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MIRI - BINTULU REGIONAL PLANNING STUDY

ASSOCIATION PAPER

PRESENT STATE • CHARACTERISTICS
OF THE STUDY AREA

— JANUARY 1973 —

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C O N T E N T S

PRESENT STATE CHARACTERISTICS OF THE STUDY AREA

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P R E S E N T S T A T E
C H A R A C T E R I S T I C S O F T H E S T U D Y A R E A
C H A P T E R 1

INTRODUCTION

The purpose of this Interim Report is to give a survey of important aspects of economic relations in Sarawak and the Study Area. The material will be the basis for planning calculations and considerations presented in other papers and reports, which could, therefore, in turn concentrate attention more on the future and less on the past and present time. It has been attempted to relate the presented information to the year 1970, and to a certain extent to describe previous development up to this year.

Major sources of information have been official statistics, public reports and information collected from public agencies and private enterprises and persons. To some extent the report will repeat data which are already known. However, it has been the primary purpose to bring the material up to date (that is 1970) and to present it in a way which is suitable for planning.

It is hoped that readers will respond by sending us corrections and amendments so that our planning basis can become as complete as possible.

NATURAL RESOURCES

2.1 GEOGRAPHY

2.1.1 Location

The Study Area extends roughly from longitude 113 degrees east to 114 degrees 38 minutes east and latitude 3 degrees north to 4 degrees 36 minutes north of the equator. It is about 130 miles long on a line drawn direct from the Brunei border near Kuala Baram to Bintulu and 60 miles wide at the widest point from Kuala Niah on the coast to Long Pila on the Batang Baram. The total area is 3.5 million acres or 37 per cent of the Fourth Division.

2.1.2 Physiography

The present nature of the physiography results from the geologically very recent uplift that occurred during the early and middle Pleistocene period; the erosion cycle initiated at this time is active at the present and is still at a relatively young stage. Therefore, terrain forms are characterised by intense dissection and generally steep slopes, the higher hills and steeper slopes occurring in the south-east of the area where uplift was greatest, and the lower hills and gentler slopes of the more mature topography in the north-west where uplift was least. Areas of locally greater than average uplift occur as, for example, in the Lambir hills. Associated with this general uplift was movement along certain anticlinal areas, imparting a north-east to south-west trend in much of the area.

Oscillations in sea level during the Pleistocene have given rise to the formation of raised terraces on the coast and along rivers and the inland edges of the large alluvial flats. At the end of the Pleistocene period, the sea level was rather higher than at present, and many of the river valleys were flooded, with marine or estuarine conditions existing south along the Baram to at least Marudi, and probably further south. The gradual lowering of sea level to its present level allowed extensive areas of alluvium to be deposited as deltaic deposits in the Baram, and as semi-lagoonal deposits along the coast behind beach strand-lines as, for example, between the Sibuti and Nyalau rivers. Due to the poor drainage of these areas, considerable depths of organic deposits have

accumulated rapidly over much of the alluvial flats.

The Study Area can be divided into the following broad physiographic units:-

a) Alluvial flats and terraces: these areas provide the only significant areas of flat or very gently sloping land, the major area occurring in the lower Baram-Tinjar drainage system, and the coastal flats associated with the lower sections of the Sibuti, Niah, Suai and Nyalau rivers. Much of this flat land is covered by variable depths of peat. Terraces occupy only small areas, and are generally rather eroded, so that actual areas of flat or very gently sloping land are limited.

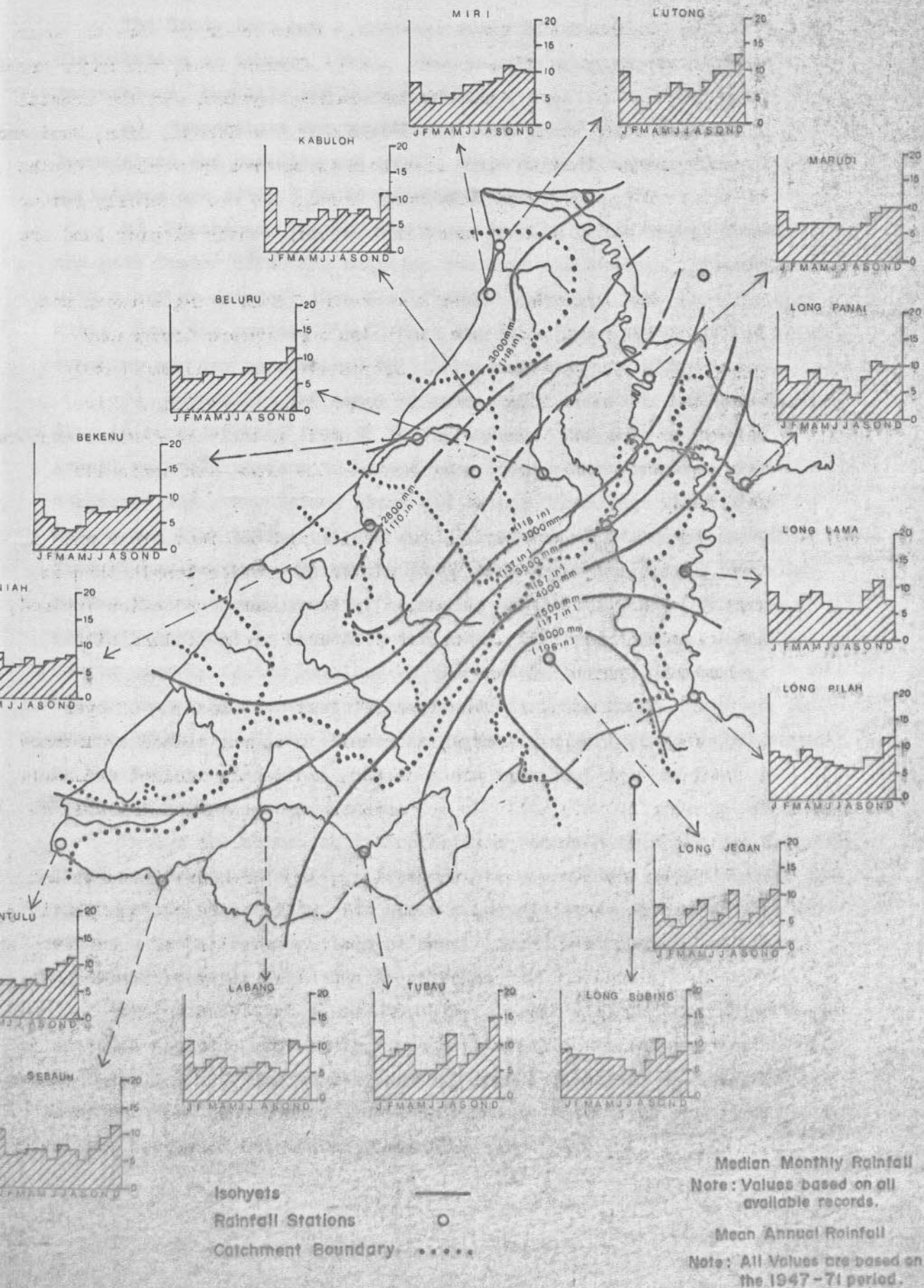
b) The lowlands: these are areas of land lying between sea level and 300 feet, associated with the more mature topography described in the above section. Slopes are short and moderately steep and the terrain is generally undulating to rolling. River valleys are narrow, but not incised except in their head-water reaches. This unit contains a high percentage of the land with agricultural potential.

c) The uplands: lying between 300 and 600 feet, this unit is more highly dissected, with steep slopes of greater length than in unit (a). River valleys are generally very narrow and often incised, and the terrain is hilly. Only very limited areas of land with agricultural potential exist.

d) Highlands: ranging from 600 feet to a maximum of over 4 000 feet in the Dulit range, this unit is characterised by intense dissection with long very steep slopes, and deeply incised drainage. The terrain is very hilly to mountainous, and contains virtually no land with agricultural potential.

There are two major river systems, the Baram in the north and the Kemena in the south and a number of smaller rivers; the Sibuti, Niah, Suai and Similajau. These rivers are important as they have been the traditional transport lines and still carry a considerable human and goods traffic. The Baram, which is second in size in Sarawak only to the Batang Rajang, has numerous rapids and gorges in its upper and middle courses, making navigation difficult and reduces its value as a means of communication. Most rivers are subject to flash flooding, particularly in their middle and upper reaches, which

DIAN RAINFALL AS PERCENTAGE OF MEAN ANNUAL RAINFALL



poses problems for the development of their associated alluvium.

2.1.3 Climate

The Study Area has a Tropical rainy climate (Sub-class Af in the distribution of Koppen; 1916). This is characterised by constant temperature, humidity and high rainfall.

a) Temperature and humidity: mean annual variations of temperature and humidity are small, while diurnal temperature variations are often 5 to 10 degrees (Fahrenheit).

b) Sunshine: because the Study Area is close to the equator the main factor affecting sunshine hours is the weather. Bintulu, with a higher rainfall than Miri, has considerably less sunshine than Miri. Over the period 1959-68 Miri had an annual average of 6.7 hours sunshine per day as compared to 5.8 hours per day in Bintulu.

c) Rainfall: the range of mean annual rainfall over the Study Area is considerable; from 98 to 196 inches. The area of lowest annual rainfall appears to extend in a tongue southward from the swamps of the lower Batang Baram and Batang Bakas into the middle Sibuti and Niah basins (Figure 2.1). The area of highest rainfall lies at the eastern edge of the Study Area where the Batang Baram and Batang Tinjar emerge from the highlands of the interior. The main rainfall gradient is thus from the coast, at first falling, and then rising steeply to the highland on the eastern margin. It would appear that a gradient exists southward along the coast, although the nature of this gradient between Kuala Niah and Bintulu is undocumented by any data so that the location of the isohyets over the Suai and Similajau basins is speculative.

Though the common assertion is that rainfall is heavy and frequent, there appears to be a slight tendency for areas with lower rainfall to show greater variability. It would be deceptive to assume that no dry season exists. However, like so many climate generalisations, this statement conceals more than it reveals.

The only feature of the monthly rainfall distribution which seems to apply almost to the whole Study Area is that the wettest months tend to fall in the period October-January and particularly in the last two months. This is the time immediately before and during the early weeks of the northeast monsoon or "landas".

There is, however, very little uniformity over the Study Area in the monthly rainfall distribution. For the convenience of differentiating areas with different monthly rainfall characteristics, the Study Area may be divided into four sub-areas, namely Coastal, Kemena, Lower Baram and Interior.

In the coastal area, the driest month follows more or less immediately after the wettest period, thus falling usually in February or March. Thereafter there is a gradual build-up to the next peak period. In some localities secondary peaks may occur when local conditions encourage increased convection activity during the slack-wind period between the northeast and south monsoons. An example of this may be Niah. In other coastal localities suitably exposed to the south, a secondary peak may arise during the south monsoon period from the shifting opposition between the sea breeze and monsoon air flow.

In the Kemena area, running in from Bintulu at the coast to Tubau, the driest month appears to occur later in the year than in the coastal area to the north, although Bintulu itself still has a distribution fairly similar to the Coastal one. The stations further up the Kemena river show various secondary peaks, notably in April at Labang and Tubau, barely noticeable at Sebauh. This intermonsoon peak, probably due to straight convection, is more commonly developed inland and inhibited near the coast by the sea breeze which also penetrates further up the Kemena valley than it does over adjacent land areas. Another secondary peak occurs around August during the south monsoon period. The reason is obscure but may be related to details of local topography and exposure, and the orientation of the main river valley.

In the lower Baram area, the distribution between peak periods is relatively even, possibly dictated by the absence of local relief. Beluru, on the edge of the flat swamp forest area, shows slight tendencies to have intermonsoon secondary peaks.

In the interior region, the area of greatest relief, local topography becomes dominant and the distribution is very irregular. Intermonsoon peaks tend to be marked, and the main peak appears to be in October-November before the onset of the northeast monsoon air flow.

2.2 LAND USE

Fourth Division covers 9.5 mn acres out of which 3.5 mn acres, or 37 per cent, are inside the Study Area. 86 per cent of Fourth Division is under swamp and hill forests. The hill forests cover about 86 per cent of the 8.2 mn acres of forest land in Fourth Division.

Table 2.1 presents the results of a planimetric measurement of land use classes in the Study Area (including the Lambir-Subis Development Area) using the Sarawak Land Use Map Series No. 22, printed in 1968. The table shows that about one-fifth of the land is, or has been, under cultivation of some type. Forest covers nearly 2.8 mn acres or 79 per cent of the Study Area; of this acreage 75 per cent is hill forest. Settlements and non-agricultural land uses take up almost two per cent of Study Area. A further breakdown of the figures in Table 2.1 is given in Appendix I.1.

TABLE 2.1 LAND USE CATEGORIES WITHIN PLANNING UNITS⁽¹⁾

Planning Unit	Forest land	Agricultural land	Urban Settlements, Non-agricultural and Unproductive lands	Total acres
Baram	1 027 484	278 017	9 499	1 315 000
Bintulu	714 448	245 610	30 942	991 000
Miri	1 040 255	193 173	13 072	1 246 500
Study Area	2 782 187	716 800	53 513	3 522 500

Note (1) The planning units are derived from a division of the Study Area into units for planning purposes. The delineation of the planning units is fully explained in the interim report "Development Strategies".

The percentage distribution of the forest, agricultural and non-agricultural uses of land in the Study Area is indicated in Table 2.2. Further details are given in Appendix Table I.3. Of the three planning units, Miri has the largest acreage of hill forest (806 000 acres) compared with 639 000 and 635 000 acres for Bintulu and Baram planning units respectively. But the future agricultural development potential within the hill forest areas lies mainly within the Miri and Bintulu planning

units. At present large areas of hill forest land, which appear to have a potential for agricultural development, are still under Forest Reserves, Protected Forests and Communal Forests. A total of 1 328 000 acres of the Study Area is still gazetted under the above categories of forests. This acreage includes both hill and swamp forests.

TABLE 2.2 LAND USE TYPE AS PERCENTAGE OF TOTAL PLANNING UNIT

Planning Unit	Forest land	Agricultural land	Urban settlements, non-agricultural and unproductive lands	Total
Baram	78.1	21.1	0.8	100
Bintulu	72.1	24.8	3.1	100
Miri	83.5	15.5	1.0	100
Study Area	78.3	20.2	1.5	100

Not all the agricultural land is currently under some crop because about 495 000 acres of the total 716 800 are considered to be associated with the shifting cultivation of hill padi.

Wet padi cultivation and land suitable for such cultivation lie mainly in the Baram and Miri planning units, concentrated in the planning sub-units Sibuti, Bakong and Marudi.

Market gardening areas are located near urban and semi-urban centres. A particular concentration of these areas is found around Miri, Bintulu, Marudi, Batu Niah and in the Lambir-Subis Scheme. Since the land use map was compiled some significant changes have taken place in the expansion of permanent agriculture, particularly oil palm growth in the Lambir-Subis Development Area where, in 1971, the area under this crop was 5 600 acres. Pepper acreages have also increased particularly among Dayak communities along the Miri-Bintulu road.

The pattern of agricultural land use is still predominantly one of small holdings, with only few farms over 10 acres. Commonwealth Development Corporation (CDC) and Sarawak Land Development Board (SLD) estates are exceptions. Yet the Iban system of individual land ownership in scattered holdings often results in some individuals owning

than 10 acres. The intensity of cultivation and land use depends on the type of crops grown. Chinese owned pepper and market gardening lands are the most intensively cultivated. Generally the intensity of cultivation of wet padi land is low and the cultural methods still primitive.

2.3 LAND TENURE

2.3.1 Land Tenure Classification

The land tenure system in Sarawak is quite complicated. Therefore, a short description of the different land tenure classes, of which there are five, is given below. The technical/legal details are explained fully in the relevant section of the Land Code 1957.

Under the Land Code 1957 the five recognised land tenure classes are as follows:-

a) Mixed Zone Land: is land which may be alienated to any person, irrespective of race and without any legal restrictions. It can be held by natives and non-natives under a mixed zone land title, or by Native under Customary Rights. Chinese and other non-natives may hold only this class of land.

Thus in an area gazetted as Mixed Zone Land it is possible to find land held under Mixed Zone title, land under Customary Rights and possibly Reserved Land, that is State Land, Land under Customary Rights in Mixed Zone areas stay as they are until the Rights are extinguished and a title is then issued; and in the case of Reserved Land, until the reservation is cancelled.

b) Native Area Land: is land which has been declared as such by the Governor in Council; it also includes land held in title by any native other than land within a Mixed Zone. Once an area is declared Native Area Land, the Interior Area Land and any unalienated Mixed Zone Land included in the declaration becomes Native Area Land, but Native Customary Land and Reserved Land within the gazetted Native Area Land remain as they are until extinguished or cancelled.

c) Native Customary Land: is land held by natives who have acquired that right through legal felling of primary forest for padi cultivation. As from 1st January, 1958 Native Customary Rights may only be created in accordance with the Native Customary Law of the community concerned by any of the recognised methods under sub-section 2 of Section 5 of the Land Code,

if a permit to fell jungle upon Interior Area Land is obtained. No recognition of Rights shall be given to any area of land cleared without a permit after the coming into force of the Land Code, that 1st January, 1958. Illegal occupation, therefore, creates no rights to the land; it is, however, generally difficult, if not impossible, to detect illegal felling in remote areas.

The difference between Native Customary Land and Mixed Zone Land or Native Area Land is that in the former the areas are not surveyed and no titles are issued. If titles are issued the land ceases to be Native Customary Land and instead it becomes either Mixed Zone Land or Native Area Land as described above.

d) Reserved Land: this category of land includes those under the following legal status:-

- i) Any land reserved to the State;
- ii) Land in National Parks, Forest Reserves, Protected Forests;
- iii) Government occupied land. No titles are issued for such land;
- iv) All other land declared as such.

e) Interior Area Land: is land not falling into any of the above categories.

2.3.2 Distribution of Land Tenure Classes

The percentage distribution of the land tenure classes by planning units is indicated in Table 2.3, which also shows the acreage of each respective tenure class.

The percentage distribution of the five land classes by planning units shows that Miri has the largest part of the Mixed Zone acreage while Baram takes the largest parts of the Native Area and Native Customary Land, as shown in Table 2.3.

Of the categories Mixed Zone, Native Area and Native Customary Land assessed as possibly suitable for agriculture it is estimated that 31, 63 and 53 per cent are respectively within Baram, Bintulu and Miri planning units. Using 1970 population census figures it can be calculated that the ratio between the number of rural inhabitants and the acreage of potential agricultural land is about 8.3 acres per head for Baram, 7.5 acres per head for Bintulu and 5.9 acres per head for Miri planning units. Assuming that 0.5 to 0.75 acre of land per

TABLE 2.3 LAND TENURE CLASS, PERCENTAGE DISTRIBUTION BY PLANNING UNIT AND FOR THE STUDY AREA

Planning Unit(1)	Mixed Zone		Native Area		Native Customary		Interior Area Land		Reserves	
	Acres	Per cent	Acres	Per cent	Acres	Per cent	Acres	Per cent	Acres	Per cent
Baram	35 000	18.9	150 000	71.1	428 800	52.1	390 200	41.1	311 000	25.3
Bintulu	17 700	9.6	25 000	11.9	233 900	28.4	256 800	27.1	457 600	37.3
Miri	132 450	71.5	35 850	17.0	160 700	19.5	302 000	31.8	459 000	37.4
Study Area(2)	185 150	5	210 850	6	823 400	23	949 000	27	1 228 100	34

Note (1) These are explained in the Interim Report on "Development Strategies" (December 1972)

(2) Excluding Lambir-Subis Scheme Area.

head of population is required annually, in shifting cultivation are then an average rotation period (fallow cycle) of around 10 to 12 years would be needed.

2.3.3 Problems Connected With Present Land Tenure System

The problems that have or are likely to arise in connection with the present land tenure system are briefly;

a) The restrictive nature of the land legislation with regard to land transactions between natives and non-natives has as its primary purpose the protection of present and future generations of natives against the consequences of selling their land and thus becoming landless. That this legislation has, to a certain extent, created land shortage among the non-native communities, has already been recognised by the Government, but so far no politically acceptable final solution to these problems has been found. The legislation, moreover, has not fully succeeded in preventing illegal transactions of land from natives to non-natives. Also there appears to be inadequate safeguards to protect the natives from being bought out by other natives. The efforts to modernise agriculture also in areas already under cultivation and to give priority to development within certain of these areas will accentuate the legal problems. To some extent these questions are dealt with in other papers by the Consultants.

b) Customary Rights to a piece of land can be forfeited when a family moves out from one Administrative Division to another. The land on which that family created Rights then becomes the communal property of the longhouse. The loss of land rights is likely to create problems particularly relevant to the would-be migrants from other Divisions to the Study Area, in particular it may be a strong disincentive for whole families or communities to move from their long settled areas.

2.4 NATURAL RESOURCES

The natural resources of the Study Area are important to most of the economic sectors. The weight of the sector product does not, however, necessarily reflect the availability of natural resources at

even then the relative importance might be limited, when employment possibilities and other social considerations should be accounted for.

An obvious illustration of this fact is the impact of the oil resources on the State economy while the local regional economy is not similarly affected.

The agricultural resources among others represent present and future extended job opportunities although the economic output per worker and per dollar invested might be smaller than in other sectors.

2.4.1 Agricultural Resources

The Zonation Plan has tentatively identified a total area of roughly 863 000 acres of land possibly suitable for agricultural development in the Study Area. The distribution of this area according to the land tenure aspect is given in Table 2.4 and in Figure 2.2.

TABLE 2.4 POSSIBLY SUITABLE AGRICULTURAL LAND

Land category ⁽¹⁾	Area in acres
State Land	370 000
Native Customary Land	451 000
Titled Land	42 000
Total	863 000

Note (1) See Appendix VI for the meaning of land categories and land tenure classes.

Much of this land is described in the Zonation Plan as "undulating, generally with slopes exceeding 12 degrees, and under the wet tropical climate of Sarawak, the land is not suitable for large scale arable agriculture. Nevertheless considerable agricultural potential exists mainly in perennial crops, for which the climate is suitable, with some arable cropping taking place on relatively small areas, mainly on non-peat swamps and on intensive small holdings close to urban areas."

Of the State Land roughly 65 000 acres is land which has been already logged of the presently marketable timber and is, therefore, available for settlement as soon as plans can be made ready. The remainder of this

category of land is mainly under virgin hill dipterocarp forest, much of it existing Forest Reserves and Protected Forest areas.

The vast majority of the Native Customary Land and Titled Land lies close to the rivers. This reflects the historical opening up of the country by people living close to the rivers which, until recently were the only means of communication in the area. This pattern of river-based development is clearly shown in Figure 2.3.

In the Native Customary Land, which at present is dominated by shifting cultivation of hill padi, and in the Titled Land agricultural potentials are existent. Yet some areas are too isolated to represent any important agricultural resource until access roads are constructed.

The present and potential crops that can be considered as being of major importance are oil palm, rubber, pepper and rice. Secondary or support crops and enterprises are tropical fruits and vegetables, some essential oil crops, coffee, pigs, poultry and pond fish culture. Crops which appear promising but still require commercial trials under local conditions are cocoa, tapioca, several spices and essential oil, lowland tea and anatto. Estimates of present day agricultural production and value of produce are given in Table 2.5.

TABLE 2.5 ESTIMATES OF PRESENT AGRICULTURAL AREAS AND YIELDS

Crop	Total area (acres)		Yield pounds per acre	Total production tons
	Producing area	Study Area		
Rice	Hill padi	22 000	1 300 (padi)	12 700
	Wet padi	16 500	1 900 (padi)	14 000
Rubber	High yielding	5 000	20 000 ⁽¹⁾	600
	Low yielding	5 000	15 000 ⁽²⁾	300
Pepper		600	760	4 000
				1 071
Livestock		Total numbers	Exports	Slaughtering
Cattle		1 000	-	50
Pigs	Commercial	10 000	1 500	11 000
	Ulu	12 000	-	4 400
Buffaloes		900	-	150
Poultry		230 000	175 000	113 000

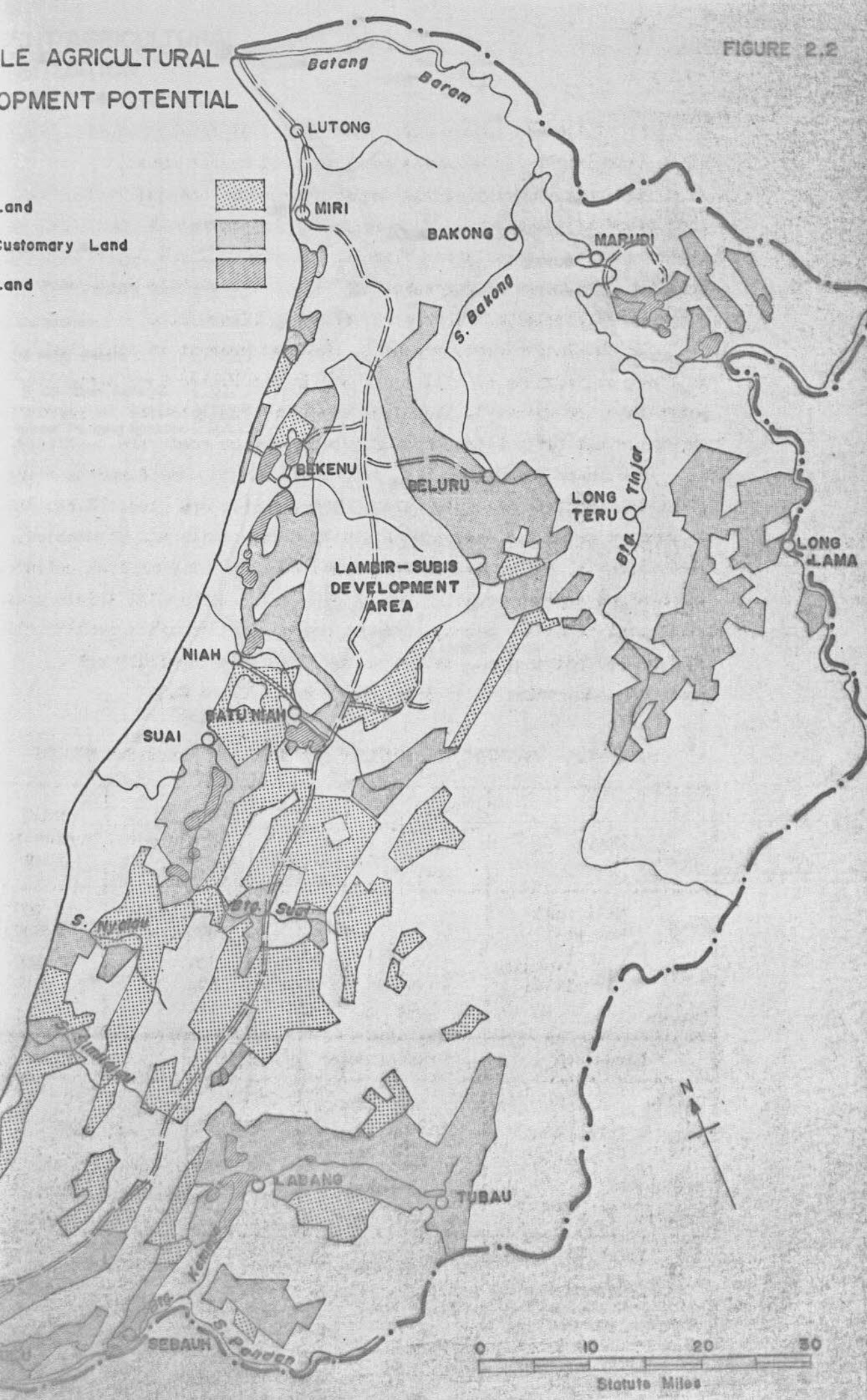
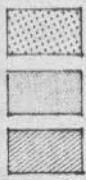
Note (1) Estimate 75 per cent untapped

(2) Estimate 50 per cent untapped







LE AGRICULTURAL
OPMENT POTENTIAL

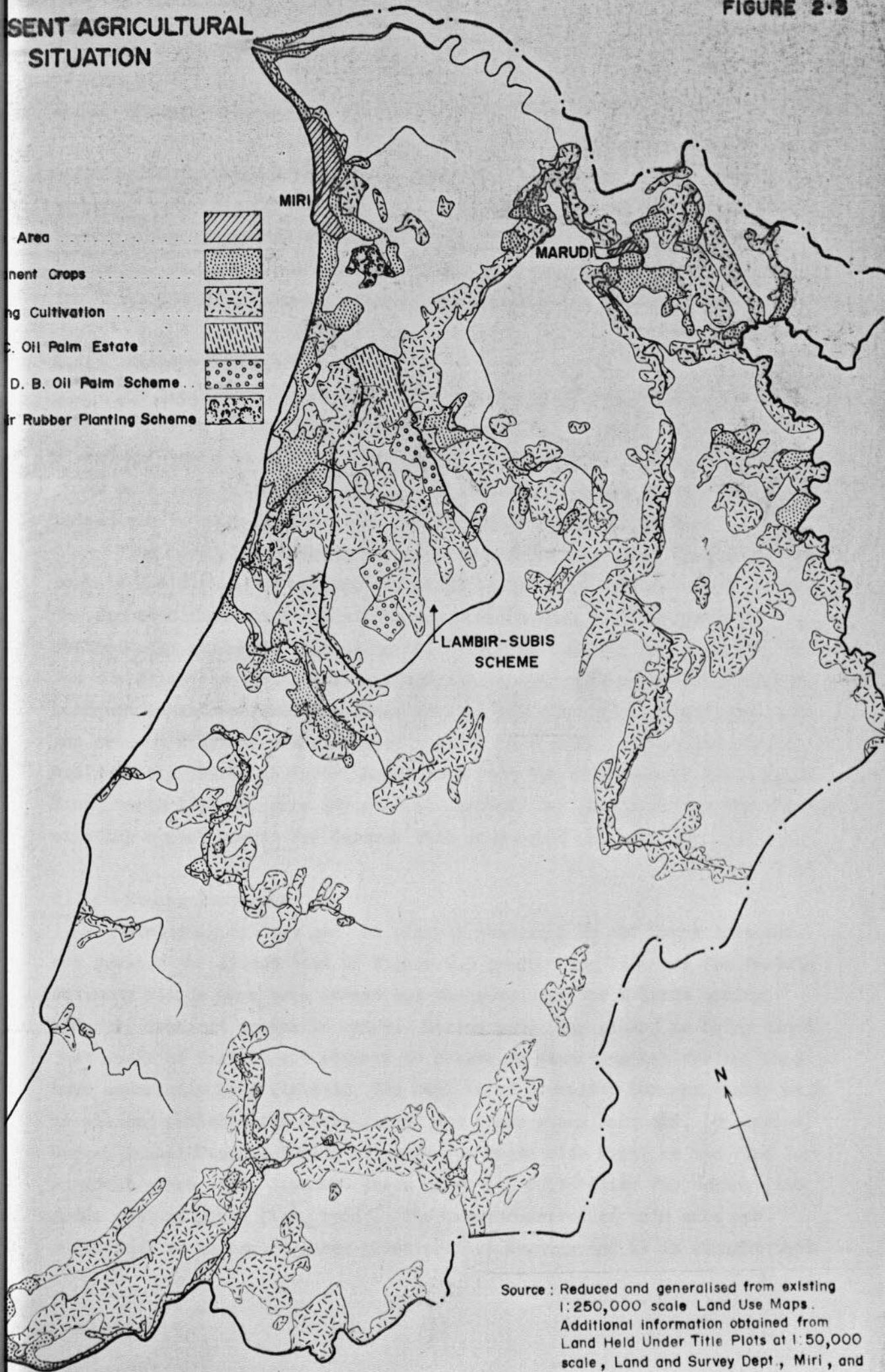
FIGURE 2.2

and
Customary Land
and



PRESENT AGRICULTURAL SITUATION

- Area 
- Permanent Crops 
- Shifting Cultivation 
- C. Oil Palm Estate 
- D. B. Oil Palm Scheme 
- Large Rubber Planting Scheme 



Source : Reduced and generalised from existing 1:250,000 scale Land Use Maps. Additional information obtained from Land Held Under Title Plots at 1:50,000 scale, Land and Survey Dept., Miri, and 1963-72 aerial photographs.

2.4.2 Forest Resources

The forestry potential of the Study Area is still vast despite large areas having already been logged. There are still huge areas, some 1.48 million acres of unexploited swamp and hill forest. For most of the virgin hill forest areas, plans are being made to exploit them such that they will become the permanent base for several large timber industrial complexes. The distribution of these forest categories is shown in Figure 2.4.

2.4.3 Fishery Resources

The freshwater fisheries have considerable possibilities, provided that no adverse environmental effect disturbs the delicate balance of the rivers and their catchment. The culture of freshwater fish species in ponds is a long established practice in Sarawak, and the natural and human potentials in this specific industry should be fully utilised.

"The coastal fishery in north Sarawak is not yet well developed; both markets and fishing techniques are still on rather a small scale." However, the expected fish resources of the South China Sea, although not yet sufficiently explored, "should be sufficient to consider establishing fish and shellfish canning/freezing industries on the coast of the Study Area". Resource inventory should be undertaken as reliable data are not available and present statistics are only of limited importance. "Such industries would partly fulfil an import substitute role (in 1970 about 2 400 tons of fish, worth \$2.7 million, were imported to Sarawak) and partly extend the already existing export market for Sarawak fish products."

2.4.4 Mining Resources

"Excluding oil and gas the mineral resources in the Study Area are not great. As illustrated in Figure 2.5 prospecting licences for certain antimony fields have been issued but the potential for a large mining industry does not appear to exist. Silica sand (for glass) is being mined just north of Bintulu but efforts to create an export market for the sand have apparently been limited. The sand is of a quality (exceptionally high in silica) suitable for sheet-glass" and other glass products, (Geological Survey Annual Report, 1964), although the grain size might be too fine for an ideal glass sand, Japanese tests prove its suitability for making fine grade optical glass (Kho, 1968). The known reserves of this sand are sufficient to warrant a large glass product factory and it is thought that

the present domestic market for glass products would probably make the establishment of a glass-plant a reasonable proposition.

The presence of limestone near Long Lama and the existence of other necessary raw materials for cement production together with the natural gas give the resource basis for a cement plant near Kuala Ba

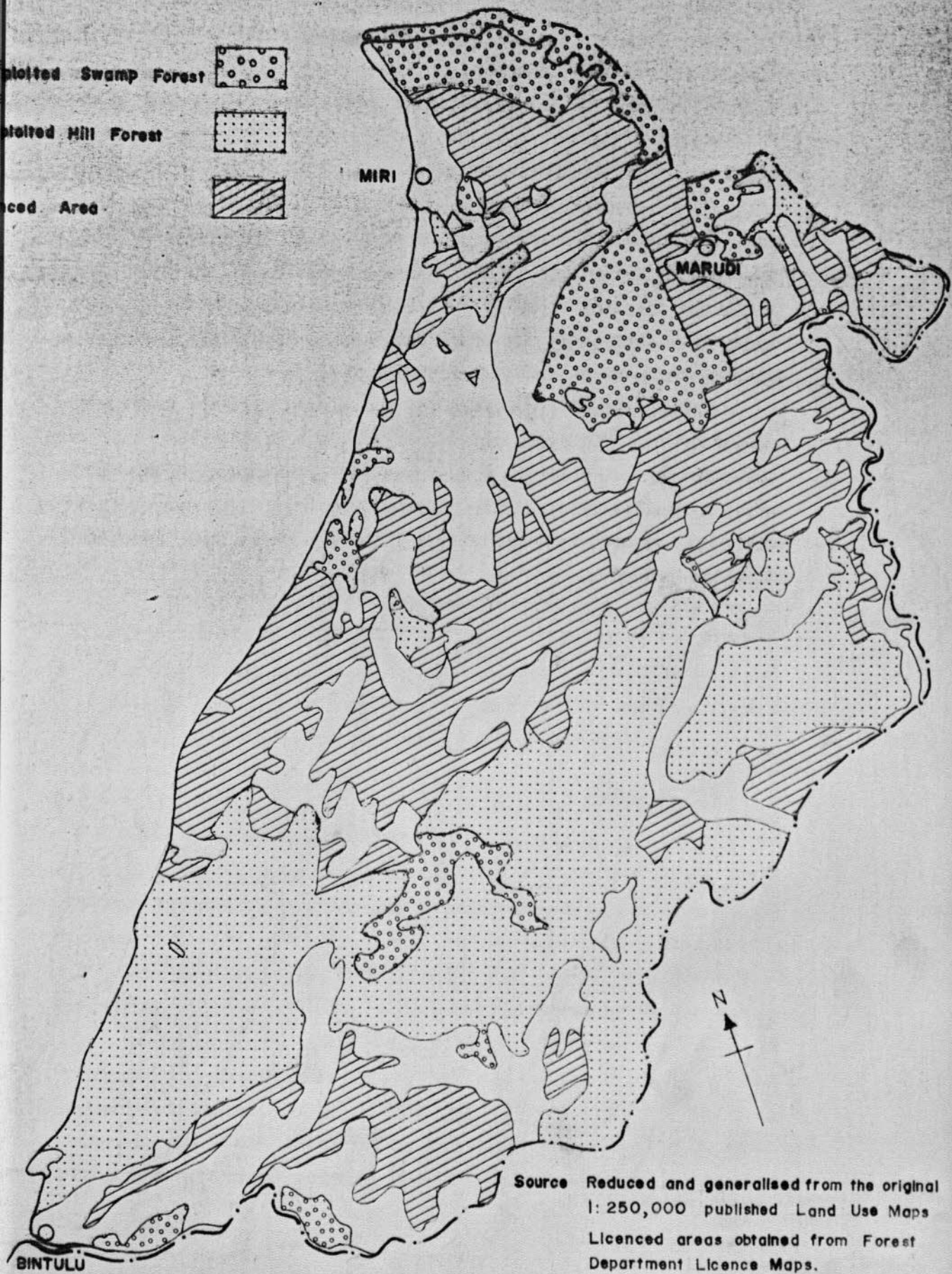
2.4.5 Oil and Gas Resources

"The discovery of new deposits of oil and gas off the north west coast of Sarawak has initiated plans to establish a Liquefied Natural Gas (LNG) plant within the Study Area." Its location, which could have a substantial impact on the physical structure of the Study Area, is apparently still a matter of discussion and negotiation between the State Government and the concession holder.

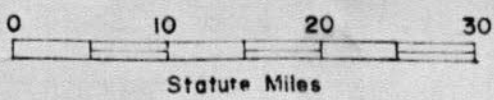
Though the oil production of the Lutong oilfield is expected to amount to 100 000 barrels per day by the end of 1972 - an expansion of the existing oil refining industry cannot be expected under the present conditions of limited domestic demand. Secondary industries utilising by-products, gas etc. will have a cheap power resource in these by-products.

FORESTRY RESOURCES

- Plotted Swamp Forest 
- Plotted Hill Forest 
- Licensed Area 



Source Reduced and generalised from the original 1:250,000 published Land Use Maps
Licenced areas obtained from Forest Department Licence Maps.



GENERAL RESOURCES

(including Oil and Gas)

Oil prospecting licence area:

Antimony

Black Sand

Gravel prospecting licence area:

Antimony

Sand mining licence area

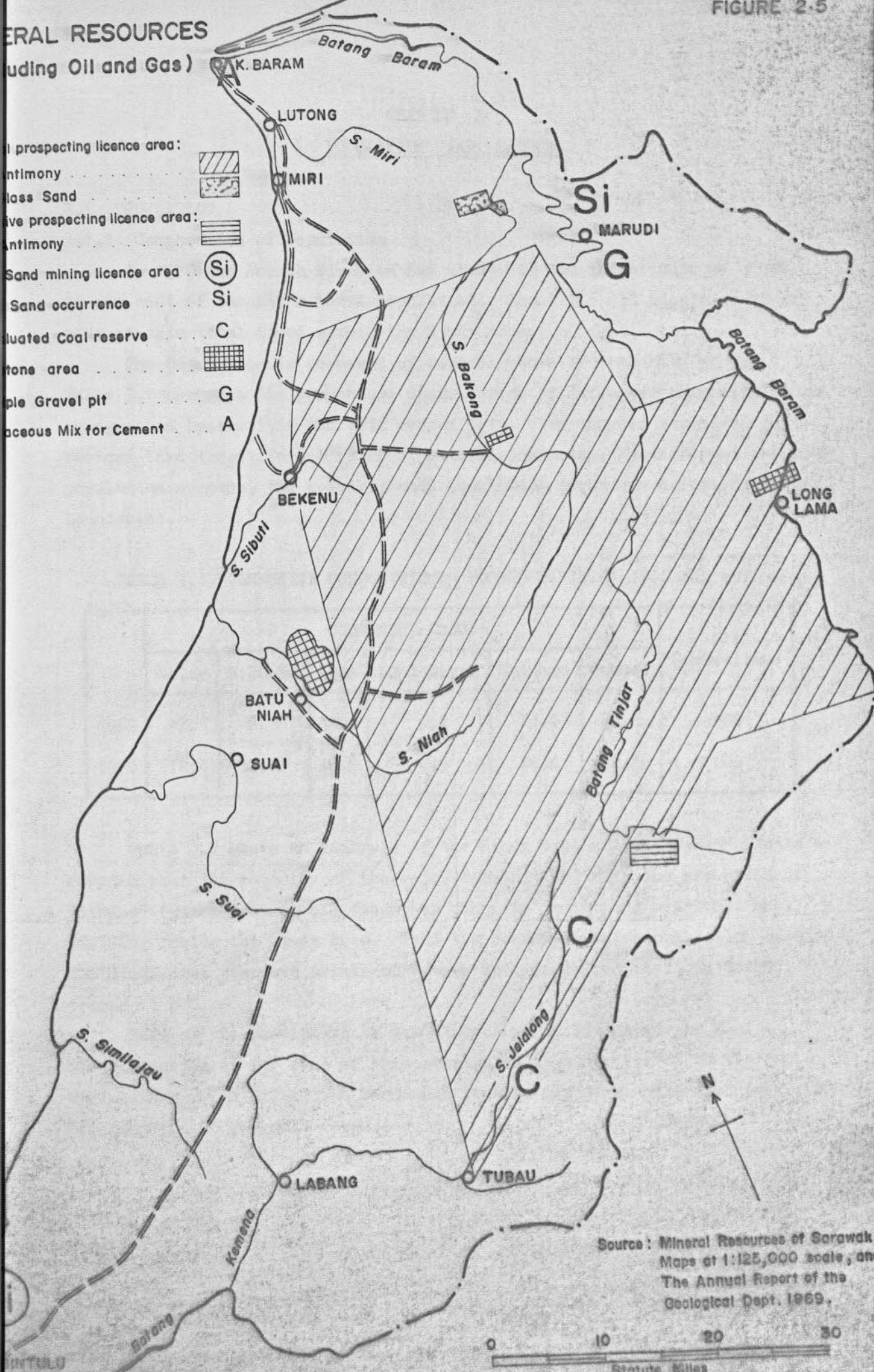
Sand occurrence

Quaternary Coal reserve

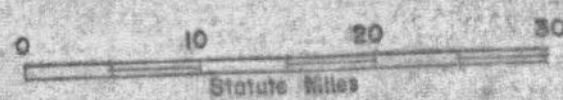
Gravel area

Gravel pit

Gravel Mix for Cement



Source: Mineral Resources of Sarawak
 Maps at 1:125,000 scale, and
 The Annual Report of the
 Geological Dept. 1969.



CHAPTER 3
POPULATION AND LABOUR

3.1. POPULATION

3.1.1 Composition of Population

In 1970 the Fourth Division had about 140 000 inhabitants or about 14 per cent of Sarawak's total population. About 116 439 people or 83 per cent of this total lived within the Study Area.

The population is composed of several races or community groups. Table 3.1 compares the percentage distribution of different community groups as revealed by the 1960 and 1970 census data. The changes shown are due to factors like the different rates of natural increase, the different original population numbers, and possibly some population movements across Divisional boundaries.

TABLE 3.1 COMMUNITY COMPOSITION - FOURTH DIVISION 1960 AND 1970

	COMMUNITY GROUP						All Communities
	Malay	Melanau	Iban	Land Dayak	Chinese	Others	
1960	12.1	6.5	33.1	0.2	24.9	23.2	100
1970	12.4	5.6	36.9	0.5	24.4	20.2	100

Table 3.2 shows an analysis of the Study Area's 116 439 inhabitants and reveals that the majority of the major communities, with the exception of "others" (which include all the other minority indigenous peoples), are residing inside the Study Area. Thus the Fourth Division population outside the Study Area consists mainly of "other indigenous peoples", in total around 11 000.

Half of the population in the Study Area is living in the Miri planning unit; 46 per cent of this population is concentrated in the Miri-Lutong urban area. The Baram and Bintulu planning units account for 24 per cent and 26 per cent respectively.

TABLE 3.2 COMMUNITY COMPOSITION BY PLANNING UNITS 1970

COMMUNITY GROUP	PLANNING UNIT						Study Area	
	Baram		Bintulu		Miri		Population	Per cent
	Population	Per cent	Population	Per cent	Population	Per cent		
Malay	2 280	8.3	2 214	7.4	12 645	21.3	17 139	14.7
Melanau	135	0.5	5 185	17.4	2 575	4.4	7 895	6.8
Iban	12 663	46.4	15 485	51.9	13 377	22.6	41 525	35.7
Land Dayak	38	0.1	255	0.8	362	0.6	655	0.5
Chinese	5 216	19.1	5 074	17.0	24 253	40.9	34 543	29.7
Others	6 975	25.6	1 642	5.5	6 065	10.2	14 682	12.6
All Communities	27 307	100	29 855	100	59 277	100	116 439	100

3.1.2 Population Distribution

3.1.2.1 Population Distribution by Community

Concentrations of particular communities are discernable over the Fourth Division (Table 3.2). This locational grouping of different peoples can be traced back to the effects of early settlement policy and the nature of occupation of the population. The Chinese and Malay populations are mainly urban and semi-urban dwellers, the largest concentrations being in Miri and Bintulu towns and smaller numbers in Marudi and other small towns. Melanaus are heavily concentrated in the Bintulu Administrative District, with Bintulu town accounting for 49 per cent of the group. The "Other Indigenous" groups are mainly in Baram District, which accounts for about 70 per cent of the total, the majority of which are outside the Study Area. Specific areas of concentration at the local level are also evident. In the three largest urban centres, Miri, Bintulu and Marudi the percentage of concentration of each community to its total population size in the Fourth Division in 1970 is as follows: Malays 65 per cent, Chinese 70 per cent, Land Dayaks 46 per cent, Melanaus 48 per cent, Ibans 6 per cent and Others 8 per cent.

TABLE 3.3 COMMUNITY DISTRIBUTION (IN PERCENTAGES) BY DISTRICTS, FOURTH DIVISION 1970

District	All Communities	Malay	Melanau	Iban	Land Dayak	Chinese	Others
Baram	28.3	13.0	1.7	23.4	6.7	15.7	69.9
Bintulu	29.4	14.2	70.6	47.9	47.1	16.4	8.7
Miri	42.3	72.8	27.7	28.7	46.2	67.9	21.4
Fourth Division	100	100	100	100	100	100	100

3.1.2.2 Population Distribution by Sex

An analysis of the sex composition of the population of Sarawak as a whole shows an excess of males over females; the male-female proportion per thousand population was 505 to 495 in 1960 and 504 to 496 in 1970.

In Fourth Division the number of females per thousand population is lower than the State average as shown in Table 3.4, and at the District level the proportion varies.

TABLE 3.4 SEX COMPOSITION PER THOUSAND POPULATION BY DISTRICT, FOURTH DIVISION 1960 AND 1970

District	1960		1970	
	Male	Female	Male	Female
Baram	520	480	525	475
Bintulu	517	483	517	483
Miri	526	474	531	469
Fourth Division	522	478	524	476

These below average District figures for females may be due to in-migration of males from other Divisions, thus making an excess of per cent, 2.6 per cent and 4.4 per cent males in Baram, Bintulu and Miri Districts respectively in 1970. Table 3.5 shows that in the Study Area the male excess is even larger; the equivalent figures being 6.5 per cent, 4.8 per cent and 5.4 per cent for Baram, Bintulu and Miri planning units respectively in 1970.

TABLE 3.5 SEX COMPOSITION PER THOUSAND POPULATION BY PLANNING UNIT IN STUDY AREA, 1970

Planning Unit	Males	Females
Baram	537	463
Bintulu	528	472
Miri	531	469
Study Area	531	469

The male:female ratio among the different communities distributed by District in Fourth Division is even more unbalanced (Table 3.6). For Sarawak as a whole the Melanaus, Ibans and Land Dayaks have an excess of females over males, but at the Fourth Division level which has an average of 524 males per thousand population, the picture is different. Comparing the District and Division figures with that of Sarawak as a whole, the average excess of males over females is between 2.6 per cent and 5 per cent. The conclusion is that migration of males to the Fourth Division may be one of the causes of the unbalanced population sex structure. The particularly large imbalance in the Melanaus in Bintulu District is probably an indication of inter-District migration, possibly in search of work.

TABLE 3.6 MALES PER THOUSAND POPULATION IN DIFFERENT COMMUNITIES
IN THE ADMINISTRATIVE DISTRICTS AND THE FOURTH DIVISION 1970

Community	Baram District	Bintulu District	Miri District	Fourth Division	Sarawak
Malay	545	519	515	519	504
Melanau	889 ⁽¹⁾	486	531	512	476
Iban	521	515	539	523	498
Land Dayak	674	609	594	606	498
Chinese	523	538	533	532	512
Others	523	523	513	521	518
All Communities	525	517	529	524	504

Note (1) Based on a total of 120 males and 15 females.

3.1.2.3 Age Group Distribution

Using the presently available detailed 1970 Census figures Table 3.7 has been compiled to show the population age distribution in the Study Area. Comparing the age group totals with equivalent figures from the 1960 Census shows that there has been very little change.

At the planning unit and sub-unit level comparing the proportion of children under 15 years to the respective total populations shows that in the Baram and Bintulu planning units the proportions are above the average for the whole Study Area, while the proportion in Miri planning unit is below the average for the Study Area. This can possibly be explained by

migration of the working age groups. The relatively high proportion of the 0 to 14 years age group in the Baram and Bintulu planning units could be the result of an out-migration of persons in the 15 to 64 age group to Miri planning unit which would account for the low proportion of the 0 to 14 years age group found there.

TABLE 3.7 AGE DISTRIBUTION PER THOUSAND POPULATION
STUDY AREA 1970 (SEE APPENDIX II.2)

Planning Unit	Age in years		
	0 - 14	15 - 64	65 and over
Baram	457	512	31
Bintulu	449	506	45
Miri	428	535	37
Study Area	441	522	37

3.1.3 Population Characteristics

3.1.3.1 Population Growth

Table 3.8 shows that the growth rate of the population in Fourth Division is higher than that of Sarawak as a whole. Migration inside Sarawak may be the explanation of this and the above average increase in some individual community groups.

TABLE 3.8 ANNUAL RATE OF GROWTH OF POPULATION BY COMMUNITY
IN FOURTH DIVISION AND SARAWAK 1960-1970

District	All Communities	Malay	Melanau	Iban	Land Dayak	Chinese	Others
	Growth rate per cent per annum						
Baram	2.8	3.0	11.2	3.1	14.2	2.4	2.7
Bintulu	3.5	3.5	1.6	3.5	23.5	5.1	3.1
Miri	3.9	4.4	3.2	6.0	5.1	3.5	0.9
Fourth Division	3.4	4.0	2.2	4.0	6.6	3.6	2.4
Sarawak	2.8	3.5	1.8	2.5	3.7	2.5	2.6

In the past estimated growth rates of population by communities in Sarawak have been erratic, probably because the estimates have been based on the number of registered births and deaths. Sometimes, in particular groups, births and deaths are not registered or are registered late. Thus specific annual crude birth and death rates can be incorrect. Table 3.9 shows that all major community groups have different crude birth and death rates, but those of the Malay, Land Dayak and Chinese are probably more representative of the true situation in Sarawak. It does not seem probable that death rates for Iban and "others" is lower than all the rest, on the contrary, there is reason to believe that poor nutrition among some Ibans and other indigenous communities would result in higher death rates.

TABLE 3.9 ESTIMATED CRUDE BIRTH AND DEATH RATES PER THOUSAND PERSONS IN DIFFERENT COMMUNITIES IN SARAWAK AND FOURTH DIVISION 1970

Community Group	Sarawak		Fourth Division	
	Birth rate	Death rate	Birth rate	Death rate
Malay	41.8	7.0	44.6	9.1
Melanau	24.8	6.3	19.7	5.5
Iban	16.9	3.8	19.6	4.1
Land Dayak	42.7	6.0	31.6	-
Chinese	34.3	4.5	36.2	5.1
Others	26.8	3.7	26.0	2.6
All Communities	30.6	4.9	29.0	4.8

Source: Estimates based on registered births and deaths.

Nevertheless, it is clear that there is a difference in the growth rate between communities and the large variations between the native communities suggests that their growth rates are still a long way from being stable. Improvements in their income and general standard of health in time should tend to increase their growth rates which could also be accelerated by a steady decline in the child mortality rates. Infant mortality for Sarawak, as a whole, during the period 1961 to 1970 has dropped by 50 per cent, that is from 60 to 30 per thousand live births. Evidence to show that better medical facilities would tend to increase

growth rates can be drawn from the Land Dayak community of the First Division which is the most economically advanced native group and which registers a higher growth rate than either the Iban or Melanau.

In 1960 the Chinese fertility ratio was 900.6 per thousand married women compared with an average of 755.4 for the whole of Sarawak, while those of indigenous groups except for the Land Dayaks, were below the State average. In the same year the mortality rate of children of indigenous peoples was about seven times higher than that of the Chinese; married Chinese mothers between the age of 25 to 29 years lost only 3.4 per cent of their children compared to 17 to 24 per cent for mothers of indigenous communities within the same age group. It appears reasonable to assume that if the indigenous populations, at present living at or near to subsistence level, improved their living standards and enjoyed the same medical facilities as the Chinese and Malays in the towns, they could reach rates of natural increase approaching that of the urban Chinese and Malay. However, these rising trends could be counteracted by increasing public and political importance being given to family planning for which a general understanding and acceptance seems to be growing as economic and social standards improve.

Assuming no net in-migration and a natural growth rate of 2.7 per cent annually the population by 1990 in the Study Area would be about 200 000. However, large scale settlement of peoples from other Divisions into parts of the Fourth Division in future will accelerate the overall rate of growth of population in the area.

3.1.3.2 Urban/Rural Population Distribution

Table 3.10 shows that the population of the Fourth Division and that of the Study Area is predominantly rural. In compiling the Table the differentiation between urban and rural has been based on a combination of the population size in a settlement, the density of settlement and the function of the settlement. Details of the divisions are given in Appendix II.

The percentage of rural dwellers varies between the planning units; about four-fifths of the population of the Baram and Bintulu planning units is classified as rural compared to only half in the Miri planning unit which is the most urbanised unit.

TABLE 3.10 DISTRIBUTION OF URBAN AND RURAL POPULATIONS IN THE STUDY AREA AND PLANNING UNITS 1970

Planning Units	Urban		Semi-urban		Rural		Total	
	Population	Percentage	Population	Percentage	Population	Percentage	Total Population	Percentage
Baram	3 910	14.3	596	2.2	22 801	83.5	27 307	100
Bintulu	6 220	20.8	674	2.3	22 961	76.9	29 855	100
Miri	27 021	45.6	2 641	4.4	29 615	50.0	59 277	100
Study Area	37 151	31.9	3 911	3.4	75 377	64.7	116 439	100

Of the total population in the Study Area 41 000 are living in urban and semi-urban areas. Approximately 47.5 per cent of these are Chinese and 26.0 per cent Malays; the balance is made up of other community groups.

There are only three recognisable fully urbanised centres in the Study Area, namely Miri, Bintulu and Marudi; these have a total population of 37 000. In addition, there are six semi-urban settlements with a total population of about 4 000 people giving a total urban and semi-urban population of roughly 41 000. There are over 200 rural settlements.

3.2 LABOUR

3.2.1 Economic Active Age Group

The theoretical supply of labour and its size is determined by the following factors:-

- a) Size of the population;
- b) Age structure of population;
- c) The lower and upper age limits of people that can be considered economically active.

The size of the population in the Study Area is about 116 000. About 60 000 or 52 per cent of this population are in the age group 15 to 64 years, which are the chosen lower and upper age limits. The reasoning behind this choice is that:-

- in Sarawak, as in most countries, a child below 15 years is hardly mature enough to undertake full productive labour task;
- the age of 65 is generally considered suitable for retirement for reasons of health, strength and staying power.

3.2.2 Labour Force

The labour force is defined as that part of the economically active age group that are willing and able to enter the labour market that is the population within the economically active age group less students, housewives, sick, handicapped and pensioners. Information on the size of these groups is not available. However, if we are assuming a labour participation rate (the proportion of the 15 to 64 age group which is job seeking) of 90 per cent for males and 60 per

cent for females, the present labour force in the Study Area will amount to 45 000. This figure corresponds to, but is not directly comparable with, the number of occupied in the Study Area because the occupation figure obtained through the 1970 Census includes all people above 10 years.

3.2.3 Employment - Unemployment

Employment is here defined as people gainfully occupied, that is the labour force less unemployed. The Labour Force Survey, which was carried through by the Department of Statistics in April/May 1972 gives information only for the larger towns in Sarawak. According to this Survey 7.2 per cent of males and 8.1 per cent of females between 15 and 64 years in Miri were classified as "actively unemployed", that is persons waiting and looking for work. The corresponding figure for "passively unemployed", that is persons wanting work, but not looking for work, were 1.8 per cent for males and 15.1 per cent for females. If these figures are used for the Study Area population, the number of actively and passively unemployed will be 4 600 and 5 000 respectively. The group of passively unemployed will, however, in this report be regarded as a part of the under or low productivity employed, because it is believed that these groups overlap to a large extent. Hence, the number of partly or fully employed persons in the Study Area is estimated at about 40 000 in 1970. This corresponds to an employment rate of 34 per cent, that is number of employed as a percentage of total population.

3.2.4 Under-Employment - Low Productivity Employment

The under-employment or low productivity employment is defined as people who are not working full hours or are employed in activities which give relatively little contribution to the gross regional product. The main group of people in this context are the padi planters. According to the 1970 Census this group constituted 21 155 persons, which is nearly half of the total labour force. Of the padi planters 46 per cent were women, and these females accounted for more than 85 per cent of the total female labour force.

A sample of five census circles selected from the three planning units indicated that out of a total of 1 473 padi planters and padi farm workers, 1 235 or 84 per cent worked for more than three hours per day and the balance three hours or less per day. The information refers to the week

prior to the 1970 Census (August). Of those working for more than three hours per day 41 per cent were females compared to 48 per cent for those working three hours or less per day. So there was not very much difference between males and females in the number of hours worked in padi planting and padi farm occupations. Work in padi farms is seasonal; therefore, during the period after planting and before harvesting, a significant proportion of the padi farm workers are probably under-employed, although they use some of the time for building and maintaining houses, constructing tools etc. which must be reckoned as productive work.

3.2.5 Occupation Structure by Sectors of Production

This analysis of occupation by sectors of production in the Study Area is based on information derived from the 1970 Census. In this census all persons aged 10 years and above were asked whether they were employed during the seven days prior to the enumeration day and if not currently employed, the last employment during the previous twelve months. Hence, the following figures are not directly comparable with the employment figures presented in the previous sections. However, the figures are believed to represent the main outline of the occupation structure in the Study Area.

The sectors used for the classification of the employment are identical with the sectors shown in the Gross Regional Product Table (Table 5.1). A summary of the employment in the different sectors by planning units is given in Appendix II Tables II.7 and II.8.

3.2.5.1 Primary Sector

The primary sector consists of agriculture, forestry, fishing and mining. This sector is the largest employer of labour in 1970, accounting for more than 28 000 persons or nearly 62 per cent of the total number occupied. Of this 28 000, 90 per cent are in agricultural occupations. Forestry, Fishing and Mining (including oil) together employ 3 135 workers, of which nearly 80 per cent are in forestry, which contributed the largest share in terms of the Gross Regional Product of the Study Area.

At the planning unit level, the primary sector is even more important. In the Miri planning unit, 53 per cent of the total labour

force was engaged in the primary sector compared to 87 per cent and 83 per cent for Baram and Bintulu planning units respectively. The non-primary sector is, therefore, of relatively little importance for Baram and Bintulu planning units. Of those employed in agriculture padi planters and padi farm workers accounted for 89 per cent in the latter two planning units. The majority of the padi planters and padi farm workers are thought to be involved in shifting cultivation of hill padi. Only 75 per cent of the agricultural workers in the Miri planning unit are engaged in padi cultivation.

3.2.5.2 Non-Primary Sectors

The non-primary sector includes all the remaining sectors of the economy except that group of workers whose occupation was not stated. The non-primary occupations accounted for 27 per cent of the total employment. However, non-primary employment is not evenly distributed over the Study Area. The Miri planning unit has about 9 000 or 75 per cent of the rough total of 12 000 employed, while the Bintulu and Baram units account for only 14 per cent and 11 per cent respectively. Economically the Miri planning unit is dominant. This can be seen from Appendix II Table II.8 where it is shown that the unit has 74 per cent of the manufacturing, 62 per cent of the trade, and 70 per cent of the service and miscellaneous groups, as well as over four-fifths of the employment in electricity and water, banking and insurance, public administration and construction, of the whole Study Area. Most of these are concentrated in the Miri-Lutong area.

Some clarification of the occupation statistics of the Study Area in 1970 is necessary when it is observed that in the mining (including oil), banking and insurance sectors very few employed are represented. The Labour Department has given entirely different figures for the same year when mining (including oil) accounted for 659 employed and banking and finance 126 employed for the whole of Fourth Division, as compared to 204 and seven respectively stated by the Census. The figures from the Labour Department would appear to be more realistic and it is likely that all the employed in the Fourth Division are working in the Study Area. Owing to a different system of occupational classification it is likely that some of the miscellaneous group of employed (Appendix II Table II.8) which include clerks and book-keepers, include some employed in the two above mentioned sectors.

3.2.5.3 Occupation Not Stated

Although this group of employed does not constitute any special sector by itself, it must be considered since it constitutes 11.3 per cent of the reported labour force of the Study Area. It is believed that a large proportion of the group are unemployed or under-employed and are probably town dwellers. For instance, a sample survey of five Census Circles shows that half of the people in the group in the Miri bazaar Census Circle worked less than three hours per day.

3.2.5.4 Conclusion

The employment data indicate a predominantly male occupation with well over 90 per cent males in each economic sector. The only sector in which women participated significantly is agriculture, and most of them were in padi planting and padi farm working. Such occupations are attributed to the native communities engaged in padi cultivation. The only other sector in which women participated in significant numbers is in the miscellaneous group, and by the nature of their work it is reasonable to assume that this particular group of female workers are employed largely in urban areas. Not unexpectedly, Miri planning unit has the largest number of female workers, more than 90 per cent of the total females in the miscellaneous group. On the whole, female employed accounted for only 33 per cent of the total employed, nearly 46 000 in the Study Area. The Miri planning unit alone accounted for 78 per cent of all employment in the non-primary sector, although each of the three planning units has about a third of the total primary employment.

CHAPTER 4

THE MALAYSIAN ECONOMY

4.1 THE MALAYSIAN ECONOMY IN GLOBAL PERSPECTIVE

In an Asian context the Malaysian economy must be considered prosperous with a 'national product' of more than US\$375 per capita. (Calculation of the 'gross national product' GNP has been carried out by FAO, ECAFE, the Malaysian Department of Statistics and other agencies. The results, however, do not quite correspond. The Malaysian estimates seem the more modest ones with approximately US\$375 per capita (rate of exchange - \$US/\$Malaysian : 1/3.05) while the revised FAO estimates amount to more than US\$400 per capita in 1970). This figure places the country at an economic level which is extraordinary for non-industrialised nations and makes it on the level with some Mediterranean countries and more prosperous than any African or Asian country apart from Japan, Hong Kong and Singapore.

Malaysia has developed into a relatively prosperous country partly because of both historical and physical reasons. The physical resources and the geographical location of the country permitted early development and an early introduction into the world market as an exporter of agricultural products. The pattern of subsistence farming was modified and supplemented by more effective and economic ways of production. This efficiency and prosperity, however, has not affected equally all groups in the society. Certain groups, particularly the Malays and other indigenous peoples, were left behind in the general development.

The export orientation of Malaysian production is still reflected in the foreign trade of the country. With Japan, Malaysia is the only large country in Asia with a positive trade balance and because the surplus is not out of proportion with the total trade, the country has been able to maintain a stable economy during the last decade. This stability, up to 1970, has been encouraged by the steady growth of the national product, and by rather favourable trends in export prices, leaving the Malaysian national economy with only small changes in nominal prices.

The fact that export trade contributes approximately 50 per cent of the GNP emphasises that the Malaysian economy depends heavily on the terms of foreign trade. This means that the international market prices are crucial for the major export goods such as tin, rubber and timber; these products account for two-thirds of total exports.

A main feature of the Malaysia economy is that its development the past seems to have taken place within the traditional structures the production pattern. The growth in the national product per capita is consequently a growth of productivity within the existing trades rather than a structural change. This is due to the agricultural origin of the traditional export products but because increasing productivity cannot be expected forever within these fields, a change in the production structure must be encouraged if economic growth is to be continued.

A comparison of the sector contributions to the GNP within different categories of developing countries is illustrated in Table 4.1.

TABLE 4.1 AVERAGE PERCENTAGE CONTRIBUTIONS OF DIFFERENT SECTORS TO THE GNP

Sector	GNP per capita US dollars		
	350 - 400	200 - 350 ⁽¹⁾	350 - 575 ⁽¹⁾
	Per cent		
Agriculture	32	34	15
Mining	6	2	11
Manufacturing	13	15	16
Construction	4	5	5
Public utilities	2	1	2
Transport	4	6	6
Services	39	37	45
	100	100	100

Note (1) Kuznets "Modern Economic Growth", New York, 1966.

Table 4.1 indicates that the structure of the Malaysian economy is similar to the low-income example. However, a few reservations should be made; the quoted income per capita examples are not very recent, and the agricultural sector in Malaysia cannot be regarded as purely agricultural in this context.

4.2 SARAWAK IN THE MALAYSIAN ECONOMY

Due to its geographical character and its production pattern Malaysia has been characterised as a regionalised economy nation. Sarawak is a typical region in this sense; bounded by the South China Sea, Indonesia and Brunei and with inaccessible borders towards Sabah. These geographical circumstances emphasise the regionalised structure of the State's economy. Only in recent time has the changed political structure tied together the East and West Malaysian economies.

The Sarawakian economy has not yet reached the level of development of West Malaysia; the ratio of population living in urban and rural areas is different from West Malaysia. The proportion of rural people is higher in Sarawak as is shown in Table 4.2. Because the per capita contribution of rural populations to the national product is usually considerably smaller than that of urban populations, a major difference in the GNP per capita is to be expected.

TABLE 4.2 DISTRIBUTION OF URBAN AND RURAL POPULATIONS
IN SARAWAK AND WEST MALAYSIA (1970 CENSUS)

	Sarawak		West Malaysia	
	Thousands	Per cent	Thousands	Per cent
Large towns	150	15	2 530	29
Small towns	54	6	1 152	13
Rural areas	772	79	5 128	58
Total	976	100	8 810	100

The urban/rural ratio is reflected also in the distribution between the different sectors of production as shown in Table 4.3.

It is, however, remarkable that the per capita GRP of Sarawak is so slightly affected by the lower industrialisation and service level compared with West Malaysia. The GRP per capita in 1970 is estimated at \$996 in West Malaysia and \$906 in Sarawak. This equality is due to the importance of the forestry industry which constitutes an influential sector in Sarawak's economy. The contribution to the GRP of the agricultural production per employed person was much less in Sarawak than in West Malaysia.

The manufacturing sector in Sarawak is less important than the GRP

GRP figures indicate because a considerable part of the "value-added" (that is production value) is created by the oil refining industry which has a special structure with respect to capital supply and labour demand.

TABLE 4.3 GROSS REGIONAL PRODUCT 1970

	Sarawak		West Malaysia	
	Mn dollars	Per cent	Mn dollars	Per cent
Agriculture, forestry, fishing	349	40	2 607	31
Mining	32	4	556	6
Manufacturing and construction	129	14	1 447	17
Services	374	42	3 900	46
Total	884	100	8 510	100

The apparent balance between the West Malaysia and the Sarawak service-sector contribution is due partly to the extended value-added in the transport sector caused by higher costs in Sarawak. These in turn are the consequence of a less developed communication system in East Malaysia.

The growth in the GRP of Sarawak has developed on lines different from West Malaysia, although the total growth per capita has occurred at almost the same rate. Based on current prices the growth in the Regional Product (1967-1970) was 5.4 per caput in West Malaysia and 6.2 in Sarawak.

The main Sarawak agricultural population still largely depends on traditional cultivation patterns and only a minor growth has been registered in this sector. It has been compensated for, however, by considerable growth of the output in the forestry sector which since the beginning of the 1960's has played an important part in the East Malaysian economy. In monetary terms it has contributed more than any other industry in 1970 to the earning of foreign exchange, and its share of the Regional Product exceeds 15 per cent compared with 1.8 per cent in West Malaysia. The forestry sector product in Sarawak has increased at an annual growth rate of approximately 17 per cent.

The oil industry takes an important and special position in Sarawak's economy. In 1970, the crude oil production was still of minor importance, less than 20 000 barrels a day; the on-shore exploitation was declining while off-shore production was not yet fully developed. However, during 1973 the output from the Miri off-shore fields is expected to exceed 100 000 barrels a day and the importance of crude oil production on the regional economy will increase greatly.

The present economic influence of the oil industry in the regional economy is mostly due to the established refining industry which has been the dominant Sarawak manufacturing enterprise. In 1970 the value-added by the Lutong refinery accounts for 69 per cent of the sector's contribution to the Sarawak GDP, in addition, it is the largest single employer in East Malaysia apart from Government. But in this context the effect on the local and State economy of the refinery is less than indicated by the amount of value-added, because a greater part of this accrues to foreign capital and to expatriate staff, who consume only part of their incomes in the State. Yet the oil industry and accordingly the mining sector has been the fastest expanding sector of all with an annual growth rate of more than 100 per cent during the period 1967 to 1970.

Sarawak has, in common with West Malaysia, a strongly trade oriented economy, in which export products contribute about 50 per cent of the total GDP. An overwhelming proportion of the exported goods from Sarawak are primary products. This means that the foreign trade and thereby the GDP is particularly affected by changes in the market trends for these goods. This effect is emphasised in Malaysia where both rubber and pepper production are determinant in the total world supply. This could be a favourable position if the country was in a position to control the international market - but as this is not the case, the position could very well be the contrary because even minor changes in the international trends will have a serious impact on the local economy. Similar problems apply to the timber trade although the more diversified market reduces the effects to a certain extent. No problems of this kind are expected for oil products.

5.1 ECONOMIC STRUCTURE

This part of the report aims at giving a description in monetary terms of the relative importance of the various sectors of production. Production in this respect means all kind of economic activities or gainful occupations, such as growing of crops, production of goods, construction of works and structures and performance of services, for example doctors and public administrators. Production can be expressed in physical units, for example tons and cubic metres, or in monetary terms, which expressed the value of production.

Most products have to pass through several stages of production before reaching the final product stage ready for consumption. Each stage of production adds to the value of the product; hence the concept value-added, which includes:-

- the value of labour put into production (measured as salaries, wages or estimated value of final products for sale and/or personal consumption);
- interest on capital applied for production;
- land rent; and
- net profits.

The total value-added produced in one year within a certain land area is called the National (for a whole country) or Regional (for a part of a country) Product. As the value of production is distributed among the factors of production, this value is at the same time also the income of the persons who in one or another capacity (wage earner, capital owner etc.) have participated. The National Product, therefore, might as well be called the National Income. In economic language usually the terms GNP or GRP are used for Gross National or Regional Product.

The GRPs for Sarawak as well as for the Study Area are presented in Table 5.1. Lack of data has confined the calculation to 1970 and has prevented the extension of the analysis to a more dynamic sector comparison. Product values are estimates, some of which are more reliable than others. Checks on sources have been carried through whenever possible, but gaps in certain fields of statistics have naturally prevented a complete analysis.

To obtain value-added (VA) from the product value, certain calculations

TABLE 5.1 TOTAL GROSS REGIONAL PRODUCT (1970)

Sector	Sarawak		Study Area		Study Area as a percentage of total Sarawak
	Mn dollars	Per cent	Mn dollars	Per cent	Per cent
Agriculture	180	20.4	17.470	8.9	9.7
→ Forestry	148	16.7	<u>62.000</u>	<u>31.5</u>	<u>41.9</u>
Fishing	21	2.4	2.405	1.2	11.5
Mining including oil	32	3.6	<u>30.680</u>	15.6	95.9
	Mining excluding oil	2	-	0.440	-
Manufacturing including refinery	81	9.2	<u>32.170</u>	16.3	39.7
Manufacturing excluding refinery	56	-	6.955	-	12.4
Construction	48	5.4	1.925	1.0	4.0
Electricity plus water	11	1.2	4.235	2.1	38.5
Transport	52	5.9	7.165	3.6	13.8
Trade	116	13.1	14.560	7.4	12.6
Banking plus insurance	9	1.0	2.790	1.4	31.0
Ownership of dwelling	45	5.1	8.100	4.1	18.0
Public administration	50	5.7	3.570	1.8	7.1
Services	91	10.3	10.095	5.1	11.1
Gross domestic product at factor cost	884	100.0	197.165	100.0	22.3
Gross domestic product at factor cost excluding oil	829	-	141.710	-	17.1

(reductions) have been carried through in the different industries. Most of the reduction factors are based on West Malaysian experiences, but where it has been possible, these have been checked and changed in accordance with specific local conditions. The methods used by the Department of Statistics to work out its GNP estimates have in this way only been corrected in cases where obvious inconsistencies existed.

Table 5.1 shows the GRP of the Study Area to be approximately 20 per cent of the whole of Sarawak. Even when oil is excluded and the percentage drops to 17, it is larger than the share of population living in the Study Area, namely 12 per cent. This suggests that the per capita Regional Product is higher in the Study Area than in the rest of Sarawak. When including oil production the per capita GRP in the Study Area is about \$1 700 or roughly twice the per capita GRP in the rest of Sarawak; excluding oil production the per capita GRP is around \$1 200 which would be 1.6 times that of the rest of Sarawak. In Appendix III explanations are given on the preparation of the Table, as well as details supporting the estimates.

5.2 FINANCIAL ASPECTS

5.2.1 Introduction

Allocation of real resources, that is land, labour, production machinery, structures etc., to various activities and projects within the country or region under consideration is a primary task in all development. Allocation of capital or money resources, that is financing, is a means of organising the allocation of real resources and as such it plays its own part in development considerations.

Capital for development of a certain region can come from inside or from outside this region. Capital coming from inside, that is provided by persons, companies or finance institutes living or located in the area, may often be administered by people who have a special knowledge of local conditions; this knowledge can be an advantage in selecting those projects, which they want to finance and which will prove viable under local conditions.

The economic viability of a certain project, that is its ability to pay and repay the invested capital and to pay for all other factors of production (land manpower of any kind), will primarily depend on local conditions for the project, possibly supplemented by necessary inputs from outside. So, even if it is possible to attract financing from outside, it is important to study possible sources of regional supply of financing.

The financing can originate both in the public and in the private, or commercial, sector of the economy. Both sectors have a heavy impact on the local economy and only by co-ordinating the resources of both of them in some kind of a general financial policy could an optimal utilisation of these resources be secured. This calls for a centralised and deliberate control of the money supply, primarily exerted via the public finances, and if necessary with supplementary guiding of private capital movements.

For these reasons an attempt has been made in this report to analyse public and private finances. This has been difficult and the results problematic because regional figures do not usually appear in statistical publications or in private annual reports etc. Furthermore financial matters are often considered as commercial and political secrets which are only reluctantly disclosed. Nevertheless with the help of all public authorities comprehensive estimates of public revenues and expenses within the Study Area have been made. Probably more questionable information on capital movements in the private sector has also been collected.

5.2.2 Public Finances in the State

The information on public finances in this paper is limited to accounts of the revenues received and the expenditures paid by the different authorities, thus describing the flow of money from the society to the public sector and back again. Consequently all Federal and State Departments, Statutory Bodies and Local Governments active in the Study Area, have been scrutinised as far as their economic activities are concerned. Only the Police and the Armed Forces have been excepted.

The main explanations and trends are given below, while the detailed information is given the Appendices IV and V.

5.2.2.1 Revenue

The Federal Constitution describes the sources of revenue assigned to the State and the various grants receivable from the Federal Government, Appendix (IV) refers to the collection of revenue by various agencies. The revenue collected by the different agencies either goes to the Federal Consolidated Revenue Account, State Consolidated Revenue Account, Statutory Bodies Account, or Local Government

Treasury. Appendix V gives the amount collected for 1970 within the Study Area.

5.2.2.2 Expenditure

The expenditure of the various bodies is categorised into two main groups: Ordinary Expenditure which includes Recurrent, Non-Recurrent and Special Expenditure; and Development Expenditure. The amount of Expenditure by each body is shown in Appendix V.

5.2.2.3 Administrative Organisation

The Federal and State administrative organisations are designed primarily for executive reasons but they are also applied to the financial functions.

a) Federal Departments: the operations of these Departments are financed out of the authorised sum allocated to them through the expenditure budget of the Federal Government. Each department has its own vote book containing departmental allocations and its spending is mainly based on those allocations though supplementary sums are sometimes available.

b) State Departments: the expenditure is shown in the Sarawak estimates of revenue and expenditure and their ordinary expenditure is financed out of Sarawak consolidated revenue account, while the development expenditure is covered by the State and Federal Account. These Departments also have vote books and their spending should be within the amount authorised but they could have supplementary sums allocated to them.

c) Local Governments: these are financially autonomous, and their operations are financed out of the revenue collected within their area of jurisdiction. If they undertake State or Federal Department functions, they would be allocated grants, or be reimbursed the cost of the work done. They have their own treasury, and every year they have to submit annual revenue and expenditure estimates to the Ministry of Local Government. Only after the approval from this Ministry, can they collect or spend money. The local Governments can apply to the Ministry to cover unexpected deficit, but in this case projects are usually accomplished under requisition.

d) Statutory Bodies: they finance their operation out of their own revenue and sometimes from loans and grants from State or Federal Government, or from foreign agencies through arrangement made by the Federal Government. However, their operation is mainly founded on commercial

principles, thus initial grants or loans would normally act as their revolving funds.

5.2.3 Public Finance in the Study Area

The involvement of the public sector in the Study Area is shortly described as follows.

Considering the years 1969 and 1970 as shown in Table 5.2 there were surpluses of revenue over expenditure in both years. In 1969, the surplus was \$7.7 mn while in 1970, it was \$6.8 mn (a decline of approximately \$900 000). In 1969 the revenue was two per cent larger than the 1970 revenue but the expenditure in 1970 was the greater by one per cent. The revenue/expenditure ratio shows a slight fall from 1.30 : 1 in 1969 to 1.26 : 1 in 1970.

TABLE 5.2 COMPARISON OF REVENUE AND EXPENDITURE

	Revenue		Expenditure		
	Total	Change	Total	Change	Per cent of revenue
	Thousand dollars				
1969	33 166		25 468		76.7
1970	32 514	-652	25 705	+237	79.0

TABLE 5.3 COMPARISON OF TOTAL EXPENDITURE AND DEVELOPMENT EXPENDITURE

	Total expenditure	Development expenditure	Per cent of total expenditure
		Thousand dollars	
1969	25 468	11 200	44.9
1970	25 705	10 111	39.3

Table 5.3 indicates that the expenditure on development declined in 1970 yet the total expenditure increased, this increase must, therefore, have occurred in ordinary expenditure within the Study Area.

The development expenditure amount of 1970 declined by 9.8 per cent (around \$1.1 mm) while the ordinary expenditure increased by 9.2 per cent.

Considering the distribution of the changes in development expenditure between the different administrative sections, the Federal Departments show 25 per cent growth and Statutory Bodies two per cent growth, while the State Departments show a fall of 17 per cent and Local Government a fall of 20 per cent compared to 1969.

A comparison of revenue and development expenditure is given in Table 5.4.

TABLE 5.4 COMPARISON OF REVENUE AND DEVELOPMENT EXPENDITURE

	Revenue	Development expenditure	Per cent of revenue
	Thousand dollars		
1969	33 166	11 200	33.7
1970	32 514	10 111	31.0

As shown in Table 5.4 the total revenue from the Study Area has declined at the same time the relative importance of the development expenditure is also declining.

5.2.3.1 Revenue and Expenditure of Various Organisations in the Study Area, a Comparison of the Years 1969 and 1970

a) Federal Government: the revenue shows a growth of 5.5 per cent and expenditure a growth of 14.2 per cent. There was a surplus of \$5 518 000 in 1969 and a slightly lower one of \$5 224 000 in 1970.

b) State Government: the revenue shows a decline of 8 per cent and expenditure, 4.5 per cent. However, for both 1969 and 1970, there were surpluses of \$3 731 000 and \$2 937 000 respectively.

c) Local Government: the revenue shows a growth of 19 per cent while the expenditure declined by 11.9 per cent. In 1969 there was a deficit of \$122 000, but in 1970 there is a surplus of \$153 000.

d) Statutory Bodies: the revenues of these bodies show a decline of 2.6 per cent while their expenditure increased by 1.1 per cent. However, in both 1969 and 1970, there was a deficit of \$1 429 000 and \$1 505 000 respectively; the expenditures were for development purposes.

5.2.3.2 Discussion

The accounts of public revenue and expenditure, reveal a considerable net absorption of money by the public sector in the Study Area. Apparently this has been the accepted policy because a clear tendency to operate with surpluses on all budgets has been recorded during a number of years. These surpluses amount to an annual total of approximately 20 per cent of the total balance of all public budgets.

This policy, however, has recently been reconsidered on State level and a new attitude is emerging, which among other things is manifested by the Chief Minister in his Budget Speech on 6th March, 1972 to the Council Negri. The speech runs: "... with the increasing tempo in development and the need to provide services to the people in the State, it is most likely that we will continue to have deficit budgets during the next two or three years, assuming that our sources of revenue cannot be further expanded.", and: "... it is a false budgetary policy to restrict expenditures either development or recurrent in order to leave and possibly increase the surpluses we have been accumulating at the expense of restricting the kind of services demanded by the people." This indicates a more progressive way of using public finances as an instrument for accelerating economic development.

5.2.4 Private Finances

The private sector might be considered from two angles as far as their finances are concerned: institutional finance and private or personal finance.

The latter is most difficult to evaluate because knowledge of these capital movements is not readily available. The main export trades are probably the most important private finances. Even a minor percentage of the total export sales revenue will, if placed abroad or outside the Study Area, constitute an important considerable outflow of capital.

The institutional part of the private sector is concerned with banking, long term loans and insurance. The banking and the financial sector are the most organised and it has been possible to obtain an overall picture of the capital movements in these sectors. For example

it is known that while the commercial banks and financing corporations had deposits amounting to approximately \$50 mn their total granted loans, advances and overdrafts were only around \$12 mn. This 4:1 ratio between deposits and loans has not changed over the time, and there is still a net balance of capital outstanding of about \$40 mn in the Study Area.

This emphasises the present trend of Sarawak as a net capital exporter. According to Bank Negara Malaysia, total deposits with the private sector banking institutions at the end of 1970 were \$219 mn and the loans etc. \$116 mn, the same figures for mid-1972 were \$259 mn and \$143 mn respectively. This shows a constant net outstanding, which despite the slight ratio change, demonstrates the role of Sarawak in the capital market.

The insurance enterprises in Sarawak are all agents for outside companies, and the capital inflow of these enterprises is consequently mainly invested outside the State.

Investments in real estate and other private developments, apart from the Sarawak Shell Berhad, are mainly from local capital sources. There is no indication that major foreign enterprises are operating in this field in the Study Area. Thus it appears that the private sector is also absorbing purchasing power by acting as net capital exporter from the Study Area. The considerations as to the desirability of this tendency must be the same as the ones for the public sector.

There are many ways to change the ratio between public expenditures and revenues and private local investments and savings, but a balancing or even a policy of over expenditure of the public budgets would be an obvious remedy in a new development policy. But investments in oil, gas and their processing are not considered relevant in this context because these specific foreign investments do not affect the local capital market.

APPENDICES

APPENDIX I
NATURAL RESOURCES

TABLE I.1 LAND USE CATEGORIES (ACRES) FOR PLANNING UNITS

Planning Unit	Planning Sub-unit	Forest Land		Agricultural Land				Urban settlements	Non-agricultural and unproductive lands	Total
		Hill Forest	Swamp Forest	Shifting Cultivation	Wet padi	Grassland and other secondary growth	Permanent crops and horticultural lands			
BARAN	Bakong	125 310	230 641	48 482	5 558	100	4 478	78	1 853	416 500
	Marudi	52 893	133 392	32 733	226	29 182	13 822	620	4 632	267 500
	Long Lama	457 611	27 637	101 904	926	39 680	926		2 316	631 000
	Sub-total	635 814	391 670	183 119	6 710	68 962	19 226	698	8 801	1 315 000
BINTULU	Sub-total					75 672			9 499	
	Bintulu	211 767	3 452	21 616	3 396	17 447	8 338	3 397	13 587	283 000
	Kemena	427 741	71 488	177 560	195	11 117	5 941	2 533	11 425	708 000
	Sub-total	639 508	74 940	199 176	3 591	28 564	14 279	5 930	25 012	991 000
MIRI	Sub-total					32 155			30 942	
	Miri North	73 300	108 080	15 286	1 390	19 454	10 190	5 349	3 451	236 500
	Sibuti	136 910	22 951	86 790	2 933	13 125	4 941	2 732	618	271 000
	Hiab-Jual	596 302	102 712	10 807	156	20 072	8 029	844	78	739 000
GRAND TOTAL	Sub-total	806 512	233 743	112 883	4 479	52 651	23 160	8 925	4 147	1 246 500
		2 081 834	700 353	495 178		164 957	56 665		53 513	3 552 500

Hill Forest includes
Hill forest
Kerangas forest
Riverain forest
Beach forest

Swamp Forest includes
Mixed swamp forest
Alun
Swamp (Paya)

Permanent crops include
Rubber
Pepper
Coconut
Sago
Oil palm

Source
All figures obtained by planimeter measurement from the published 1:250 000 scale land use maps (1968).

TABLE I.2 PERCENTAGE LAND USE CATEGORIES WITHIN PLANNING UNITS

Planning unit	Planning sub-unit	Forest Land		Agricultural Land				Urban settlements, non-agricultural and unproductive lands
		Hill forest	Swamp forest	Shifting cultivation	Wet padi, grassland and other secondary growth	Permanent crops and horticultural lands		
BARAM	Bekong	6.0	32.9	9.8	3.4	7.9	3.6	
	Marudi	2.6	19.1	6.6	17.9	24.4	9.8	
	Long Lama	22.0	3.9	20.6	24.6	1.6	4.4	
	Sub-total	30.6	55.9	37.0	45.9	33.9	17.8	
BINTULU	Bintulu/Similajau	10.2	0.5	4.4	12.6	14.7	31.7	
	Kemena	20.5	10.2	35.8	6.9	10.5	26.1	
	Sub-total	30.7	10.7	40.2	19.5	25.2	57.8	
MIRI	Miri North	3.5	15.4	3.1	12.6	18.0	16.4	
	Sibuti	6.6	3.3	17.5	9.7	8.7	6.3	
	Niah-Suai	28.6	14.7	2.2	12.3	14.2	1.7	
	Sub-total	38.7	33.4	22.8	34.6	40.9	24.4	
	TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE I.3 LAND USE CATEGORIES AS A PERCENTAGE OF TOTAL PLANNING UNIT AND SUB-UNIT AREA

Planning unit	Planning sub-unit	Forest Land		Agricultural Land			Urban settlements, non-agricultural and unproductive lands	Total Per cent
		Hill forest	Swamp forest	Shifting cultivation	Wet padi, grassland and other secondary growth	Permanent crops and horticultural lands		
BARAM	Bakong	30.1	55.4	11.6	1.3	1.1	0.5	100
	Marudi	19.8	49.9	12.2	11.0	5.2	1.9	100
	Long Lama	72.5	4.4	16.2	6.4	0.1	0.4	100
	Sub-total	48.3	29.8	13.9	5.8	1.5	0.7	100
BINTULU	Bintulu/Simlanjau	74.8	1.2	7.6	7.4	3.0	6.0	100
	Kemena	60.4	10.1	25.1	1.6	0.8	2.0	100
	Sub-total	64.5	7.6	20.1	3.2	1.5	3.1	100
	Miri North	31.0	45.7	6.5	8.8	4.3	3.7	100
MIRI	Sibuti	50.5	8.5	32.0	5.9	1.8	1.3	100
	Niah-Suai	80.7	13.9	1.5	2.7	1.1	0.1	100
	Sub-total	64.7	18.7	9.1	4.6	1.9	1.0	100
	STUDY AREA	58.6	19.7	13.9	4.7	1.6	1.5	100

TABLE I.4 LAND TENURE CLASSES (ACRES) FOR PLANNING UNITS

Planning Unit	Planning Sub-unit	Total Study Area Land possibly		Mixed Zone Land possibly		Native Area Land possibly		Native Customary Land possibly		Interior Area (3) Land possibly		Reserves Land possibly	
		Suitable	Unsuitable	Suitable	Unsuitable	Suitable	Unsuitable	Suitable	Unsuitable	Suitable	Unsuitable	Suitable	Unsuitable
BARAM	Bakong	77 000	339 500	1 000	6 500	-	71 500	68 000	60 300	8 000	127 700	-	73 500
	Marudi	29 500	238 000	5 000	18 500	-	77 000	24 000	45 000	-	58 500	500	39 000
	Long Lama	95 000	536 000	2 000	2 000	-	1 500	90 000	141 500	3 000	193 000	-	198 000
	Sub-total	201 500	1 113 500	8 000	27 000	-	150 000	182 000	246 800	11 000	379 200	500	310 500
	Bintulu	90 500	192 500	7 500	1 000	-	1 500	28 500	4 600	6 000	29 800	48 500	155 600
BINULU	Kemena	188 500	519 500	6 700	2 500	11 000	12 500	119 300	81 500	24 000	197 000	27 500	226 000
	Sub-total	279 000	712 000	14 200	3 500	11 000	14 000	147 800	86 100	30 000	226 800	76 000	381 600
	Miri North	15 500	221 000 (1)	7 950	61 000 (1)	850	1 000	6 700	14 000	-	18 000	-	127 000
MIRI	Sibuti	49 000	(222 000) (2)	-	12 000	4 500	16 500	37 000	1 000	7 500	24 500	-	3 000
	Niah-Sual	317 500	430 500	32 000	19 500	1 500	11 500	83 500	18 500	116 000	136 000	84 500	245 000
	Sub-total	382 000	873 500	39 950	92 500	6 850	29 000	127 200	33 500	123 500	178 500	84 500	375 000
	Total	862 500	2 690 000	62 150	123 000	17 850	193 000	457 000	366 400	164 500	784 500	161 000	1 067 100
	Grand total	3 582 500		185 150		210 850		823 400		949 000		1 228 100	

For agricultural development

Note (1) Includes 12 000 acres - Urban Land.

(2) Includes 165 000 acres not assessed in Lambir-Subis Development Area.

(3) Includes small areas Forest Reserves under logging licence.

Source: Zonation Plan Map and existing 1:50 000 and 1:1.5 m Land Tenure maps, Land and Survey Department, Miri.

TABLE 1.5 LAND TENURE CLASS AND LAND WITH POSSIBLE AGRICULTURAL POTENTIAL AS A PERCENTAGE OF TOTAL PLANNING UNIT AND SUB-UNIT IN THE STUDY AREA

Planning Unit	Planning Sub-unit		Total Study Area		Mixed Zone		Native Area		Native Customary		Interior Area		Reserves	
	Possibly suitable	Unsuitable	Possibly suitable	Unsuitable	Possibly suitable	Unsuitable	Possibly suitable	Unsuitable	Possibly suitable	Unsuitable	Possibly suitable	Unsuitable	Possibly suitable	Unsuitable
BARAN	Bakong	18.4	81.6	0.2	1.6	-	17.2	16.3	14.5	1.9	30.7	-	17.6	
	Marudi	11.0	89.0	1.8	6.9	-	28.8	9.0	16.8	-	21.9	0.2	14.6	
	Long Lama	15.1	84.9	0.3	0.3	-	0.2	14.3	22.4	0.5	30.6	-	31.4	
	Sub-total	15.3	84.7	0.6	2.1	-	11.4	13.9	18.8	0.8	28.8	-	23.6	
BINJULU	Bintulu	32.0	68.0	2.7	0.4	-	0.5	10.1	1.6	2.1	10.5	17.1	55.0	
	Kemena	26.6	73.4	0.9	0.4	1.6	1.8	16.8	11.5	3.4	27.8	3.9	31.9	
	Sub-total	28.1	71.9	1.4	0.4	1.1	1.4	14.9	8.7	3.0	22.9	7.7	38.5	
MIRI	Miri North	6.6	93.4	3.4	25.8	0.4	0.4	2.8	5.9	-	7.6	-	53.7	
	Sibuti (1)	46.3	53.7	-	11.3	4.3	15.6	34.9	0.9	7.1	23.1	-	2.8	
	Miri-Suai	42.5	57.5	4.3	2.6	0.2	1.5	11.2	2.5	15.5	18.2	11.3	32.7	
	Sub-total (2)	30.5	69.5	3.2	7.4	0.6	2.3	10.1	2.7	9.9	14.2	6.7	29.7	
	Total (2)	24.2	75.8	1.8	3.5	0.5	5.4	12.8	10.3	4.6	22.0	4.5	30.0	

Note (1) Excludes the Lambir-Subis Development Area and its extension.
 (2) Total does not add up to 100 per cent because of the exclusion of Lambir-Subis Development Area.

TABLE I.6 LAND POSSIBLY SUITABLE FOR AGRICULTURAL DEVELOPMENT WITHIN LAND TENURE CLASSES IN THE STUDY AREA

Planning Unit	Planning Sub-unit	Mixed Zone		Native Area		Native Customary		Interior Area		Reserves	
		Per cent suitable	Per cent suitable	Per cent suitable	Per cent suitable	Per cent suitable	Per cent suitable	Per cent suitable	Per cent suitable	Per cent suitable	Per cent suitable
BARAM	Bakong	13.3	-	-	53.0	5.9	-	-	-	-	-
	Marudi	21.3	-	-	34.8	-	-	1.3	-	-	1.3
	Long Lama	50.0	-	-	38.9	1.5	-	-	-	-	-
	Sub-total	22.9	-	-	42.4	2.8	-	-	-	-	0.2
BINTULU	Bintulu	88.2	-	-	86.1	16.8	-	-	-	-	23.8
	Kemena	72.8	46.8	-	59.4	10.9	-	-	-	-	10.8
	Sub-total	80.2	44.0	-	63.2	11.7	-	-	-	-	16.6
	Miri North	11.5	45.9	-	32.4	-	-	-	-	-	-
	Sibuti	-	21.4	-	97.4	23.4	-	-	-	-	-
	Niah-Suai	62.1	11.5	-	81.9	46.0	-	-	-	-	25.6
	Sub-total	30.2	19.1	-	79.1	40.9	-	-	-	-	18.4

APPENDIX II
POPULATION AND EMPLOYMENT

TABLE II.1 TOTAL POPULATION BY PLANNING UNITS AND SUB-UNITS, 1970 CENSUS

Planning Unit	Planning Sub-unit	Population	Per cent of total Study Area population
BARAM	Bakong	6 103	5.3
	Marudi	10 605	9.1
	Long Lama	10 599	9.1
	Sub-total	27 307	23.5
BINTULU	Bintulu/Similajau	15 536	12.3
	Kemena	14 319	13.3
	Sub-total	29 855	25.6
	MIRI	Miri North	36 909
Sibuti		10 748	9.2
Niah-Suai		11 620	10.0
Sub-total		59 277	50.9
	Study Area	116 439	100

TABLE II.2 AGE DISTRIBUTION PER THOUSAND POPULATION IN THE STUDY AREA, 1970 CENSUS

Planning Unit	Planning Sub-unit	Years		
		0 - 14	15 - 64	65 and over
BARAM	Bakong	452	522	26
	Marudi	471	499	30
	Long Lama	446	520	34
	Sub-total	457	512	31
BINTULU	Bintulu/Similajau	453	499	48
	Kemena	445	513	42
	Sub-total	449	506	45
	Miri North	424	541	35
MIRI	Sibuti	437	520	43
	Niah-Suai	436	531	33
	Sub-total	428	535	37
	Study Area	441	522	37

TABLE II.3 DISTRIBUTION OF URBAN AND RURAL POPULATIONS BY PLANNING UNITS, 1970 CENSUS

Planning Unit	Planning Sub-unit	Urban	Semi-urban	Rural	Total
BARAM	Bakong	-	-	6 103	6 103
	Marudi	3 910	-	6 695	10 605
	Long Lama	-	596	10 003	10 599
	Sub-total	3 910	596	22 801	27 307
BINTULU	Bintulu/Similajau	6 220	-	8 099	14 319
	Kemena	-	674	14 862	15 536
	Sub-total	6 220	674	22 961	29 855
	Miri North	27 021	-	9 888	36 909
	Sibuti	-	671	10 077	10 748
	Niah-Suai	-	1 970	9 650	11 620
	Sub-total	27 021	2 641	29 615	59 277
	Study Area	37 151	3 911	75 377	116 439

TABLE II.4 PERCENTAGE DISTRIBUTION OF URBAN AND RURAL POPULATIONS BY PLANNING UNITS, 1970 CENSUS

Planning Unit	Planning Sub-unit	Urban	Semi-urban	Rural	Total percentage
BARAM	Bakong	-	-	100	100
	Marudi	36.9	-	63.1	100
	Long Lama	-	5.6	94.4	100
	Sub-total	14.3	2.2	83.5	100
BINTULU	Bintulu/Similajau	43.4	-	56.6	100
	Kemena	-	4.3	95.7	100
	Sub-total	20.8	2.3	76.9	100
	Miri North	73.2	-	26.8	100
MIRI	Sibuti	-	6.2	93.8	100
	Niah-Suai	-	17.0	83.0	100
	Sub-total	45.6	4.4	50.0	100
	Study Area	31.9	3.4	64.7	100

TABLE II.5 TOTAL POPULATION AND RATE OF CHANGE IN SELECTED CENTRES

Settlement classification	Population		Per cent change 1960-1970	Annual rate of change 1960-1970 Per cent
	1960	1970		
	Urban areas			
Miri-Lutong	16 222	27 021	66.6	5.2
Bintulu	5 307	6 220	17.2	1.6
Marudi	2 663	3 910	46.8	3.9
Semi-urban areas				
Long Lama	496	596	20.2	1.8
Bekenu	737	671	-9.0	-0.9
Niah	576	925	60.6	4.8
Batu Niah	568	1 045	84.0	6.3
Kampong Tengku Abdul Rahman	new town	NA	-	-
Sebauh	867	674	-22.3	-2.1

TABLE II.6 DISTRIBUTION OF VARIOUS SIZES OF RURAL SETTLEMENTS IN THE STUDY AREA , 1970 CENSUS

Planning Unit	Planning Sub-unit	Rural settlements.			Total
		More than 500 persons	250-499 persons	Less than 249 persons	
BARAM	Bakong	-	8	22	30
	Marudi	1	6	23	30
	Long Lama	3	7	24	34
	Sub-total	4	21	69	94
BINWULU	Bintulu	-	-	5	5
	Kemena	1	3	17	21
	Sub-total	1	3	22	26
	Miri North	7	2	6	15
MIRI	Sibuti	4	13	11	28
	Niah-Suai	1	10	31	42
	Sub-total	12	25	48	85
	Study Area	17	49	139	205

TABLE II.7 OCCUPATION DISTRIBUTION BY SECTORS - STUDY AREA (1970 CENSUS)

Occupation sector	Planning Units												Study Area			
	Baram				Bintulu				Miri				Male	Female	Total	Per cent
	Male	Female	Total	Per cent	Male	Female	Total	Per cent	Male	Female	Total	Per cent				
Agricultural occupations	4 458	3 858	8 316	70.6	4 249	3 785	8 034	66.0	5 183	3 664	8 847	40.4	13 890	11 307	25 197	54.9
Forestry	697	5	702	6.0	616	8	624	5.1	1 139	6	1 145	5.2	2 452	19	2 471	5.4
Fishery	56	16	72	0.6	133	3	136	1.1	251	1	252	1.2	440	20	460	1.0
Mining (including oil)	62	9	71	0.6	9	-	9	0.1	124	-	124	0.6	195	9	204	0.5
Trade	228	87	315	2.7	293	78	371	3.1	903	216	1 119	5.1	1 424	381	1 805	3.9
Electricity and water	4	-	4	-	3	-	3	-	28	2	30	0.1	35	2	37	0.1
Banking and insurance	1	-	1	0.1	-	-	-	-	6	-	6	-	7	-	7	-
Transport	146	-	146	1.2	179	2	181	1.5	1 140	38	1 178	5.4	1 465	40	1 505	3.3
Public administration	61	2	63	0.5	72	1	73	0.6	608	5	613	2.8	741	8	749	1.6
Construction	53	3	56	0.5	68	5	73	0.6	590	25	615	2.8	711	33	744	1.6
Services	224	123	347	2.9	227	103	330	2.7	883	560	1 443	6.6	1 334	786	2 120	4.6
Manufacturing	232	13	245	2.1	406	24	430	3.5	1 860	96	1 956	8.9	2 498	133	2 631	5.8
Miscellaneous	130	12	142	1.2	107	14	121	1.0	763	306	1 069	4.9	1 000	332	1 332	2.9
Labourers not classified elsewhere	89	2	91	0.8	179	-	179	1.5	1 062	67	1 129	5.1	1 330	69	1 399	3.1
All sectors	6 441	4 130	10 571	-	6 541	4 023	10 564	-	14 540	4 986	19 526	-	27 522	13 139	40 661	-
Occupation not stated	714	482	1 196	10.2	996	616	1 612	13.2	1 327	1 066	2 393	10.9	3 037	2 184	5 201	11.3
Total	7 155	4 612	11 767	100.0	7 537	4 639	12 176	100.0	15 867	6 052	21 919	100.0	30 559	15 303	45 862	100.0

TABLE II.8 PERCENTAGE SHARE OF EMPLOYMENT BY SECTORS AND PLANNING UNITS IN THE STUDY AREA, 1970 CENSUS

Employment sector	Baram	Bintulu	Miri
Agricultural occupations	33.0	31.9	35.1
Forestry	28.4	25.3	46.3
Fishery	15.6	29.6	54.8
Trade	17.5	20.5	62.0
Mining (including oil)	34.8	4.4	60.8
Electricity and water	10.8	8.1	81.1
Banking and insurance	14.3	-	85.7
Transport	9.7	12.0	78.3
Public administration	8.4	9.7	81.9
Construction	7.5	9.8	82.7
Services	16.4	15.6	68.0
Manufacturing	9.3	16.3	74.4
Miscellaneous	10.7	9.1	80.2
Labourers not classified elsewhere	6.5	12.8	80.7
Occupation not stated	23.0	31.0	46.0
Total employment	25.6	26.6	47.8

TABLE II.9 PERCENTAGE OF MALES OCCUPIED IN EACH EMPLOYMENT SECTOR IN THE PLANNING UNITS AND STUDY AREA, 1970 CENSUS

Employment sector	Baram	Bintulu	Miri	Study Area
Agricultural occupations	53.6	52.9	58.6	55.1
Forestry	99.3	98.7	99.5	99.2
Fishery	77.8	97.8	99.6	95.6
Trade	72.4	79.0	80.7	78.9
Mining (including oil)	7.3	100	100	95.6
Electricity and water	100	100	93.3	94.6
Banking and insurance	100	-	100	100
Transport	100	98.9	96.8	97.3
Public administration	96.8	98.6	99.2	98.9
Construction	94.6	93.2	95.9	95.6
Services	64.6	68.8	61.2	62.9
Manufacturing	94.7	94.4	95.1	94.9
Miscellaneous	91.5	88.4	71.4	75.1
Labourers not classified elsewhere	97.8	100	94.1	95.1
Occupation not stated	59.7	61.8	55.5	58.4
Total employment	60.8	61.9	72.4	66.6

APPENDIX III

ECONOMIC CONTRIBUTION TO GROSS NATIONAL PRODUCT (GNP) BY SECTORS

III.1 GENERAL

In studying the economic status of Malaysia and Sarawak, the concepts of Gross National Product (GNP) and Gross Regional Product (GRP) have been used. These concepts as well as Gross Domestic Product (GDP) are in general use in economic and social planning and have been used in the Second Malaysia Plan; they, therefore, need no further explanation here.

The estimates of GDP and GRP are usually calculated for each sector using all data available. Often the information from different statistical sources do not agree, and total census figures must commonly be compared with sample surveys. The present GRP estimate for the Study Area is based on production statistics, trade statistics, land use assumptions, and surveys on use of labour and raw materials. Although the figures presented have the appearance of a rather high degree of specification and accuracy, the uncertainty involved in their compilation must be realised. Though it is equal for both Sarawak and the Study Area. The product estimates of certain sectors might be overvalued; for instance, agriculture and forestry may include certain values for local processing and marketing, especially on products for export.

Beside these minor sources of error there are more obvious ones in the trade and mining sectors. The trade sector is calculated on the basis of certain overhead margins or additions to the buying price of the products sold. These uncertain margins are multiplied by estimated factors for import, export and local production; the margins for both retail and wholesale trade are based on local experience and can vary from place to place.

The mining sector and its associated industries are completely dominated by the size of the local oil production enterprise within which the prices for crude oil (imported and exported) and refined oil together with the costs of materials used are all subject to uncertainty. They may not necessarily reflect economic costs and price levels because to some extent they are based on internal calculation and account units.

The calculations made by the Consultants were compared with unpublished calculations made by the Department of Statistics in Kuala Lumpur. The differences found were insignificant, therefore, those of the Department

of Statistics have been used in this report. In the following table a rounding-off of sector figures into million dollars has not been done because of the relatively small number of sectors in the Study Area.

The primary production character of Sarawak facilitates a break-down of GDP between export production and production for domestic use. The balance of trade for 1970 has been calculated as follows:-

	Receipt	Payment
	in thousand dollars	
Sarawak		
Merchandise		
exports f.o.b.	671 300	
import c.i.f.		659 600
Non factor services	68 700	89 400
Factor income payments	9 000	23 000
Total	749 000	772 000
Fourth Division		
Merchandise		
export f.o.b.	426 900	
import c.i.f.		301 500
Non factor services	6 000	15 000
Factor income payments	1 000	3 000
Total	433 900	319 500

To obtain a realistic picture of the Sarawak and Study Area external trade the final trade data needs to be adjusted for the contribution of re-exports. A considerable part of this re-export consists of oil product because these make up an overwhelming part of the foreign trade, it is necessary to separate the re-export trade from the crude oil trade. The latter might not have the impact on the economy that the monetary size of the trade indicates.

Sarawak - Study Area	Imports	Exports
	in thousand dollars	
Products		
crude oil	276 200	202 500
refined	16 000	124 200
	292 200	326 700
Hereof direct re-export		169 900
Other re-exported products mainly from Kuching and Sibu ports		6 000

It can be assumed that a major part of imports (75 per cent) of fertilisers, insecticides/herbicides and wood preservatives were used for export crops; they are, therefore, included in the value of the exports.

The import part of total exports could, therefore, be estimated as follows:-

Sarawak	Thousand dollars
Crude plus other oil direct re-exports	169 900
Refined oil exports (contents of imported crude)	122 300
Other re-exports	6 000
Imported agricultural exports imports	9 600
Total import part of exports	307 800

Domestically produced exports of goods and non factor services would then be:-

<u>Sarawak</u>		in thousand dollar
Total exports		749 00
<u>less</u> non-retained imports		307 80
Domestically produced exports		441 20
<u>Study Area</u>		
Total exports		433 90
<u>less</u> non-retained imports		
oil product	277 300	
agriculture and forestry	1 800	279 10
Domestically produced exports		154 80

III.2 AGRICULTURE

The calculation of the agricultural contribution to the GRP is based on two kinds of information: the trade and stock statistics, the estimated average yields. The trade statistics are unreliable because the internal trade is not registered. This means that whenever Sibü or Kuching merchants buy rubber or pepper, for example for export, these goods are not registered as exports from the Study Area but only from the export port (Kuching or Sibü). Consequently it is necessary to supplement the trade statistics with estimates of total production based on average yields and acreages in production.

The estimates for the GRP for the agricultural sector is divided into the contribution made to the total value-added by the main products.

III.2.1 Rubber

The estimated area of low yielding rubber was 15 000 acres with an average yield of 300 pounds per acre. Of this acreage it was estimated that only one-third was actually tapped.

Mature high yielding rubber was estimated to cover 20 000 acres and have a potential average yield of about 600 pounds per acre. Of this acreage it was estimated that 25 per cent was tapped. The total

production was thus approximately 2 000 tons.

(1) In addition, the production value of planting and replanting was calculated. This amount has, in accordance with West Malaysian experience, been reduced by 25 per cent to arrive at the net value-added.

	Thousand dollars
Rubber f.o.b. value	2 275 ⁽¹⁾
<u>less</u> duties (5 per cent export duty + 2 per cent cess on f.o.b. price)	155
	<hr/> 2 090
<u>less</u> agents fee and grading 5 per cent	105
	<hr/> 1 985
<u>less</u> transport to export agents (average transport distance 50 miles at \$0.30 per ton miles)	30
	<hr/>
VA (considering collectors and smoke house's product as part of agriculture)	1 955
<u>plus</u> value of planting and replanting (West Malaysia reduction factor = $\frac{VA}{\text{Value of planting}} = 0.75$)	525
	<hr/> 2 480
Total VA rubber	<hr/>

Note (1) Of this \$2 275 000 estimate of total f.o.b. value of rubber production only \$850 000 worth was exported via ports in Fourth Division.

	dollars
Miri -	200 000
Marudi -	650 000
Bintulu -	-

III.2.2 Pepper

The area bearing pepper in the Study Area was estimated at 600 acres and the production from these amounted to 1 070 tons black and white pepper based on the assumption that the average yield was 100 piculs or 5.95 tons of berries per acre. The total berry production was assumed to be processed into 60 per cent black and 40 per cent white pepper. The total f.o.b. value was \$2 506 000 based on an average f.o.b. price of \$2 340 per ton (for black/white pepper). The calculation of VA is:-

	Thousand dollars
Pepper f.o.b. value	2 505 ⁽¹⁾
<u>less</u> duties	
(8.5 per cent based on Customs tariff App H and I)	215
	<hr/> 2 290
<u>less</u> export agents fee including some processing	135
	<hr/> 2 155
less transport and collecting (average transport 15 miles at \$0.15 per ton miles) plus other inputs	275
	<hr/> 1 880

Note (1) Of the estimated f.o.b. value of the pepper production \$330 000 were exported through ports in Fourth Division.

	dollars
Miri	- 313 000
Marudi	- 17 000
Bintulu	- -

III.2.3 Rice

The production value of rice is based on estimates of acreages of hill and wet padi in the area in 1970. Areas bearing hill padi were estimated at 22 000 acres while areas with wet padi amounted to 16 500. Assumed average yields were 1 300 pounds per acre and 1 900 pounds per acre for hill and wet padi respectively (based on sample cuttings done by the Economics Branch of the Agricultural Department in Kuching). The total production calculated was approximately 26 700 tons. The total value was approximately \$8 074 000 based on an average price for both hill and wet padi of \$18 per picul or \$302 per ton. The VA calculation is simple.

	Thousand dollars
Rice production value	8 075
<u>less</u> input and marketing estimated at 8 per cent	645
	<hr/> 7 430

III.2.4 Coconut

The areas with commercial coconuts in 1970 was estimated at 2 000 acres, of these around 500 acres were not bearing. With a calculated coconut-yield of 0.5 tons per acre, the estimated production was 750 tons. The value was \$260 000 at an average price of \$20.50 per picul or \$345 per ton.

Transport costs were estimated on the average distance from production site to trade centre. As a major part of this transport is handled on trucks and large vessels a ton/mile price of \$0.15 has been considered reasonable. This goes for pepper as well, while rubber transport (launch fares) have been calculated on a \$0.30 ton/mile base.

	Thousand dollars
Coconut production value	260
<u>less</u> input and marketing (8 per cent)	20
<u>less</u> transport and collecting (average transport 15 miles at \$0.15 per ton mile) + other inputs	25
	215
<u>plus</u> VA of planting and replanting	85
<u>VA</u>	<u>0.75</u>
Value of planting	85
Total VA coconut	300

III.2.5 Palm oil

The production of palm oil has not yet commenced and the entire VA figure in this industry is, therefore, based on the planting activities.

The VA of preparing the land and of planting oil palms is based on registered local costs, then slightly reduced in accordance with West Malaysian experiences.

	Thousand dollars
Palm oil production value	-
VA of planting (1 800 acres)	540
<u>VA</u>	<u>0.75</u>
Value of planting	540
Total VA palm oil	540

III.2.6 Sago

The calculation of the VA in sago production is limited to the sago included in the manufacturing of sago flour.

The local production and consumption of sago is considered negligible. Most sago consumers in the Fourth Division reside outside the Study Area.

Thousand dollars

Sago production included in manufacturing	
<u>less</u> towing	35
Total VA sago	<u>35</u>

Local sago consumption is assessed as negligible.

III.2.7 Animal production

The assessment of the value of livestock and poultry is made complicated by the fact that estimates of, for example, poultry production and numbers is difficult, because almost all agricultural households and many urban families have their own subsistence production of these animals. Consequently the production value must be calculated partly as an assumption of the subsistence production and partly based on the registered slaughterings and estimated stock increases.

The total animal production estimate amounts to \$6.7 mn of which a substantial part is considered as reared and consumed in subsistence economy households.

Products to the value of \$2.6 mn - have been calculated as being reared under such circumstances that miscellaneous non-sector input has been included in the value of the animals.

Thousand dollars

Livestock and poultry production = slaughtered
plus stock increase

Cattle	110
Buffaloes	380
Pigs - commercial	3 745
ulu	615
Poultry	755
Eggs	1 090

Total production market value 6 695

less trade margin assessed at 25 per cent 1 675

Produces value 5 020

less miscellaneous inputs assessed at 20 per cent of
2 600 640

Total VA 4 380

III.2.8 Other Agricultural Products

Products not specified above include; subsistence farming/other than padi and livestock, the growing of vegetables as cash crops and the income from the collection of illipe nuts.

The value of the illipe nut production can be taken as the entire exports recorded because no nuts are processed locally but the problems concerning the outlet port complicates the calculations.

Other products from the agricultural sector are estimated on market reports and consumption surveys. The VA is calculated as follows:-

Thousand dollars

Other agriculture production	
illipe nuts	100
miscellaneous	400
<u>less</u> miscellaneous input and trading margin	500
(15 per cent)	75
Total VA	425

III.3 FORESTRY

The forestry industry, the most important in the Study Area and in Sarawak, is estimated to contribute almost 35 per cent of the GRP, but because of inconsistencies between different statistical sources, a certain reservation as to the accuracy of the figures should be observed.

The calculated VA in the forestry sector was limited to the logging industry while further processing was treated under the manufacturing industries. The value of production was estimated for locally processed timber and for export logs; only 10 to 15 per cent is processed locally while the rest was exported. The transport costs for the export logs were calculated on the basis of estimated standard costs for rafting, towing etc. Deductions were made from the production value of input costs of tractors, machinery, fuel and construction, which are not of forestry origin. The VA calculations are:-

	Forestry	Thousand dollars
Market value of log input in sawn timber		4 000
<u>less</u> transport to sawmills		275
		<hr/> 3 725
f.o.b. value of logs exported		84 000
		<hr/> 87 725
<u>less</u> input, fuel, machinery etc.		6 900
<u>less</u> 10 per cent to wholesalers and export agents		8 885
<u>less</u> transport to shipside		5 600
<u>less</u> royalties, duties etc.		4 450
		<hr/> 62 000

III.4 FISHERY

III.4.1 Fresh Water

The VA of the fresh water fish production is based on the estimated number and size of fish ponds in the Study Area and estimates of the number of rural population employed in full or part-time river fishery.

The estimated total number of ponds was 1 292 covering 110.5 acres. With an average output of 2 000 katis per acre per year and a price of \$2.00 per kati, the value of production was estimated at \$440 000. The value of river fishery was estimated at \$160 000.

The VA of pond-construction was calculated using several cost analyses for specific ponds in Sarawak.

	Thousand dollars
Fish production total value	600
<u>less</u> trade margin (15 per cent of 440 000)	<u>65</u>
Produce value	535
<u>plus</u> construction of ponds (estimated at \$5 000 per acre - \$1 000 per acre materials)	<u>55</u>
Total VA (fresh water fish)	<u>590</u>

III.4.2 Sea

The production value of the sea fishery was based on the reports for fish landed in Miri and Bintulu (the figures are not considered reliable, but are the only ones available), and the sales-price information (which is extremely detailed and thus considerably facilitates the calculation).

Inputs have been estimated at 30 per cent of production value following to investigations of the raw materials used including nets, fuel etc. The VA calculations are:-

	Thousand dollars
Sea fishery production market value	2 960
<u>less</u> marketing (15 per cent)	<u>440</u>
Production value	2 520
<u>less</u> inputs petrol, gear	<u>705</u>
Total VA sea fishery	<u>1 815</u>

III.5 MINING

III.5.1 Glass Sand

The value of production of glass sand in 1970 has been estimated at \$30 000. However, since the mining-licence was issued in 1969 no regular production has taken place and only a minor part of the production has

actually been traded. The VA is estimated as follows:-

Thousand dollars

Glass sand production	30
<u>less</u> input and royalties	<u>10</u>
Total VA glass sand	<u>20</u>

III.5.2 Quarry

The production of stone from quarries in the Study Area has been a major input in the local road construction work. The value of the production has been calculated based on information on output from the quarries and the ton-price accepted by PWD for local road material. The production input is mainly fuel and machinery for the quarry equipment.

Thousand dollars

Quarries production	465
<u>less</u> input (10 per cent)	<u>45</u>
Total VA quarries	<u>420</u>

III.5.3 Oil

The evaluation of the economic role of oil production in the Study Area is split between the mining sector and the manufacturing sector. Consequently only the exploration part of the oil-industry is treated here while the refining industry is considered under manufacturing industries.

The production value of oil exploitation was based on official production and trade statistics. It is well known that costs and prices within the oil trade are settled as internal accounting units, thus the value quoted does not necessarily reflect real economic values. However, this was the only information available, and the VA estimates have been calculated accordingly.

The input/output ratio in the oil exploitation process is hard to estimate, but an overwhelming part of the input is imported, hence a deduction of 20 per cent from production value has been made. This corresponds to experiences in other oil producing countries but might be a slight under-estimation here because the off-shore drilling is normally considered to be more costly in both exploration

and exploitation phases than corresponding on-shore operations. The VA calculations are:-

	Thousand dollars
Oil production value	37 800
<u>less</u> input (20 per cent)	<u>7 560</u>
Oil VA	<u>30 240</u>
Total VA mining (glass sand, quarrying and oil)	<u>30 680</u>

III.6 MANUFACTURING

The analysis of the manufacturing sector is mainly based on 1968 and 1969 information from the Statistical Department's survey of manufacturing industries though complementary information has been obtained, which has made a 1970 estimate possible.

In 1970 in the Study Area, there were 58 manufacturing establishments with more than five workers, and 236 with less than five workers. Although the registration of industries may be incomplete it has been the sole basis for the calculated production figures in the manufacturing industries. This amounts to a total of \$188 860 000. The total input amounts to \$156 690 000, being a net output value of \$32 170 000 which is considered equal to the VA. Of this the petro-chemical industry accounts for 78 per cent and the wood manufacturing for almost 12 per cent. Details of output and labour for the specific industries is shown in Table III.1.

III.7 CONSTRUCTION

The calculations of the production value of the building and construction sector was based on the Construction Survey 1970 carried out by the Department of Statistics in Kuching. The value-added in this sector consists partly of the value of work done by principal contractors and partly of that work done by sub-contractors. Because this operates both ways, that is parts of the works of principal contracts are carried out by sub-contractors, a certain risk of double-counting exists. In 1970, 52 enterprises were registered in the construction industries, but the present VA estimates are based on the output of only 37 firms because the remainder did not carry out any contract work in 1970.

The VA is calculated on the assumption that all raw materials are created outside the construction sector and that these would be either

imported or accounted for in other sub-sectors. Of the total production in the construction sector only 18 per cent was carried out for the public sector, while the remaining 82 per cent was private contracted work. PWD work has been treated under the public sectors. The impact of construction work for the oil industry is not clear; it seems, however, as if most of the extensive construction work in connection with drilling operations is done outside Sarawak. The VA calculations are:-

Construction	Thousand dollars
Value of work done	4 255
<u>less</u> materials consumed and other inputs	<u>2 330</u>
Total VA of production	<u>1 925</u>

III.8 PUBLIC UTILITIES

The production of electricity and drinking water was carried out by both the public and the private sector in the Study Area. The Public Works Department is responsible for both construction and operation of drinking water facilities, while electricity is produced by the para-state-organisation Sarawak Electricity Supply Corporation. At the same time, Sarawak Shell Berhad (SSB) has constructed its own water and electricity supplies to certain parts of Miri, and these double distribution net works have, to some extent, prevented an optimal utilisation of the public plants.

Gas is supplied to Miri District Council (MDC) by SSB at a reasonably low cost because no other use than local consumption could be found for this by-product of the oil industry.

The values of production of water and power from the public plants have been evaluated at their accounted cost price, while the SSB production for public use has been accounted at the price which SSB sells to MDC. Input calculations were based on SESCO figures and a general 15 per cent reduction of the production value.

TABLE III.1 MANUFACTURING INDUSTRIES

Manufacturing industries	Number of establishments	Value of output		Value of materials consumed and work done by others		Net value of output = VA		Unpaid workers (1)		Paid workers		Salaries, wages, bonuses, etc. Thousand dollars
		Thousand dollars	Per cent	Thousand dollars	Per cent	Full-time	Part-time	Full-time	Part-time			
										Thousand dollars	Per cent	
Food	136	2 714	2.5	1 902	812	2.5	82	2	207	-	327	
Clothing and footwear	47	708	1.2	330	378	1.2	47	-	47	-	85	
Food	18	8 221	11.5	4 542	3 679	11.5	-	-	908	1	2 129	
Furniture and fixtures	18	540	0.8	297	243	0.8	22	-	63	-	146	
Rubber	3	68	-	43	25	-	2	-	3	-	10	
Petro-chemical	1	172 378	78.3	147 170	25 209	78.3	-	-	648	-	5 247	
Non-metallic minerals except petroleum	4	172	0.2	96	76	0.2	2	2	33	-	38	
Metal products	7	277	0.3	173	104	0.3	2	-	47	-	58	
Transport equipment	17	1 878	2.6	1 043	835	2.6	9	-	226	-	578	
Others	43	1 903	2.5	1 908	806	2.5	41	-	136	3	313	
Total	294	188 860	100.0	156 694	32 166	100.0	207	4	2 318	4	8 931	

Note (1) Proprietors, members of proprietors household etc.

VA calculations were:-

	Thousand dollars
Electricity + water + gas	
SESCO units sold at value	1 205
<u>less</u> input (fuel etc.)	160
SESCO VA	<u>1 045</u>
Shell electricity production for Lutong (refining + household) + gas delivery Miri	3 100
PWD water production value	105
<u>less</u> input (15 per cent)	15
PWD water VA	<u>90</u>
Total VA	<u>4 235</u>

III.9 TRANSPORT AND COMMUNICATION

Only the river/sea and the land modes of transport are considered here. Regional air traffic is not considered relevant in this connection.

While the VA has been calculated for all river traffic the sea-traffic has had to be largely omitted because statistics on the subject are extremely unreliable. However, this is not particularly serious because a major part of the inter-regional sea trade is carried out by non-Study Area enterprises. The information on river and road-transport is also unreliable but the VA has been calculated using sample surveys of the total trade and the calculated operating costs.

The calculations were divided into timber transport and other transport because information on the heavy log traffic can be obtained with greater accuracy; the sources and outflow of timber are known and the quantities recorded by both the Forestry and Statistical Departments.

Communication is dealt with in accordance with methods usually applied to the public administration sector. The product value of communication is difficult to evaluate but the salaries and wages paid to communication personnel within the Study Area have been used as a calculation basis. According to West Malaysian experiences the ratio between wages and total VA is 1:1.65 and this ratio has been applied in the calculations.

Transport and communication	Thousand dollars
<u>Transport</u>	
launch and tug operations	4 215
land transport - timber	675
other.	1 200
	<hr/>
Transport VA	6 090
<u>Communication</u>	
Telegram and postal service salaries and wages paid	650
Ratio of VA to wages 1:1.65	
Communication VA	1 075
	<hr/>
Total sector VA	7 165
	<hr/>

III.10 TRADE

There is usually considerable uncertainty in the calculation of the VA in the trade sector, because the different statistical sources are either not comparable or are non-existent and trade in the Study Area is no exception. However, the present calculations of trade VA were carried out in accordance with the methods prescribed by the West Malaysian Economic Planning Unit (EPU) using information obtained from foreign trade statistics, custom duties and interviews with informed persons on trade margins. Often the quality of the information was not good and the figures should be considered with reservation.

The VA calculations were split into foreign and domestic trade. The foreign trade is easily evaluated from the external trade statistics. There are, however, still problems concerning the transshipment ports through which considerable quantities of import goods are brought via ports outside the Study Area; these movements of goods are not locally recorded and estimates have had to be made. A further division in the VA calculations was made to separate the wholesale and wholesale-retail trades because trade margins vary considerably between the two kinds of trade. The margins have been assessed partly on EPU estimates and partly on local surveys but the figures used were themselves averaged estimates because the variations even within specific trade lines are substantial.

The domestic trade was estimated on the basis of the production within all primary sectors of the economy and by reducing the total product figures by the estimated self-consumption. The quantities of traded goods were estimated but re-trading through several links of middlemen has not been evaluated.

The problems concerning the specific chinese-launch-trade is difficult to assess because trade margins might cover both trade, transport and financing aspects of "launch-economy".

Trade	Thousand dollars
<u>Import - export, wholesale</u>	
Exports excluding oil products	96 000
<u>less</u> export duties	<u>4 450</u>
	91 650
Assessing trade margin at 7 per cent (0.07 x 91 650)	6 415
Imports excluding oil products	<u>58 000</u>
Assessing trade margin at 5 per cent (0.05 x 58 000)	2 900
<u>less</u> inputs assessed at 25 per cent	<u>2 330</u>
	<u>570</u>
Total foreign trade VA	6 985
<u>Import-retail</u>	
Retail on imports assessed trade margin at 10 per cent (58 000 + 2 900) 0.10	<u>6 090</u>
<u>Wholesale and retail of marketed domestic products</u>	
Agricultural product - crops	7 765
livestock	<u>4 300</u>
Total product	12 065
Assuming 70 per cent self-consumption the traded agricultural product is	3 620
fishery product is	2 705
Assuming 25 per cent self-consumption the trade value is	2 025
Manufacturing:	
Value of manufacturing production (excluding oil-refining)	16 480
<u>less</u> exports	6 400
Value of manufactured product for domestic market	<u>10 080</u>
Total domestic marketed production	15 725
Assessed domestic product trade margin 20 per cent mark-up on domestic products (15 725 x 0.20)	3 145
mark-up on total domestic trade (3 145 + 6 090)	9 235
<u>less</u> input (general costs) assessed at 18 per cent	<u>1 600</u>
Domestic trade VA	7 575
Foreign trade VA	<u>6 985</u>
Total trade VA	<u>14 560</u>

III.11 BANKING AND INSURANCE

Only rough calculation of the VA in the financial sector can be undertaken because data are usually not accessible, and the method of calculation must vary with the sources available. The VA could perhaps be estimated as the sum of wages and other income generated in the sector, but to calculate this would require detailed information and the knowledge of the VA on the wage-plus-service-ratio in the sector. Because these are difficult to obtain another method has been used.

The basis for this VA estimate was the interest margins in the financial sector. This information was collected from relevant companies in the sector regarding outstanding loans, advances, investments and deposits. It was then adjusted after comparison with the existing interest structure to obtain a final VA figure.

Because the total deposits in all the financial institutions studied greatly exceeded the loans and overdrafts an alternative investment calculation at alternative interests was applied.

Banking and insurance	Thousand dollars
Banking, assessed VA based on the calculated interest marginals	2 640
Insurance, assess VA based on amounts of property insured (x 0.001)	150
Total VA banking and insurance	<u>2 790</u>

III.12 OWNERSHIP OF DWELLING

Local data were not available for the calculation of the value of ownerships of dwellings. For reason the VA of this sector has been estimated on the basis of the Sarawak-calculations carried out by the Department of Statistics in Kuala Lumpur.

To obtain an estimate for the Study Area the Sarawak figure has been related to:-

- a) the population; and
- b) the GDP of all other sectors than the mentioned, whereby an estimate has been arrived at.

Ownership of Dwelling ("O of D")

VA of ownership of dwelling is estimated on the basis of the estimates for Sarawak as a whole (1970 = \$45 mn).

The Study Area (SA) estimates are:-

The ratio total population in Study Area to total population in Sarawak ($\frac{115}{975} = 0.12$) modified by the ratio (GDP - "O of D" of SA)

(GDP - "O of D" of Sarawak) ($\frac{190}{839} = 0.23$)

That is total VA of "O of D" = \$8 100.

III.13 PUBLIC ADMINISTRATION

The calculation of the VA of the public administration sector is based on the amount of personal emoluments paid to civil servants and other public employees in the Study Area.

From this calculation civil servants employed with Education, Health Departments and Post and Telecommunication have been excluded as they are elsewhere accounted for.

The assessed VA on the wage-ratio was adopted from the EPU estimates on West Malaysian VA ratios.

Public administration	Thousand dollars
Total personal emoluments in Fourth Division excluding Education, Health and Post and Telecommunication	2 925
Assessed ratio VA to personal emoluments 1.22, VA in public administration $1.22 \times 2 925$	<u>3 570</u>

III.14 OTHER SERVICES

The ratios between VA and wages and/or expenses in this sector are based on EPU estimates. The information has been obtained locally and can be considered reliable as far as Education, Health and Welfare is concerned.

For the private service sectors the figures are less reliable because some figures are calculated from the number of shops and persons employed, while others are arrived at by sample surveys.

Services		Thousand dollars
<u>Education</u> public expenses excluding investments		1 050
Private expenses excluding investments		2 245
		<u>3 295</u>
Ratio : expenses : VA estimated at 1:1.1 VA		
= 3 295 x 1.1		3 625
<u>Health and Welfare</u>		
Health public expenses excluding investment and materials		1 210
Welfare		<u>015</u>
Ratio expenses : VA estimated at 1:1.2 VA		
= 1 225 x 1.2		1 470
Health, private: doctors and dentists VA		100
<u>Other services</u>		
Religious, recreational business etc.		1 500
Personal (barbers, restaurants, entertainment etc.)		<u>3 400</u>
Total VA services		<u>10 095</u>

IV.1 TYPES OF REVENUES COLLECTED BY FEDERAL DEPARTMENTS

IV.1.1 INLAND REVENUE

1.1.1 Corporation Profits Tax

1.1.2 Business Profits Tax

1.1.3 Salaries Tax

IV.1.2 ROYAL CUSTOMS AND EXCISE

1.2.1 Export duties on rubber, pepper and others.

1.2.2 Import duties on spirits and wines, textiles and apparels, tobaccos and cigarettes, liquors, sugar and others.

1.2.3 Other Charges such as:

a) Overtime charges.

b) Storage rent and transshipment fees.

c) Compounding fee.

d) Fines and forfeiture.

e) Sales of customs farms.

f) Sales of customs tariff book.

g) Certificate of landing fee.

h) Sales of confiscated goods.

i) Port clearance fee.

j) Miscellaneous fee.

1.2.4 Excise duties.

1.2.5 Export duties on timber, and forest produce.

1.2.6 Import duties on petroleum products and excise duties on petroleum products.

1.2.7 Warehouse license fees.

IV.1.3 MARINE

1.3.1 Earnings of government launch.

1.3.2 Earnings from landing craft.

1.3.3 Earnings of stone carriers.

1.3.4 Miscellaneous fees.

1.3.5 License fees.

1.3.6 Wharf rent.

1.3.7 Stamp fees.

1.3.8 Contribution from buoys and lights seconded staff.

- IV.1.4 TELECOMMUNICATION
 - 1.4.1 Telephone trunk calls.
 - 1.4.2 Telephone rental.
 - 1.4.3 Telegram charges.
 - 1.4.4 Telegraphic address.
 - 1.4.5 Radio licences.
 - 1.4.6 Maintenance charges of exchange sets and also repairs.
 - 1.4.7 Telex services to private persons.
 - 1.4.8 Licences on telex services operated by firms such as Malaysia Airline System, Shell, Tractor Malaysia etc.
- IV.1.5 POSTAL SERVICES
 - 1.5.1 Stamp sales.
 - 1.5.2 Commission on services rendered to employees provident fund, social welfare lottery, toto etc.
 - 1.5.3 Commission on other services.
 - 1.5.4 Charges on private letter services.
 - 1.5.5 Post Office Savings Bank operation.
- IV.1.6 MEDICAL AND HEALTH
 - 1.6.1 Fees and Sales of Medicine:
 - a) Hospital charges.
 - b) Dental charges.
 - c) Miscellaneous charges.
 - d) Out patient departmental charges.
- IV.1.7 IMMIGRATION
 - 1.7.1 Malaysia passports and other travelling documents fees.
 - 1.7.2 Landing permits.
- IV.1.8 LABOUR
 - 1.8.1 Employment permits.
- IV.1.9 EDUCATION
 - 1.9.1 Fees from government schools.
- IV.1.10 CIVIL AVIATION
 - 1.10.1 Airport fee.
 - 1.10.2 Landing fee.
 - 1.10.3 Night parking fee.
 - 1.10.4 Rent charges.
- IV.1.11 JUDICIAL

1.11.1 Court fines and forfeitures.

1.11.2 Court fees.

The following is a quotation from the Constitution of Malaysia:

IV.2 TENTH SCHEDULE GRANTS AND SOURCES OF REVENUE ASSIGNED TO STATES

IV.2.1 PART I : CAPITATION GRANT

1.(1) The Capitation Grant payable to each State in respect of a financial year shall be at the following rates:

- (a) for the first 50 000 persons at the rate of \$15 per person;
- (b) for the next 200 000 persons at a rate of \$10 per person;
- (c) for the remainder at the rate of \$4 per person

and shall be based on the population of the State as determined at the last census taken before the beginning of the preceding financial year.

IV.2.2 PART II : STATE ROAD GRANT

2. The State Road Grant payable to each of the States of Malaya in respect of a financial year shall be calculated by multiplying -

- (a) the average cost to a State of maintaining a mile of State Road, including the cost of repairing and maintaining any bridges, viaducts or culverts forming part thereof or connected therewith, at the minimum standard determined for State roads in those States by the Federal Government after consultation with the National Finance Council; by
- (b) so much of the mileage of State roads in that State as qualifies for grant.

3. For the purposes of Section 2 the mileage of State Roads in a State shall be taken to be that mileage as on the thirty-first day of December of the basis year, and the average mentioned in paragraph (a) of that section shall be taken to be the average throughout the States of Malaya in the basis year.

4. A length of state road if it is actually maintained by the Public Work Department of the State at or above the minimum standard mentioned in section 2 (a) and a length of any road within the limit of a local authority if such road is certified by the Public Work Department of the State as coming within the qualifying standard and maintained at or above the minimum standard as mentioned in section 2 (a) qualify for grant; except that any length not qualifying for grant in the preceding financial year qualifies for grant only if the Federal Government has agreed to its qualifying.

5. In this part of this Schedule -

- (a) "State Road" means any public road other than a Federal road to which the public has access;
- (b) "basis year" means the financial year beginning two years earlier than the financial year in respect of which the grant is made.

6.(1) The State road grant payable to Sabah or Sarawak shall, in each of the years 1964 and 1965, be payable at the rate of \$4 500 a mile in respect of a mileage in Sabah of 1,151 miles and in Sarawak of such amount as may be agreed between the Federal and State Governments.

(2) Thereafter section 2 to 5 shall apply to the State road grant so payable with the following modifications:

- (a) the average cost and minimum standard mentioned in section 2 (a) shall be respectively the average in the State and the minimum standard determined for State roads in the State; and
- (b) any length of road maintained by a local authority at the expense of the State shall be treated as maintained by the Public Work Department of the State.

IV.2.3 PART III: SOURCES OF REVENUE ASSIGNED TO STATES

- (1) Revenue from toddy shops.
- (2) Revenue from lands, mines and forests.
- (3) Revenue from licences other than those connected with mechanically propelled vehicles, electrical installations and registration of businesses.
- (4) Entertainments duty.
- (5) Fees in courts other than Federal Courts.
- (6) Fees and receipts in respect of specific Services rendered by Departments of State Governments.
- (7) Revenue of town boards, town Councils, rural boards, local councils and similar local authorities other than -
 - (a) municipalities established under Municipal Ordinance;
 - (b) those town boards, town Councils, rural boards, local councils and similar local authorities which have power under written law to retain their revenues and control the spending thereof.
- (8) Receipts in respect of water supplies, including water rates.
- (9) Rents on State property.

- (10) Interest on State balances.
- (11) Receipts from land Sales and sales of State property.
- (12) Fines and Forfeitures in courts other than Federal Courts.
- (13) Zahat, Fitrah and Bait-ul-Mal and similar Muslim revenue.
- (14) Treasure trove.

IV.2.4 PART IV : SPECIAL GRANTS TO BORNEO STATES

1.(1) In the case of Sarawak a grant of \$5 800,000 in each year.

(2) In the case of Sarawak, a grant of which the amount in 1964 and each of the four following years shall be respectively \$3.5 mn, \$7 mn, \$11.5 mn, \$16 mn, and \$12 mn, and in later years shall be fixed on a review under Article 112D of the Federal Constitution.

2.(1) In the case of Sabah, a grant of an amount equal in each year to two-fifths of the amount by which the net revenue derived by the Federation from Sabah exceeds the net revenue which would have been so derived in the year 1963 if -

- (a) the Malaysia Act had been in operation in that year as in the year 1964; and
- (b) the net revenue for the year 1963 were calculated without regard to any alteration of any tax a fee made on or after Malaysia Day; ("net revenue" meaning for this purpose the revenue which accrues to the Federation, less the amounts received by the State in respect of assignments of that revenue).

3. In either case, for any year before 1974 and, if at the beginning of 1974 the Legislature of the State has power to make laws with respect to the carriage of passengers and goods by land or to mechanically propelled road vehicles, then during the continuance of that power, a grant equal to the cost to the State in the year of the State road transport department.

IV.2.5 PART V : ADDITIONAL SOURCES OF REVENUE ASSIGNED TO BORNEO STATES

(1) Import duty and excise duty on petroleum products.

(2) Export duty on timber and other forest product.

(3) So long as the royalty levied by the State on any mineral chargeable with export duty other than tin (but including mineral oils) does not amount to 10 per cent ad valorem calculated as for export duty, export duty on that mineral on such part of the export duty as makes the total of royalty and duty on exported mineral up to 10 per cent ad valorem so calculated.

(4) In the case of Sabah, so long as medicine and health remains an item in the Concument List and expenses in respect of that item are borne by the State, 30 per cent of all customs revenue other than that in respect of the duties mentioned in Section 1, 2 and 3.

(5) For any year before 1974 and, if at the beginning of 1974 the Legislature of the State has power to make laws with respect to the carriage of passengers and goods by land or with respect to mechanically propelled road vehicles or licenses connected with those vehicles, then during the continuance of that power, fees from such licenses.

(6) For any year before 1974, and if at the beginning of 1974 the Legislature of the State has power to make laws with respect to the registration of mechanically propelled vehicles, then during the continuance of that power, fees from the registration of such vehicles.

(7) State sales taxes.

(8) Fees and dues from ports and harbours other than Federal ports and harbours.

IV.3 TYPES OF REVENUE COLLECTED BY STATE DEPARTMENTS

IV.3.1 PUBLIC WORKS

3.1.1 Bus services.

3.1.2 Ferry services (discontinued).

3.1.3 Public Works Department (PWD).

3.1.4 Water sales.

3.1.5 Gas sales.

3.1.6 On Cost PWD Stores.

3.1.7 Maintenance of service quarters compound.

IV.3.2 LAND AND SURVEY

3.2.1 Preparation fees:

- a) Prospecting.
- b) Miscellaneous fees.

3.2.2 Rents and Royalties:

- a) Land Rents.
- b) Mining royalties.
- c) Mining rents.
- d) Rent on government property.

3.2.3 Annual fees and Service Fees:

- a) Map Sales and Survey and Miscellaneous fees.

3.2.4 Land Sales:

- a) Promia.

3.2.5 Others:

- a) Sales of published maps to government.
- b) Sales of published maps to public.
- c) Stamp duty.

IV.3.3 AGRICULTURE

3.3.1 Veterinary inspection fees.

3.3.2 Sale of produce.

3.3.3 Miscellaneous.

IV.3.4 FORESTRY

3.4.1 Royalties, premia and other fees.

3.4.2 Timber cess Fund.

IV.3.5 TREASURY

3.5.1 Trades Licensing.

3.5.2 Entertainment Duty.

IV.3.6 MOTOR LICENSING OFFICE

3.6.1 Drivers Licenses.

3.6.2 Automobile Licenses.

IV.3.7 RESIDENTS AND DISTRICT OFFICE

3.7.1 Arms and Ammunition.

3.7.2 Unclaimed deposits.

3.7.3 Commission on deposits.

3.7.4 Commission on remittances.

3.7.5 Native Court fees.

3.7.6 Rest House.

3.7.7 Pawn Farms.

3.7.8 Produce dealers.

3.7.9 Pilgrim Passes.

3.7.10 Native Court (Fines and Forfeitures).

3.7.11 Landing Permit (Ships or Launches).

3.7.12 Registration of births and deaths.

3.7.13 Estate duty.

3.7.14 Lotteries.

3.7.15 Business Registration.

IV.4 SOURCES OF REVENUE OF LOCAL GOVERNMENT

IV.4.1 Head I - General revenue

a) Rates:

- General purposes
- Education
- Road maintenance
- Street lighting
- Scavenging

- Fire fighting
- Water (stand-pipes)
- Arrears of rate (for 1965 and early years only)
- Interest
- b) Market dues
- c) Slaughter fees
- d) Weights and measures enforcement
- e) Pounds charges
- f) Clinic charges
- g) Rest house charges
- h) Library fees
- i) Income from sports ground
- j) Rent from staff quarters
- k) Recovery of staff medical charges
- l) Sale of water

IV.4.2 Head II - Licences

- a) Vehicles (Other than motor)
- b) Hawkers
- c) Liquor
- d) Entertainment
- e) Shops
- f) Dogs
- g) Storage of Petroleum
- h) Other licensing Provisions

IV.4.3 Head III - Miscellaneous

- a) Provision of Council Services
- b) Sale of Property
- c) Rent from Buildings and Grounds
- d) Hire Fees for Plant and Equipment
- e) Buildings Plans Fees
- f) Costs from Court Proceedings
- g) Other Miscellaneous Revenue

IV.4.4 Head IV - Statutory grants/revenue from government

- a) Payment in lieu of rates:
 - General purposes
 - Education
 - Road maintenance
 - Street lighting
 - Scavenging
 - Fire fighting
- b) Transfer of revenue:
 - Arms licences
 - Rubber dealers
- c) Equalisation grant:
 - General grant
 - Rate-deficiency grant
- d) Education grants-in-aid (recurrent):
 - Recurrent grant to council schools
 - Recurrent grant to other aided schools
 - Part refund of boarding subsidy
 - Part refund of council teacher' superannuation payments
- e) Services to Government:
 - 50 per cent contribution towards general election expenses
 - 50 per cent contribution towards by-election expenses
 - Reimbursement by motor licensing authority
 - Maintenance of grounds
- f) Capital grant to council schools
- g) Other capital grants:
 - Library Books (50 per cent)
 - Library Building Extension (50 per cent)
 - Maternity and Child Health Clinic, Miri Town (50 per cent) (Revote)
- h) Loans towards Capital Expenditure:
 - Educational Purposes
 - Non-Educational Projects

IV.4.5 Head V - Transfer from reserves

- a) Transfer from reserve fund
- b) Transfer from renewals fund
- c) Transfer from pensions account
- d) Transfer from other reserve account

IV.5 SOURCES OF REVENUE FOR STATUTORY BODIES

- 5.1 Sarawak Economic Development Corporation (SEDC)
 - Loan Repayment and interest receivables.
- 5.2 Majlis Amanah Ra'ayat (MARA)
 - Loan Repayment and interest receivables.
- 5.3 Sarawak Electric Supply Corporation (SESCO)
 - Sales of Electricity.
 - Capital Contributions Transfers.
 - Other incomes such as licenses, installation, rents etc.

PUBLIC FINANCE IN THE STUDY AREA

V.1 REVENUE COLLECTION

Several Government Departments and Ministries either State or Federal, Local Government, and Statutory Bodies collect some forms of revenue which either, goes to the State or Federal Treasury or to their own accounts. All figures refer to the Study Area only.

Table V.1.1 AMOUNT OF REVENUE COLLECTED BY FEDERAL DEPARTMENTS

Department	Year	
	1969	1970
	\$	\$
Inland Revenue	6 593 642	6 194 920
Customs and Excise	5 455 262	6 238 128
Labour	390	430
Postal Services	298 388	328 666
Education	297 115	308 891
Telecommunications	675 000	794 000
Medical	69 120	78 518
Marine	96 939	101 390
Immigration	81 525	89 372
Ministry of Commerce and Industry	119 071	181 709
Judicial	36 126	47 179
Civil Aviation (Estimated)	174 600	194 000
Total Revenue	13 897 178	14 557 203

Table V.1.2 AMOUNT OF REVENUE COLLECTED BY STATE DEPARTMENTS

Department	Year	
	1969	1970
	\$	\$
Treasury	5 346 636	4 222 870
Land and Survey	1 013 790	1 029 081
Forestry	9 487 900	9 129 233
Agriculture	5 571	8 014
Public Works	470 840	469 975
Motor Licensing Office	477 035	512 550
Total Revenue	<u>16 801 772</u>	<u>15 371 723</u>

Table V.1.3 AMOUNT OF REVENUE COLLECTED BY LOCAL GOVERNMENT

District Councils	Year	
	1969	1970
	\$	\$
Miri	1 584 575	1 689 575
Subis	342 347	458 444
Baram	939 869	1 008 305
Bintulu	702 269	802 450
	<u>3 569 060</u>	<u>3 958 774</u>

Table V.1.4 AMOUNT OF REVENUE COLLECTED BY STATUTORY BODIES

Statutory Bodies	Year	
	1969	1970
	\$	\$
Sarawak Economic Development Corporation	148 734	19 418
Sarawak Electric Supply Corporation	1 459 755	1 474 430
Majlis Amanah Ra'ayat	16 340	19 126
	<u>1 624 829</u>	<u>1 582 974</u>

V.2 DISTRIBUTION OF REVENUE

V.2.1 Contribution to Federal Government:

The revenue collected by the Federal Departments does not totally go to the Federal Consolidated Revenue Account. Some of these departments also collect revenue for the State Government. So the revenue collection by the Federal Department and State Department has to be adjusted in order to see how much goes to the Federal Government.

	1969	1970
	\$	\$
Revenue collected by Federal Department	13 897 178	14 557 203
<u>Less:</u> Amount accrued to State Government	1 583 157	1 645 132
Amount to Federal Government	12 314 021	12 912 071
Add: Amount collected by State Departments	96 185	181 709
Total Amount of Revenue accrued to Federal Government	12 410 206	13 093 780

V.2.2 Contribution to State Government:

The State Department not only collects revenue for the State Government but also for the Federal Government. Some Federal Departments also collect revenue for the State. Revenue accrued to the State Government is shown by the following adjustment:

	1969	1970
	\$	\$
Revenue collected by State Departments	16 801 772	15 371 728
<u>Less:</u> Amount accrued to Federal Government	96 185	181 709
Amount to State Government	16 705 587	15 190 019
<u>Add:</u> Amount collected by Federal Departments	1 583 157	1 645 132
Total Amount to State Governments	18 288 744	16 835 151

V.2.3 Revenue accruing to Local Government Treasury:

The Local Councils are collecting some revenues, which go to their own treasury, from their own districts. Besides, the grants from State and Federal Government are also their sources of revenue. These grants are actually expenditures of the Federal and State Departments which require the Local Councils to perform certain functions. In this way, adjustment has also to be made to the revenues of Local Councils.

	1969	1970
	\$	\$
Total Revenues of Local Councils	3 569 060	3 958 774
Less: Grants For:	2 726 755	2 956 667
1) Ordinary Expenditure	2 570 848	2 804 838
2) Development Expenditure	155 907	151 829
Actual Real Revenue of Councils	842 305	1 002 107

V.2.4 Revenue to Statutory Authorities:

Their revenues are derived from their commercial activities.

	1969	1970
	\$	\$
Total Revenue	1 624 829	1 582 974

V.3 EXPENDITURE:

The expenditure paid by Federal and State Departments is financed out of the Federal and State Consolidated Revenue Account, for Local Government out of the revenues it receives, and for the Statutory Bodies out of their revolving funds, loans or grants from State or Federal Government. Expenditure here includes the Ordinary, which embraces recurrent, non-recurrent, and special, and development expenditures.

Table V.3.1 FEDERAL DEPARTMENTS EXPENDITURE IN \$

Department	1969		1970	
	Ordinary	Development	Ordinary	Development
Labour	27 358	-	42 193	-
Telecommunications	522 000	490 000	650 000	920 000
Fishery	7 712	31 716	6 779	31 762
Postal	141 802	-	149 090	-
Marine	172 247	-	158 861	-
Medical	956 545	176 412	1 062 388	148 405
Malaysian Information Services	109 943	2 534	124 924	-
Inland Revenue	53 500	-	64 500	-
Ministry of Commerce and Industry	137 242	-	202 248	-
Education	2 979 920	384 524	3 294 960	262 655
Civil Aviation	234 000	63 000	260 000	70 000
Customs and Excise	248 915	-	269 817	-
Immigration	39 975	-	45 070	-
Judicial	40 715	-	38 910	-
Co-operative Development	72 333	-	67 284	-
	<u>5 744 207</u>	<u>1 148 186</u>	<u>6 437 024</u>	<u>1 432 822</u>
				<u>7 869 846</u>

Table V.3.2 STATE DEPARTMENTS EXPENDITURE IN \$

	1969			1970		
	Ordinary	Development	Total	Ordinary	Development	Total
Agriculture	495 992	1 143 092	1 639 084	499 546	651 585 (1)	1 151 131
Treasury	33 834	-	33 834	34 161	-	34 161
Public Works	4 066 660	6 361 738	10 428 398	4 351 538	5 538 862	9 890 400
Welfare	57 309	-	57 309	45 142	-	45 142
Land and Survey	713 937	64 509	778 446	751 378	75 276	826 654
Residents and Development Office	374 235	176 848	551 083	411 959	135 785	547 744
Forestry	253 843	23 495	277 338	503 001	9 392	512 393
Ministry of Local Government	604 535	-	604 535	713 611	-	713 611
Drainage and Irrigation	46 662	116 313	162 975	55 762	98 514	154 276
Land Transport	13 884	-	13 884	13 990	-	13 990
Motor Licensing	10 570	-	10 570	8 705	-	8 705
	<u>6 671 461</u>	<u>7 885 995</u>	<u>14 557 456</u>	<u>7 388 793</u>	<u>6 509 414</u>	<u>13 898 207</u>

NOTE:- (1) Does not include Subsidy on Fertiliser.

Table V.3.3 LOCAL GOVERNMENTS EXPENDITURE IN \$

	1969			1970		
	Ordinary	Development	Total	Ordinary	Development	Total
Miri District	1 494 187	112 051	1 606 238	1 549 092	126 393	1 675 485
Baram District	856 238	110 353	966 591	892 901	65 786	958 687
Subis District	311 020	80 233	391 253	340 390	63 952	404 342
Bintulu District	686 776	39 950	726 726	722 604	44 631	767 235
	<u>3 348 221</u>	<u>342 587</u>	<u>3 690 808</u>	<u>3 504 987</u>	<u>300 762</u>	<u>3 805 749</u>
<u>Less: 1) Ministry of Local</u>						
Government Contribution	465 487	33 306	498 793	560 652	34 643	595 295
2) Education Department						
Grants	2 105 361	122 601	2 227 962	2 244 186	117 186	2 361 372
	<u>2 570 848</u>	<u>155 907</u>	<u>2 726 755</u>	<u>2 804 838</u>	<u>151 829</u>	<u>2 956 667</u>
Real Expenditure of Local Councils	<u>777 373</u>	<u>186 680</u>	<u>964 053</u>	<u>700 149</u>	<u>148 933</u>	<u>849 082</u>

V.4. COMPARISON OF REVENUE AND EXPENDITURE IN STUDY AREA⁽¹⁾

Table V.4.1 Federal Government

	<u>1969</u> \$	<u>1970</u> \$	Growth per cent
Revenue	12 410 206	13 093 780	5.5
Expenditure	6 892 393	7 869 846	14.18
Surplus/(Deficit)	5 517 813	5 223 934	-

NOTE:- (1) Figures do not include Expenditure on Armed Forces, Police, Prisons, Civil Defence.

Table V.4.2 State Government

	<u>1969</u> \$	<u>1970</u> \$	Growth per cent
Revenue	18 288 744	16 835 151	-18.7
Expenditure	14 557 456	13 898 207	-14.53
Surplus/(Deficit)	3 731 288	2 936 944	

Table V.4.3 Local Government

	<u>1969</u> \$	<u>1970</u> \$	Growth per cent
Revenue	842 305	1 002 107	18.97
Expenditure	964 053	849 082	-11.93
Surplus/(Deficit)	(121 748)	153 025	

Table V.4.4 Statutory Bodies

	<u>1969</u> \$	<u>1970</u> \$	Growth per cent
Revenue	1 624 829	1 582 974	- 2.58
Expenditure	3 053 678	3 088 300	1.13
Surplus/(Deficit)	(1 428 849)	(1 505 326)	

Table V.4.5 SUMMARY

	<u>1969</u> \$	<u>1970</u> \$	Growth per cent
Revenue from Study Area	33 166 084	32 514 012	- 2
Expenditure in Study Area	25 467 580	25 705 435	.93
	<u>7 698 504</u>	<u>6 808 577</u>	

Table V.4.5.1 Summary of Ordinary Expenditure

Institutions	1969 \$	1970 \$	Growth per cent
Federal Department	5 744 207	6 437 024	12.06
State Department	6 671 461	7 388 793	10.75
Local Government	777 373	700 149	- 9.94
Statutory Bodies	1 074 307	1 068 094	- .58
	<u>14 267 348</u>	<u>15 594 060</u>	

Table V.4.5.2 Summary of Development Expenditure

Institutions	1969 \$	1970 \$	Growth per cent
Federal Departments	1 148 186	1 432 822	24.79
State Departments	7 885 995	6 509 414	-17.46
Local Government	186 680	148 933	-20.22
Statutory Bodies	1 979 371	2 020 206	2.06
<u>TOTAL:</u>	<u>11 200 232</u>	<u>10 111 375</u>	

GLOSSARY

The Meaning Given to Land Categories in the
Miri Bintulu Study Reports

FOREST RESERVES

Permanent forest gazetted as reserves. They are under the control of the Forest Department and will normally be productive forests, destined to be the principal permanent sources of the country's supplies of timber and other forest produce.

PROTECTED FORESTS

Permanent forests under the control of the Forest Department but in which wide rights are permitted to the people of Sarawak to take forest produce for their own domestic use.

COMMUNAL FORESTS

Permanent forests under the control of the local Administration and set aside to provide the domestic needs of a settled community.

**CURRENTLY LICENCED
EXPLOITABLE FORESTS**

Forests, other than those included under Reserves, Protected and Communal Forests for which current exploitation licences have been issued.

**CURRENTLY LICENCED
REMNANT FORESTS**

Forests, other than those included under Reserves, Protected and Communal Forests in which licenced exploitation has been completed.

MIXED ZONE LAND

Land within an area demarcated by Government in which people of all races in Sarawak can obtain land under title.

NATIVE AREA LAND

Land within an area demarcated by Government in which only natives of Sarawak can obtain land under title or native customary rights established legally.

NATIVE CUSTOMARY LAND

Land, on which before the promulgation of the Land Code in 1954, rights of usage had been established under native law and custom. In fact there is no accurate record of the boundaries of such land. For planning purposes this category is taken to be represented by the areas shown as "area of Shifting Cultivation" in the Government of Sarawak map Series T735 Scale 1:50,000 and based on aerial photography of 1963-64.

TITLED LAND

Land held under title in either of the categories Mixed Zone or Native Area Land.

INTERIOR AREA LAND

Land not included under any of the previous categories. It belongs to the State.

STATE LAND

Land over which the State legally holds complete control; including Forest Reserves, Protected Forest, Currently Licenced Forests, and parts not held under title within Mixed Zone, Native Area, and Interior Area Land.

UNENCUMBERED STATE LAND

State Land which has not yet been committed to a permanent use; in effect this category consists of Currently Licenced Forests, and parts not held under title within Mixed Zone, Native Area and Interior Area Land.

DIPTEROCARP HILL FORESTS
OR
HILL FORESTS

Those forest areas which are on mountainous, hilly, undulating or flat land which is not peat swamp, estuarine or alluvial swamp.

SWAMP FOREST OR PEAT
SWAMP FORESTS

Those forests which are growing on peat, estuarine or alluvial swamps.

APPENDIX VII

REFERENCES

Department of Statistics Sarawak, Malaysia	-	Monthly External Trade Statistics of Sarawak up to September, 1972	Department of Statistics, Kuching
Department of Statistics State of Sarawak	1966-71	Annual Bulletin of Statistics State of Sarawak 1966 - 1971	Department of Statistics, Kuching
Department of Statistics State of Sarawak	-	Quarterly Bulletin of Statistics State of Sarawak up to Second Quarter 1972	Department of Statistics, Kuching
Department of Statistics Sarawak	1970	1970 Population and Housing Census, District Returns	Department of Statistics, Kuching
Department of Statistics	1970	Construction Survey, 1970 Preliminary Tabulation for Fourth Division	Department of Statistics, Kuching
Department of Statistics	1967-68	Provisional Data on Employment and Unemployment (Based on Sample Totals)	Department of Statistics, Kuching
Department of Statistics	1969	Manufacturing Survey Preliminary Tabulation for Fourth Division	Department of Statistics, Kuching
Department of Statistics Sarawak	1970	Crop Estimation Survey on Padi in Sarawak 1969-70	Department of Statistics, Kuching
Government of Sarawak	1963	Sarawak Development Plan 1964-1968	Government of Sarawak, Kuching
Government of Sarawak	1957	Land Code 1957	Government Printer, Kuching
Geological Department Sarawak	1964	Geological Survey Annual Report 1964	Government Printer, Kuching
Government of Malaysia	1970	Customs Duties Order (1970)	Government Printer, Kuala Lumpur

Government of Malaysia	1970	Second Malaysia Plan	Government Printer, Kuala Lumpur
Hunting Technical Services and Hoff Overgaard	1972	The Zonation Plan	Miri-Bintulu Regional Planning Study
Jorgensen S. Chia P. C.	1972	Occupation Structure in the Study Area 1970	Miri-Bintulu Regional Planning Study Internal Working Paper No.26
Kho	1968	Geological Survey Memoir Bintulu Area	Government Printer, Kuching
Koppen W	1916	Klassifikation de Klimate nach Temperatur, Niederschlag und Jahreslauf	P. Mitt
Kuznets, S.	1966	Modern Economic Growth	New York
UNIDO	1971	Industrial Development Survey Vols. I - III	New York 1971
United Nation	1967	Profile of manufacturing establishment	New York 1967

Specific information from Federal and State authorities in Sarawak concerning public finances in Fourth Division

Intermediary Surveys carried by consultants (1972)

All annual Reports from Federal and State Department up to 1970/71

