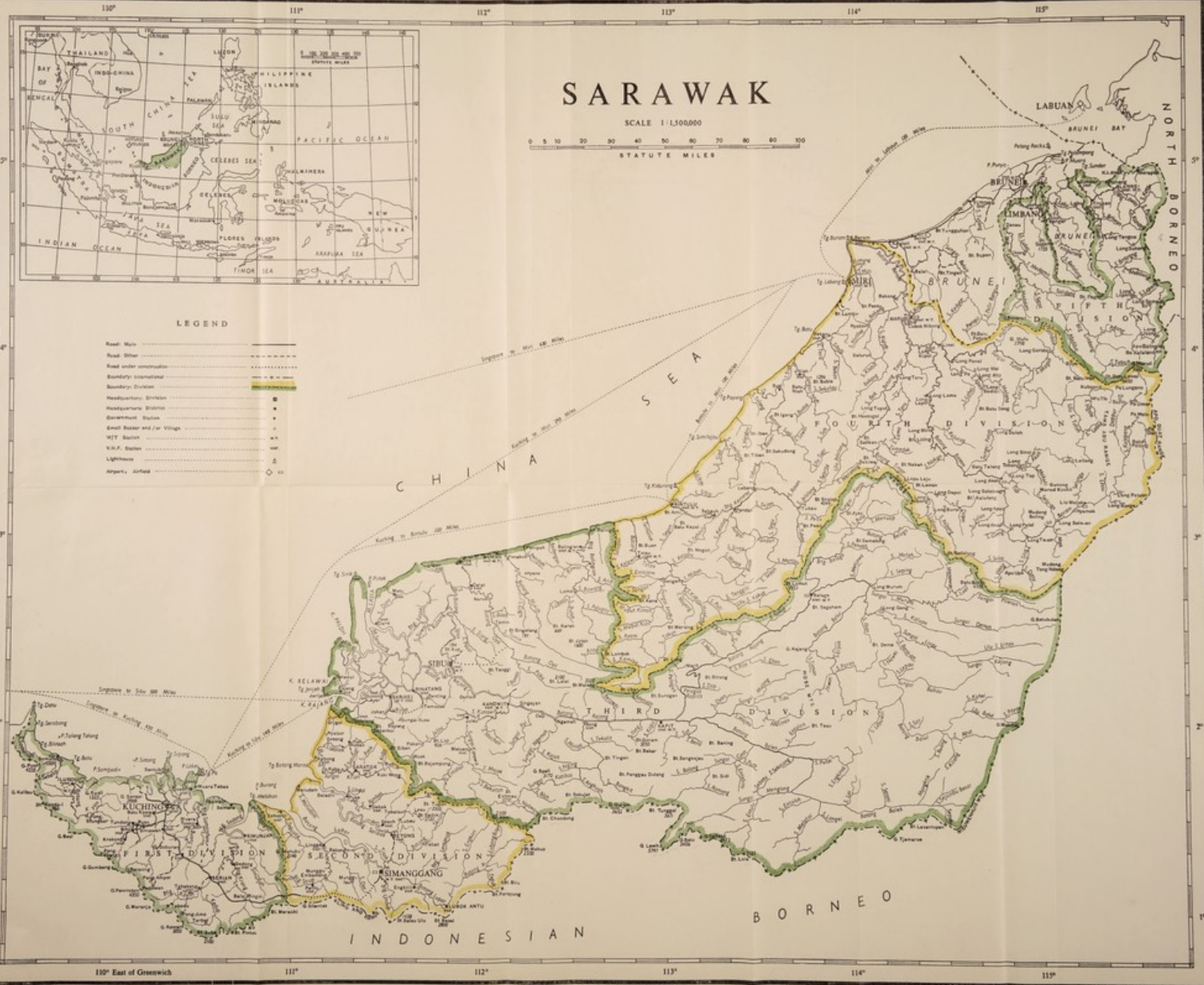
SCALE 1:1,500,000

0 5 10 20 30 40 50 60 70 80 90 100  
STATUTE MILES



### LEGEND

- Road Main
- Road Other
- Road under construction
- Boundary International
- Boundary Division
- Headquarters Division
- Headquarters Station
- Subordinate Station
- Small Station and/or Village
- W.T. Station
- V.A.F. Station
- Lighthouse
- Airport, airtail



Scale: Series No. 11  
Compiled and drawn by Land & Survey Dept., Sarawak 1960

MAP PROJECTION: RECTIFIED MERIDIAN ORTHOGRAPHIC

Government Copyright is Reserved





