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THE GOVERNMENTS OF MALAYSIA AND THE STATE OF JOHOR

W.P. SETTLEMENT IN AND AROUND
THE PROJECT AREA

WORKING PAPER

JOHOR TENGAH AND TANJONG PENGGERANG REGIONAL MASTER PLAN

1971

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TITLE: SETTLEMENTS IN AND AROUND THE PROJECT AREA.

PREFACE.

These surveys were designed, supervised, and analysed, and this paper written by the project counterpart staff of the Department of Town and Country Planning. They provided extremely valuable guidelines in the master planning of the project regions, and have been produced, both for future reference by those responsible for project implementation, and for more general use in the future planning of the settlements surveyed and other Johor settlements outside the project area.

The consultants who provided only editorial assistance, wish to acknowledge their gratitude to the Department of Town and Country Planning.

INTRODUCTION

This paper describes and compares a series of existing settlements in and around the Project Area. A 100 percent house to house survey was carried out in the following settlements except in Johor Baharu, Kluang and Masai where the sample was restricted to selected areas, within which a 100 percent survey was taken.

<u>Settlement Surveyed</u>	<u>Pop. Surveyed</u>	<u>Population Local Council Areas 1970</u>
Johor Baharu	1,969	(135,900)
Kluang	(19,189)	(43,297)
Kota Tinggi	8,900	(8,700)
Kulai	12,800	(11,800)
Rengam	2,800	(3,100)
Layang-Layang	2,600	(2,600)
Scudai	2,800	(3,595)
Masai	1,064	(2,200)
Sedili Besar	1,600	(2,400)
Kukup	1,000	(1,200)

Additionally, in Kota Tinggi detailed surveys of central area property owners and shoppers have been taken to provide background information with regard to alternative siting of the town centre in view of the forequent floods.

A. JOHOR BAHARU

A.1 INTRODUCTION

Johor Baharu situated on the southern tip of Johor state is the southern gateway to the Malay Peninsula. It is the state capital, and the main centre for administration, health, education, shopping, market and recreation in the state.

Johor Baharu Town Council occupies an area of 17,268 acres. Table 8 Appendix A shows existing land use in the town council area.

The topography of Johor Baharu is flat in and near the town centre, but becomes gently undulating northwards. The land in the town council area is generally suitable for development, the only exception being the swamps near the straits on the outskirts of the town where considerable filling would be required for any development to take place.

A.2 POPULATION

According to the Preliminary Census Report 1971, Johor Baharu has a population of 136,000. The figure shows an increase of 81 percent over 1957 census population of 74,900. Assuming a migration rate of 2 percent per annum Johor Baharu and the areas around it will be a conurbation of 500,000 by 1990.

A.3 EMPLOYMENT AND INCOME

Table 1 Appendix A shows the population structure the sample areas surveyed in the town. Although 60 percent of the total population are in the working age group, only 42 percent are employed. The average monthly income was \$283 per person for those employed.

The average household size and workers per household vary according to ethnic groups. The Chinese (6.8 p.p.h) have the largest household size, followed by Indian (6.2 p.p.h) and Malay (5.7 p.p.h). The Chinese have more workers per household than either the Indian or the Malays families. On average for all groups, there were 1.7 workers per household, and estimated income of \$483 per family per month (see table 4). The employment pattern is shown in table 5 Appendix A.

A.4 TOWN CENTRE

The present town centre of Johor Baharu is located on the southern tip of Johor Baharu, near the causeway.

There are at present all together 1204 shops in the centre with a population of 135,00 (Approximately 112 persons per shop). This is above the ratio of 120-150 persons per shop, found in other towns of Malaysia, despite the existence of extensive shopping facilities nearby in Singapore.

There are five cinemas with a total seating capacity of about 3,500, nine banks, a central market with 86 stalls, about a dozen timber storage yards and a dozen motor repair shops in the town centre.

The present town centre is bounded by the railway on the east, sea on the south and government administrative buildings on the west. The only possible direction of large scale expansion is towards the north.

A.5. EDUCATION

Table 6 Appendix A records the number of school type and their enrolment in Johor Baharu. There are 61 government and 9 private schools in Johor Baharu with a total enrolment of 35,778. Approximately 59 percent of the total students is in primary schools and about 32 percent is in secondary school and the distribution among the different language medium school types is 57.2 percent in English 19.5 percent Malay, 16 percent Chinese and 1.5 percent in Tamil. There is no Indian secondary school in Johor Baharu. The private Chinese Secondary School has a total enrolment of 1,244 students. Under the new education policy it is not likely that new secondary schools in these mediums will be established in the near future. The Malay and English schools have form six classes in five of the twelve secondary schools.

Johor Baharu has the highest school attendance rate in the state with primary, secondary and upper secondary school attendance record of 93 percent, 70 percent and 35 percent respectively. However, this is below the national objective, as less than 60 percent of the students in the school-going age group are attending school (see table 7 appendix A).

In regard to tertiary and other education establishments, at present, there is one Muslim religious school, two teachers training colleges, and one trade school. With the expansion and industrialisation of Johor Baharu, the trade school will have to be expanded, and perhaps a new Technical or Agricultural school or University College may be considered necessary.

A.6. HEALTH

There is an existing modern hospital providing a total of 1,000 beds and occupies a total of 81 acres. There is space in the present reserve for future expansion. However, more clinics will be required with the expansion of the town.

Just outside the town boundaries there is a Mental Hospital and a Leper Asylum.

A.7. HOUSING

The table below shows the number of houses built in the town council area:

NO. OF DWELLINGS IN JOHORE BAHARU TOWN COUNCIL AREA
(Source: J.B. TOWN COUNCIL)

YEAR	NO. OF DWELLINGS	POPULATION	DENSITY PER DWELLINGS
1947	4,247	38,826	9.1
1957	19,214	74,909	5.6
1970	23,831	136,900	5.06

The total number of dwelling units in Johor Baharu town council area in January 1971 is 23,831 and taking a total population of 135,000 there will be a density of 5.06 persons per dwelling, a slight reduction on the 1957 and 1947 census figures. In estimating housing requirements a figure of 5 persons per dwelling appears appropriate for local conditions.

The people in Johor Baharu seem to prefer detached and semi-detached houses rather the terrace houses or flats. According to various housing estate developers, there is a higher demand for detached houses in the \$13,000 category. This preference is more marked with the Malays population who prefer to have a plot of 1/4 acre or over.

A.8. COMMUNICATIONS

Johor Baharu is joined to other parts of West Malaysia and to Singapore by rail and roads. There is first class trunk road system joining Johor Baharu with the Federal Capital, Kuala Lumpur, as well as the major towns northwards both on the west and east coast. The city is linked to Singapore by a causeway of about one mile long, with custom and immigration points at either end.

A new airfield and new port is being planned. There are located at Tebrau eight miles north of the town centre and at Pasir Gudang, 16 miles east respectively.

B. KLUANG

B.1. INTRODUCTION

Kluang, the largest town on the fringe of the project regions, is the fourth largest town in the state. It is located almost in the centre of Johor about 70 miles north of Johor Baharu, the state capital (refer map I). The town is on the main east to west road in Johor and is only 12 miles from the main north-south trunk road. It is also served by railway linking Johor Baharu to Kuala Lumpur and other states to the north.

Centrally situated in the state the administrative importance of this district centre appear likely to increase.

Kluang is a Garrison town of some importance. The large garrison of 839 acres is partly outside the town council area; in addition 268 acres on the Mersing road are under Military use. These military establishments represent an important parts of the town's life and any considerable reduction in the number of personnel would affect its economy. However, as large scale land development is planned nearby, and a series of industrial developments are underway, the continued expansion of the town looks likely.

Much of the land in Kluang is state owned. Nearly half of the population live in plank and attap houses occupying the land as squatters or on temporary occupation lesses. Many of these lesses have been in existence for 20 years or more. Nearly the whole of the residential area east of the railway is subject to annual flooding, excepts parts of the centre of town, Kampong Melayu and Kampong Yap Tan Sah.

Development to the north and east is hindered by a marshy area. This natural barrier prevents development to the north except if the garrison area becomes available. There is room for considerable residential growth to the south and west of the town. There may be a tendency for development to spread along the existing roads outwards. However, the scale of future development suggests that these trends should be redirected and a large scale town expansion plan prepared.

B.2. POPULATION

The population of the mukim of Kluang in 1970 has been estimated at 71,000 (Preliminary Census Count) and the town council area at 43,000 as 61,000 people. Within the mukim an average annual here has been increase of 2.6 of 87.9, that is slightly below the average for the state as a whole (2.7). This is a lower growth rate than the ten year period between 1947-1957.

The higher rate of growth during the 1947-1957 period is largely due to forced resettlement of population during the 'emergency'.

The recent sample survey shows that the town population is predominately Chinese (71 percent). The Malays and Indian populations are 23.7 percent and 5.3 percent respectively.

The age structure is shown in table 1 appendix B. 57 percent of the population are in the working age group of 15-65 years while 40 percent are less than 14 years old.

The average household size in Kluang is 6 persons per household. Chinese families (6.5) are higher than the other ethnic groups.

B.3. EMPLOYMENT AND INCOME

The employment pattern is shown in table 5 appendix B. It is likely that the percentage of government employee are slightly higher than shown because the survey does not include the government quarters area and the military establishment. On the whole commercial trade and government services are the main sources of employment providing about 45 percent of the total employment.

The income of the working population has been estimated as \$171 per working person per month and \$299 per family per month. While the average family has 1.7 workers, Chinese families average 2.0 workers.

B.4. TOWN CENTRE

The town centre proper has 383 shops; the number and type are shown in appendix B table 6. The ratio of one shop to 160 people is comparable to the West Malaysian average for towns of this size.

The sphere of influence of the town is considered to extend from Paloh in the north, to Layang-layang in the

south and from Kahang in the east to Ayer Hitam in the west. This area approximate to the administrative boundaries of Kluang district.

The principal shopping and commercial area lies mainly between the railway and the river on either side of Jalan Mersing, but also includes 43 shops to the west of the railway. Including the central open space but excluding the river reserves it covers an area of approximately 73 acres.

The government and local authority administrative centre is not within this area but is conveniently situated nearby.

There are three existing cinemas with a total capacity of 2,326 seats.

The facilities in the market are considered inadequate and plans have been prepared for the redevelopment of the market area.

B.5. EDUCATION

Table 6 appendix B shows the number and types of schools and their enrolment. There are 16 primary schools and 5 secondary schools in Kluang town council area. In addition there are three private kindergartens which enrol 153 pupils; and two trade schools with 202 students and three teachers.

The enrolment in the primary and secondary schools are 10,155 pupils with 288 teachers and 4,114 students with 175 teachers, respectively. The teacher/student ratio in the primary school is 1:35 while that of secondary is 1:23.

Kluang has high primary and secondary school attendance, 89 percent and 56 percent respectively. This is because primary and secondary school education are available conveniently. An examination of schools' attendance records show that a high proportion of the student population comes from outside the town.

With the development of the project area Kluang would play a greater role as an education centre.

B.6. HEALTH

Kluang has a general hospital with 267 beds and serves an estimated population of 127,000 i.e. a bed/population

ratio of 2.1 per 1,000. To reach a target of 4 beds per 1,000 the hospital will need an additional 242 beds to service the existing population. Plans for small extension to this hospital are included under the Second Malaysia Plan but will not alter the situation substantially.

B.7. COMMUNICATION

Kluang is linked to Johor Baharu, Kuala Lumpur and the rest of West Malaysia by road and rail. The railway provides extensive regular passenger and goods services.

Situated on the main east to west road of the state, the town and its service region is served by good bus and taxi services, giving links to Ayer Hitam, Mersing, Rengam and the towns and villages of the state.

C. KOTA TINGGI

C.1. INTRODUCTION

Kota Tinggi is a district capital and administrative centre situated at the crossing of S. Johor and the Johor Baharu/Mersing trunk road. It is at the junction of the two project regions, 26 miles to the north east of Johor Baharu. Large areas of the town are located in flood plain of the river. Two-thirds of the town council area are still undeveloped while another 12 percent is covered by swamp (see table 12 in the appendix C).

C.2. POPULATION

The total population recorded was 8,312 and the area of the town board is about 1,200 acres, (a gross density of 7 persons per acre). The table below compares the populations of 1957 and 1970.

KOTA TINGGI POPULATION

	MALAY		FEMALE		TOTAL PERSONS	
	1957	1970	1957	1970	1957	1970
MALAY	984	1,373	961	1,335	1,945	2,708
CHINESE	2,654	2,757	2,326	2,536	4,980	5,293
INDIAN	326	179	224	133	550	312
TOTAL	3,964	4,309	3,511	4,004	7,475	8,313
INCREASE	345		493		838	

This represents a total increase of 11.2 percent for the last thirteen years, an annual growth of only 0.9 percent as compared with the Johor State average rate of increase 2.7 percent per annum.

In 1957 the population of Kota Tinggi was comparable to Kulai (i.e. 7,475 and 7,759 respectively). By 1970 Kulai had increased by 65 percent to a record population of 12,833 while Kota Tinggi had a population of 8,313. Both towns have similar average family size of 5-8 persons/family. It is evident that there has been considerable outward migration from Kota Tinggi. The number and type of jobs available and the frequent flooding were the main reasons given by residents for people leaving.

There are altogether 1,317 families in Kota Tinggi, of the following ethnic groups: 63 percent Chinese, 32 percent Malays and 5 percent Indians. The Chinese and Malay families have 5-8 persons per household while the average Indian household size is between 3 and 4.

C.3. EMPLOYMENT AND INCOME

Table 4 appendix C indicates the employment pattern in Kota Tinggi. Commercial trade is the main source of employment followed by government service, private estates and general labouring. In all about 63 percent of the total work force available has jobs.

The percentage of people working in mining and other industries is very small (2.2 percent). There are few industrial establishments in the town.

At the time of the survey, the estimated average earning of those employed was \$175 per working person per month i.e. about \$300 per family per month. Kulai has lower personal income (\$172) but higher family income per month (\$322) indicating more workers per family (1.6).

On average Kota Tinggi has 1.5 workers per family; the average Chinese family has 1.9 workers, while Malays and Indians who are mainly employed on estates and in general labouring each have 1.4 workers per family.

C.4. TOWN CENTRE

C.4.1. Commerce and Industry.

The main shopping centre is situated on the east bank of the Johor River. There are 219 shops in the whole

of Kota Tinggi township, and 168 shops in the main shopping centre.

Table 8 appendix C shows the various types and numbers of shops in Kota Tinggi. Diagram 9 shows the percentage component of each kind.

The high ratio of shop to population (1:38) indicates the function of the town as a commercial centre for the region around it. A recent shopping survey shows Kota Tinggi attracts customers within 20 miles radius. From the distribution of shoppers map (map 2) it is apparent that the influence of Kota Tinggi as a shopping centre is strongly felt within a distance of 7 miles radius, beyond which its influence becomes gradually diminished. 52 percent of the shoppers came from the kampongs within 2 miles.

Service and light industry activities in the town area account for 10 percent of the number of business establishments.

C.4.2. Mode of Travel

Appendix C table 10 the percentage of shoppers, and mode of travel by distance.

As expected shoppers within 1 and 2 miles radius either walk or cycle to the centre. Those beyond the 7 miles radius come to Kota Tinggi by bus (26.2 percent), car (12.8 percent), boat (4.4 percent) and motor cycle (4.4 percent). The second last mode of travel refers particularly to those living along the banks of the S. Johor. Though there are bus services from the centre to the surrounding villages and estates, the population regard the services as inadequate and unsatisfactory.

It is apparent that the frequency of shopping of the people in Kota Tinggi depends on the distance from the place of residence to the shopping centre and the nature of occupation of the shoppers. 45 percent of the shoppers within 2 miles radius shops daily at the centre for everyday needs. Those further away shop twice weekly, once a week, or once a fortnight depending on the wage payment period. Rubber estates workers usually visit the town after pay day on Friday.

Most shoppers bought nearly all their foodstuffs,

clothings and household goods in Kota Tinggi, though they complain of lack of variety and goods being too expensive. They only shop at Singapore, Johor Baharu and Kulai for specialised items like electrical goods, special clothing and spare parts or when they have business or social call in those places. Despite these limitations, the range and number of shops, and the extent of land development schemes nearby, would indicate that the facilities in Kota Tinggi could develop further and improve its function as a regional shopping centre. However, the threat of flood and the lack of firm policies for future planning at present inhibit this growth.

Questions were asked to both the shopkeepers and shoppers regarding their willingness to move if a new shopping centre is built on higher ground free from flooding risks. 60 percent of the shopkeepers are willing to move on a varied range of terms common among which are adequate compensation, government provision of site at low premium, and new premises at current rentals. Those who oppose the idea of moving the town centre are either occupying their own shophouses in the existing centre or renting shops in good location facing the main road or bus station.

C.5. EDUCATION

The table below shows the number and type of schools and their respective enrolment in December 1970.

NO. OF SCHOOLS AND THEIR ENROLMENT
IN KOTA TINGGI TOWN COUNCIL AREA

Type of school	Medium	No.	Enrolment	Teachers
PRIMARY	M	1	535	14
	E	1	982	30
	C	2	974	29
	T	1	84	5
PRIMARY TOTAL		5	2,565	78
SECONDARY	M	1	475	21
	E	1	965	35
	C	-		
	T	-		
SECONDARY TOTAL		2	1,440	56

Kota Tinggi has five primary schools enrolling 2,565 students and 78 teachers and 2 secondary schools with 1,440 students and a total of 56 teachers. The teacher student ratio is 1 to 33 in primary school and 1 to 25 in secondary schools.

The school attendance rate is 91.6 percent in primary schools, 52.2 percent lower secondary and 8 percent in the upper secondary and university level indicating a drop out rate of 45 percent in the primary to secondary school, and 96 percent in secondary to upper secondary and university level (see table E in appendix C).

In Kota Tinggi there are 1,603 children within the age group of 7-12 years and out of these, 1,469 are attending school. This is 57 percent of the total primary pupils in all the primary schools, indicating that about 43 percent of the primary schools children are from areas outside the town.

Only 795 attend school out of 1,440 children in the age group 13-18. This forms 55.2 percent of the secondary school attendance in the 2 schools. The rest of the students come from regions served by the town.

This suggests that Kota Tinggi plays an important role as a centre of education covering a very wide region. The high rates of drop out may be due to lack of places and facilities in the secondary and upper secondary schools for those living in the town, and inadequate and expensive travel facilities for those living in the region served.

C.6. HEALTH

The existing hospital has 159 beds serving not only Kota Tinggi district but Mersing district. The area extends over 1,366 sq. miles with a population of 55,890. The bed/population ratio is 2:8 and a further 65 beds will be required to meet the Health Department standard of 4 bed per thousand. The hospital also provides mobile services to small town and villages in the district.

In addition Kota Tinggi has few private clinics and the existing subhealth centre is being up-graded to a full health centre. Serious illness and operation cases are transferred to Johor Baharu general hospital.

C.7. COMMUNICATIONS

The town is served by taxis and buses from early morning to late night. Mara buses provide regular services from the town to surrounding FLDA villages. Boat and sampan are the main means of movements from the villages along the S. Johor. There are good roads to Mersing and Johor Baharu, and a new route is being constructed to Tanjung Penggerang.

C.8. SOCIAL AND CULTURAL

Table 12 appendix C shows the number and types of facilities available at present.

C.9. CONCLUSION

With the development of the project regions and its strategic location in relation to the national road system Kota Tinggi could grow as a regional service centre but its potential is limited by the threat of floods. Since flood control measures are uneconomical and impractical (Supporting Volume 3 Water) it is recommended that the town centre be moved northwards.

D. KULAI

D.1. INTRODUCTION

Kulai is a small but rapidly expanding town situated 20 miles of Johor Baharu, on the main north-south road and rail routes.

The town is administrated by two authorities, Kulai is under the Town Board while Kulai Besar is controlled by the District office of Johor Baharu.

The town was one of the first resettlement villages during the Emergency Period. The buildings were hurriedly put up without proper planning. The town centre is comprised of mainly timber structures lining the main road while the residential dwellings are scattered mainly on the western part.

D.2. POPULATION

The town has a total population of 12,833 within its local council boundary of 575 acres (a gross density of 22.3 persons per acre).

The table below compares the population of 1957 and 1970.

KULAI POPULATION

ETHNIC GROUP	MALE		FEMALE		TOTAL	
	1957	1970	1957	1970	1957	1970
Chinese	3,406	5,568	3,511	5,459	6,917	11,027
Malay	334	681	226	614	560	1,295
Indian	161	258	81	253	242	511
Others	-	-	-	-	-	-
Total	3,901	6,507	3,858	6,326	7,759	12,833
Increase	2,606		2,468		5,074	

This represents a total increase of 65 percent for the last thirteen years, an annual growth of 4 percent as compared with the Johor State average of 2.7 percent. The rapid increase is mainly due to migration resulting from the growth of commerce and the industry in the town.

There are 2,129 families in Kulai. There are 34 percent Chinese, 11 percent Malay and 5 percent Indian. The average family size among the various ethnic groups is as follows:-

Chinese	:	6.1 person per family
Malay	:	5.5 person per family
Indian	:	5.1 person per family

The average family size for Kulai is 6 person per family. The population structure table I appendix D shows the working age group of 15-65 years is about 54 percent of the total population. Both sexes have almost equal members - 3,525 male and 3,419 female workers.

D.3. EMPLOYMENT AND INCOME

Kulai has 3,992 workers (2,771 males and 1,221 females). Types of employed are given in table 5 appendix D. Estates, factories and commercial establishments are the main source of employment. Among them they provide more than 54 percent of the total employment.

The average per capita income of the working population amounts to \$172 per working person per month (i.e. about \$322 per family per month). On average the Chinese have higher family incomes, partly because of the greater number of workers per family (2 person/family) compared

to either the Malays or the Indians who each have 1.4 workers per family (see tables 3,4 appendix D).

D.4. TOWN CENTRE

The shopping centre is comprised of 2 rows of shops lining the main road for about a mile. Most of the buildings are of two storey high and of non-permanent structure. Generally, the ground floor is used as shops while the upper floors are residential.

There are 278 shops within the town board area and 59 shops just outside; their numbers and types are shown in table 7 appendix D.

The high ratio of 1 shop to 38 people indicates the function of the town as a commercial centre for the region around it. There is no other shopping centre within 10 miles radius of the centre except for Senai, a small local centre which is located five miles to the south. Within this radius there are five FLDA schemes and a few major rubber and oil palm estates. With the development of other areas including the project region it is likely that Kulai will expand further.

D.5. EDUCATION

There are five schools in Kulai and among them they have nearly 6,000 pupils and 200 teachers.

SCHOOL	MEDIUM OF INSTRUCTION	ENROLMENT	TEACHERS
1. Chinese Kindergarten	Chinese	76	2
2. National Primary	Malay	364	14
3. English Primary	English	1,232	34
4. Chinese Primary	Chinese	2,034	51
5. Sultan Ibrahim (Secondary School)	English/ Malay	2,084	95
TOTAL		5,790	196

In Kulai there are 2,383 children within the age group of 7-12 years and 2,084 attend school. Therefore, local pupils comprise only about 57 percent of the total number of pupils and 43 percent of the pupils are from elsewhere.

Within the age group of 13-18 years only 1,022 out of 1952 children in Kulai attend school (table 6 appendix D). The only secondary school available within a radius

of 15 miles is the Sultan Ibrahim School. This school has an enrolment of 2,084 pupils but only 49 percent live within the town council area. Although Kulai provides secondary education facilities for the surrounding region, a considerable number of students from the town and the surrounding area travel to Johor Baharu for their secondary education.

D.6. HEALTH

Kulai is served by a government clinic, four private clinics and four dental clinics. Serious illness and operations are treated in Johor Baharu. The existing population of Kulai and its surrounding regions could support a district health centre.

D.7. SOCIAL AND CULTURAL

The following are the facilities available in Kulai:

Mosque	1
Chinese Temple	4
Cinema	2
Association	2
Clubs	2
Church	2

D.8. COMMUNICATIONS

The town is adequately served by taxis, buses and trains for trips to the regional capital and Singapore.

E. RENGAM

E.1. INTRODUCTION

The village of Rengam is located on the western fringe of Johor Tengah, 54 miles north of Johor Baharu, the state capital, (see map I), and 14 miles south of Kluang, the district centre. The population of the village is 2,871, and the village area is 137 acres. (a gross density of 21 persons per acre).

E.2. POPULATION

TABLE 1. RENGAM POPULATION

	MALES		FEMALES		TOTAL	
	1957	1970	1957	1970	1957	1970
Chinese	840	881	806	863	1,646	1,744
Malay	130	312	119	267	249	579
Indian	212	295	168	253	380	548
Others	-	--	-	-	-	-
TOTAL	1,182	1,488	1,093	1,383	2,275	2,871
INCREASE		306		290		596

Table 1 above compares the population of Rengam in 1957 and 1970. It shows a total increase of 26.2 percent for the last thirteen years, an annual growth of only 1.8 percent, as compared with Johor State average of 2.7 percent. It is evident that there has been considerable outward migration from Rengam. According to local residents, many people particularly Chinese migrate in search of better employment opportunities in other urban centres.

There are 480 families comprising of 59.5 percent Chinese, 21 percent Malays and 19.5 percent Indian. The average family size of all ethnic groups is 6.4 persons, with Chinese families the largest (6.7).

E.3. EMPLOYMENT AND INCOME

52.6 percent of the total population are in the working age group and of these 57.4 percent are employed. The type of jobs are shown in table 5 appendix. Oil palm, rubber estates and commerce are the main sources of employment.

On average the estimated monthly income amounts to about \$125 per working person, and \$270 per family.

Although in general the Malays have more workers per family, they have lower total family incomes than the Chinese.

E.4. VILLAGE CENTRE

The village centre is situated on the banks of S. Sayong. The shopping centre comprises of five rows pre-war double storey permanent buildings and two rows of temporary stalls. Most of the shops are located on the east bank of S. Sayong.

Table 7 appendix E shows the number and type of shops in Rengam. The ratio of 1 shop to 34 persons indicated that Rengam not only serves its own population but also the small settlements in the surrounding agricultural area.

E.5. COMMUNICATIONS

The village is linked to other parts of the state by road and rail. There are regular bus and taxi services to Ayer-kuning, Simpang Rengas, Alor Gajah and some of the major towns together with school bus services.

E.5. EDUCATION

SCHOOL	MEDIUM	ENROLMENT	TEACHER
1. Jubli Intan Primary School	English	780	21
2. Rengam Primary School	Malay	227	9
3. Chin Chiang Primary	Chinese	570	18
4. Tamil Primary	Tamil	224	8
5. Primary School Total	4	1801	56
6. Dato Hi. Yunus Secondary School	English/ Malay	1208	47

There are four primary schools in four mediums of instruction enrolling 1,801 pupils and 47 teachers. The only secondary school in Rengam conducts morning and afternoon sessions in English and Malay respectively. The Education Department has acquired a site for a separate Malay secondary school.

In Rengam there are 508 children within the age of 7-12 years and of these, 456 attend primary school. 75 percent of the children attending primary schools come from outside Rengam, from places as far as Simpang Rengam and Layang-layang.

Only 196 children out of a total 370 children in the secondary schooling age attend school i.e. a secondary school attendance rate of 53 percent (see table 6 appendix E). Of the secondary school children 80 percent came from areas outside Rengam. The reasons given by local residents for the low attendance rate in Rengam concerning the lack of facilities only appear justified in the case of the Chinese as a Chinese secondary school is only available in Kluang, 14 miles away.

E.6. HEALTH

The only health and medical facilities in Rengam is a small private clinic. Villagers have to travel to either Kluang or Johor Baharu for most forms of treatment.

E.7. COMMUNICATIONS

The village is linked to other parts of the state by road and rail. There are regular bus and taxi services to Layang-layang, Simpang Rengam, Kluang and some of the major estates together with school bus services.

The railways provide both passengers and goods services. There are a total of eight trips a day to Kluang and Johor Baharu except on Sundays.

E.8. SOCIAL AND CULTURAL

There are two Chinese temples, a Mosque, and Indian Temple, one small cinema and three club and association buildings in the town. The community hall, which also houses the local council's office is situated near the post office in front of the village playing field.

F. LAYANG-LAYANG

F.1. INTRODUCTION

Layang-layang is a small agricultural village with a predominately Chinese population of 2,600. It was established during the "Emergency". It is situated on the south western edge of the Johor Tengah project region, along the north-south railway line; 50 miles north of the state capital, Johor Baharu and 22 miles south of the district capital, Kluang.

F.2. POPULATION

	MALE		FEMALE		TOTAL	
	1957	1970	1957	1970	1957	1970
Chinese	989	1,114	902	1,004	1,891	2,118
Malay	119	202	111	224	230	426
Indian	75	58	56	40	131	98
TOTAL	1,183	1,374	1,069	1,268	2,252	2,642
INCREASE		+191		+199		+390

The table above compares the population of 1957 and 1970. Within the local council area of 110 acres the total population recorded in 1970 was 2,642 (a gross density of 24 persons per acre). Layang-layang's intensity of settlement is comparable to Rengam's density of 24 p.p.a.

Its annual increase of 1.3 percent is low compared to the Johor State average 2.7 percent. This probably results from outward migration.

Chinese form the main ethnic group with 280 families (79 percent). There are 71 Malay families (15 percent) and 29 Indian families (6 percent).

The average family size for all races is 5.5 persons per family (table 2 appendix F).

The predominant age group is 7-14 years; which accounts for 22 percent of the total village population.

F.3. EMPLOYMENT AND INCOME

The total number of employed persons is 903 of which 619 are males and 284 females. 60 percent of the workers are employed in rubber or oil palm estates, mostly within a radius of 5 miles. However some work places are as far as 10-15 miles away. Ten percent of the workers are vegetable gardeners and the rest are employed in commercial, odd jobs and government services (table 4 appendix F).

Only 34 percent of the total population are employed though more than half (54 percent) of the villagers are in the working age group of 15-65 years.

Estimated incomes are \$125 per working person per month and \$236 per family per month.

On average, one person per family is employed.

F.4. TOWN CENTRE

The town centre comprises of two rows of old timber shophouses and ten new buildings.

Altogether there are 81 shops in Layang-layang. (table 6 appendix F). The high ratio of one shop to 33 people indicates that the centre not only provide services to its own population but also the regions around it which are mainly FLDA settlement schemes, and oil palm and rubber estates.

F.5. EDUCATION

There is only one primary school within the local council area. This Chinese school has thirteen classrooms, 600 pupils and 19 teachers.

Out of 404 children within the age group of 7-12 years, 336 go to school, (attendance rate of 83.2 percent). Local pupils account for only 56 percent of the total school enrolment, thus indicating that the school serves the surrounding areas as well.

Only 103 children out of the 209 children within the age group of 13-18 years attend school. This low percentage is mainly due to the lack of local secondary education

facilities and the general low incomes of the residents. Secondary school students have to travel eight miles to Rengam or find accommodation in Kluang or Johor Baharu.

F.6. HEALTH

There is a maternity clinic and a dispensary in Layang-layang. A mobile clinic from Kluang visits the village once a month.

For comprehensive medical treatment, the villagers go to Kluang or Johor Baharu.

F.7. SOCIAL AND CULTURAL

The Chinese Chamber of Commerce shares a building with the local council. The other facilities available are shown in the table below:-

Chinese Temple	3
Mosque	1
Church	1
Cinema	1
Association	1
Balai Raya	1
Basket Ball Court	1

F.8. COMMUNICATIONS

As Layang-layang is off the main Federal road system the only good linkage is provided by railway line for both passengers and goods. On week days, passenger transportation is available 5 times a day and on Sundays 3. Goods transport is available twice daily.

Road linkage with the north-south trunk road is poor, as the link road is narrow and poorly maintained. However, this road is being improved at present, and this will facilitate private and commercial vehicular traffic movements.

G. SCUDAI

G.1. INTRODUCTION

The village of Scudai is located 10 miles north of the state capital, Johor Baharu along the north/south trunk route. The local council area is 130 acres and has a population of 2,841 (a gross density of 21 p.p.a.).

G.2. POPULATION

The population statistics of the village for 1957 and 1970 are as follows:

Ethnic Group	Male		Female		Total	
	1957	1970	1957	1970	1957	1970
Chinese	862	147	795	895	1657	1042
Malay	101	373	85	371	186	744
Indian	83	128	56	127	139	255
TOTAL	1,046	1,448	956	1,393	1,982	2,341
INCREASE	402		457		859	

While the village is still predominantly Chinese, the 1957 percentage of 83 had by 1970 dropped to 65. There has been a considerable increase in the Malay population.

An overall population increase is 2.8 percent increase per annum. This is close to national trends.

Table 1 appendix G shows the population age structure of Scudai. More than half (55 percent) of the population is less than 20 years old.

There are 401 families in Scudai with average family size of 6.8 persons per family. On average, the Chinese (7.5 p.p.f) have the largest family sizes.

G.3. EMPLOYMENT AND INCOME

53 percent of the available work force in the age group of 15-65 years are employed. Their jobs are shown in Table 5 Appendix G. 600 of the 837 working persons are male.

The three main employment sources are commerce, agriculture, and industry. This account for 57 percent of total employment.

The average family income per month is \$250 while the personal income is \$120. (see table 3,4 and 5 appendix G).

G.4. VILLAGE CENTRE

The centre comprised of two rows of 2 storeyed buildings along trunk route to Johor Baharu. These buildings were largely built before the second world war and are of permanent construction. The ground floors are generally

shops while the upper floors are used residential purposes. A typical shop lot measures 18' x 100'. The number and type of shops available is shown in table 7.

G.5. EDUCATION

There are two primary schools and no secondary school within the local council area.

School	Medium	Pupils	Teachers
Pu Sze Chinese Primary School	Chinese	474	13
Sekolah Keb. Rendah	Malay	386	16
	TOTAL	860	29

The total enrolment of the two schools is 860 students and 29 teachers. The student/teacher ratio is 1 : 36 in the Chinese school and 1 : 24 in the Malay school.

In Scudai there are 529 children within the age group of 7-12 years and 462 attend school, indicating a school attendance rate of 90 percent. Since only 53 percent of the students are local residents, the catchment areas of the schools extend beyond the local council boundaries.

Secondary school attendance is poor (50 percent) because of low incomes and the lack of facilities within the village. Students have to travel more than ten miles to either Johor Baharu or Kulai.

G.6. HEALTH

There is only one maternity clinic in the village. The only additional facilities are provided by visits of a mobile clinic weekly and a "mobile woman and child clinic" twice monthly.

H. MASAI

H.1. INTRODUCTION

Masai is a settlement established during the "Emergency" to control movement in the rural areas. This village is predominantly Chinese. It is situated 16 miles to the east of Johor Baharu, the state capital, and is close to the proposed Johor Baharu port site.

H.2. POPULATION

The survey covered two thirds of the local council area of 156 acres. The population recorded was 1,064.

comprising of 70 percent Chinese, 16 percent Malays and 14 percent Indians.

Table 1 appendix H shows the population structure. 43 percent of the population are below 14 years old and 55 percent are in the 15-65 age group.

The average household size is 6.1 persons per household. (see table 2 appendix H).

H.3. EMPLOYMENT AND INCOME

Table 5 appendix H shows the employment pattern of Masai. Commerce and estates are the two main sources of employment in total providing nearly 80 percent of all jobs.

Only 50 percent of the population in the 15-65 years age group are employed. 80 percent of the current working force is male.

The average income per person per month is \$150, while the average family income per month is \$242.

The level of income is fairly uniform among the ethnic groups and on average there are 1.7 workers per family.

H.4. TOWN CENTRE

The main shopping centre is situated along both sides of the main road. Table 7 appendix H shows the shop types and numbers. Most of the 90 shops are of single storey temporary structures. The ratio of 11 person per shop suggests that the centre serves the surrounding kampongs and rubber estates. With the development of the proposed port nearby, the further commercial growth of Masai appears probable.

H.5. EDUCATION

There are three primary schools in the local area - one Malay medium, one Chinese and one Tamil.

Out of the 200 children within the age group of 7-12 years, 176 attend school.

The secondary school attendance is low (42 percent). There are no facilities in Masai. Only 72 children attend school out of 170 children in the 15-18 year age group.

H.6. HEALTH

As well as the local subhealth centre, there is the

mobile clinic which visits the town four times a week.

H.7. CULTURAL AND SOCIAL

There is a Temple, a Community Hall, a Police Substation, and Old Folks club in the town, as well as a local cinema which operates occasionally.

H.8. COMMUNICATION

Masai is 8 miles off the main route from Johor Baharu to Kota Tinggi. The only linkage to both the towns is by road. There are regular bus and taxi services to Johor Baharu.

I. SEDILI BESAR

I.1. INTRODUCTION

Sedili Besar, a small fishing village at the northeastern corner of Tanjong Penggerang, is situated on a narrow coastal strip at the mouth of S. Sedili. It is 44 miles north east of Johor Baharu, the state capital, and 18 miles east of Kota Tinggi, the district capital.

I.2. POPULATION

The population of 1,660 occupies a local council area of 230 acres (a gross density of 7.2 persons per acre). The growth rate is well below the national average due to outward migration. According to local residents the local youths migrate to other areas in search of employment because of the limited opportunities available locally, and their preference for jobs other than fishing - the traditional base of the village.

The village has 297 families comprising of 83.5 percent Malays, 15 percent Chinese and 2 percent Indian. The average household size is 5.8 persons (table 2 appendix I).

Table 1 appendix I shows the population structure of the village. 47 percent of the total population are below 14 years old while 50.7 percent are in the 15-65 age group.

I.3. EMPLOYMENT AND INCOME

The employment opportunities in Sedili Besar are largely limited to fishing and commerce. These provide 80 percent of the total employment (see table 5 appendix I). Only 23.2 percent of the total population are employed.

There are 385 employed persons in Sedili Besar. Average incomes are about 990 per working person per month,

and \$118 per family per month. The average family has 1.7 workers per household.

I.4. VILLAGE CENTRE

The village centre consists of two parallel rows of single storey terrace houses made of timber. There are 20 shops. (table 7 appendix I). The poor condition of buildings and the amount of goods offered for sale reflect the economic situation of the village.

The catchment area of Sedili Besar is limited to its local council boundary.

I.5. EDUCATION

Sedili Besar has one Chinese primary school with 91 pupils and 4 teachers, and a Malay primary school with 245 pupils and 9 teachers. The teacher/student ratio in the Chinese and Malay schools is 1 : 22 and 1 : 26 respectively.

There are 330 children within the age of 7-12 years and of these 299 attend schools. This is 89 percent of the total enrolments in both schools, indicating that 10 percent of the pupils come from outside Sedili Besar.

Secondary school attendance is very low (37 percent). There are no secondary schools in Sedili Besar, and students have to travel 18 miles to Kota Tinggi.

There are no students in the upper secondary or university level.

I.6. HEALTH

There is a clinic with only a mid-wife in attendance. The medical officer from Kota Tinggi visits the village twice a month. For more extensive medical treatment villagers have to go to Kota Tinggi or Johor Baharu.

I.7. SOCIAL AND CULTURAL

Sedili Besar has a community hall, a mosque, a temple and a small cinema which operates occasionally.

I.8. COMMUNICATIONS

Sedili Besar is linked to Tanjong Lembu, the road terminus from Kota Tinggi, by a passenger ferry which operates at 30 minute intervals. From Tanjong Lembu, bus and taxi services are available to and from Kota Tinggi.

J. KUKUP

J.1. INTRODUCTION

Kukup is a small fishing village situated at the western tip of Johor facing the Straits of Malacca. It is about one mile from Permas, the shopping and administrative centre of Kukup. The village is located 12 miles south of Pontian Kechil, the district capital and 49 miles west of the state capital Johor Baharu.

It is a popular day trip destination owing to the reputation of its sea food restaurants.

J.2. POPULATION

The survey covered four-fifths of the total village area. The population of the surveyed area was 901. The people are mainly Chinese (80.4 percent).

Table 1 appendix J shows the age structure of the population. 45 percent of the population are below 14 years old while 51 percent are in the working age group of 15-65 years. 54.5 percent of the population are males and 45.5 percent females.

The houses are crowded along the main road linked by catwalks over the sea. The population density is high (28 p.p.a) compared to other fishing villages like Sedili Besar which has a density of 7.2 p.p.a.

The average household size is 8.2 persons per household, and 60 percent of the Chinese families have 8-12 persons per household (see table 2 appendix J).

J.3. EMPLOYMENT AND INCOME

52 percent of the population are in the working age group of 15-65 years and out of these 42.7 percent are employed. Only 22 percent of the total population are employed and out of these only 3 percent are females. The low percentage of female employees is because fishing the main source of employment, offers little scope to female workers and there are few other opportunities.

Table 5 appendix J shows the employment pattern in Kukup. Fishing is the main source of employment (79 percent) while commerce tourism account for 15 percent.

The average monthly incomes are about \$100 per employed person and \$180 per family.

There are 1.7 workers in the average family.

J.4. VILLAGE CENTRE

The village centre comprises of 13 old timber shop-houses clustered at the end of the main road from Pontian Kechil.

Type	No.
Sundry Shop	7
Coffee/Soft Drinks	2
Restaurants/Eating Shops	2
Fish Wholesalers	1
Prawn Crackers Manufacturer	1
TOTAL	13

The local residents say they travel to Pontian to do most of their shopping, as the range of services available is limited and the local shops cater mainly for tourists.

J.5. EDUCATION

There are two Chinese primary schools with 320 pupils and 13 teachers. The schools are built on stilts above the swampy beach, and have no playgrounds.

There is no Malay or English primary school in Kukup, as the number of Malay children is very small. There are 157 Chinese children in the school going age group. Of these, 125 attend school. This accounts for 39 percent of the pupils in the two Chinese schools, indicating 60 percent of those attending come from outside the village.

The secondary school attendance rate is low (22 percent). Students have to travel 12 miles to Pontian Kechil for their secondary education as there is no school in the village.

J.6. HEALTH

There are no medical facilities in Kukup, except for a small dispensary in Permas. The residents go to Pontian Kechil for treatment.

J.7. COMMUNICATION

Kukup is linked to other parts of the state by road via Pontian. Irregular bus and taxi services are available.

CONCLUSION

1. POPULATION

It is apparent from the survey that there is a considerable migration into large urban centres. The higher growth rates in urban centres have been off set by the low growth rate in the rural settlements. Kota Tinggi, Layang-layang, Rengam, Sedili Besar, Masai and Kukup have expanded at 0-2 percent, for example.

A number of reasons were given by people for urban migration, common among which are the lack of employment opportunities and the limited availability of social and service facilities in rural areas. The trend would likely to continue unless positive planning is taken to provide better employment opportunities and service facilities in rural areas.

Thus it appears reasonable for planning purposes to assume the growth rate of 5 percent for Johor Baharu, and 4-5 percent for Kluang and Kulai. Though Kota Tinggi has recently only had a growth rate of less than 1 percent, this may increase rapidly if steps are taken to encourage its planned expansion and redevelopment, in the context of its potential resulting from the development of the project regions, and its location on the increasingly important national east west route, so close to Johor Baharu and the new port.

There is no marked difference in the age structure and the household size of the population as between urban and rural settlements. On average about 42 percent of the population are below 14 year old, 55 percent in the age group of 15-65 years, and 3 percent are more than 65 years old.

The average household size of the ethnic groups is about 5.8 person per household. The Chinese has the largest household size 6.7, Malays 6.3 and Indian 4.5. It is also apparent the families with lower incomes tend to have larger family size (see table 1 below).

TABLE 1. HOUSEHOLD SIZE AND INCOME

SETTLEMENTS	HOUSEHOLD SIZE			WORKERS/HOUSEHOLD			MONTHLY INCOME	
	M	C	I	M	C	I	₹/Person	₹/Household
Johor Baharu*	5.7	6.8	6.2	1.1	2.7	1.5	280	440
Kluang*	6.0	6.5	5.5	1.4	2.0	1.5	170	300
Kota Tinggi	6.4	6.5	4.8	1.4	1.9	1.4	175	300
Kulai	5.5	6.2	5.0	1.4	2.0	1.4	170	320
Layang ²	6.0	6.2	3.8	1.7	2.2	1.2	125	240
Rengam	6.3	6.7	6.2	2.8	2.3	1.5	125	265
Scudai	6.4	7.5	6.5	1.5	2.4	1.7	120	250
Masai*	6.5	6.6	5.3	1.7	1.9	1.5	150	240
S. Besar	5.8	5.8	2.3	1.3	1.6	2.3	90	120
Kukup	8.3	8.0	-	1.3	2.1	-	100	180
AVERAGE	6.3	6.7	4.5	1.5	2.1	1.4	-	-

* 100 percent sample of selected areas are taken.

2. INCOME

The income per working person per month in large urban centres like Johor Baharu, Kluang and Kulai is slightly higher than those in small centres such as, Rengam, Layang-layang, Sedili Besar and Kukup. The large urban centres not only provide better employment opportunities and in general better wages, but also have a higher proportion of workers in commerce and industry, compared with the small centres and villages in agricultural and fishing areas.

The household income depends on the number of workers per household and the earning power of the workers. Generally, Chinese families have higher household income partly because they have more workers per household 2.1 as compared to the Malays or Indian who have 1.5 and 1.4 workers per household, respectively. On in the total survey, there were 1.6 workers per household (see table 1).

TABLE 2 COMMODITY OWNERSHIP PER PERSON

CENTRES	CARS			M/CYCLE			CYCLE			LUXURY GOODS (2)			KEROSENE + WOOD COOKER							
	C	M	I	TOTAL	C	M	I	TOTAL	C	M	I	TOTAL	C	M	I	TOTAL				
Johor Bahru(1)	1:17	1:22	1:15	1:18	1:25	1:60	1:53	1:53	1:13	1:27	1:31	1:27	1:13	1:22	1:14	1:17	1:9	1:9	1:9	
Kluang(1)	1:55	1:54	1:59	1:56	1:39	1:55	1:63	1:45	1:9	1:9	1:13	1:9	1:27	1:26	1:22	1:27	1:7	1:6	1:6	1:7
Kota Tinggi	1:45	1:63	1:38	1:54	1:59	1:52	1:50	1:57	1:8	1:9	1:7	1:8	1:23	1:24	1:14	1:23	1:8	1:6	1:5	1:7
Kulai	1:52	1:61	1:63	1:53	1:53	1:86	1:63	1:56	1:9	1:20	1:10	1:9	1:30	1:27	1:26	1:29	1:7	1:6	1:6	1:7
Layang-layang	1:56	1:429	-	1:68	1:21	1:94	1:107	1:25	1:4	1:28	1:9	1:5	1:36	1:54	1:27	1:42	1:5	1:6	1:4	1:6
Rengan	1:75	1:93	1:78	1:82	1:33	1:72	1:92	1:43	1:7	1:13	1:12	1:8	1:28	1:29	1:30	1:28	1:7	1:7	1:7	1:7
Scudai	1:63	1:195	-	1:81	1:63	1:147	-	1:84	1:13	1:14	1:13	1:13	1:32	1:31	1:29	1:30	1:15	1:6	1:6	1:10
Masai(1)	1:22	-	1:116	1:27	1:37	1:24	1:58	1:37	1:15	1:12	1:12	1:13	1:16	1:20	1:33	1:22	1:10	1:6	1:7	1:7
S. Besar	1:137	1:684	-	1:414	-	-(3)	-	-	1:23	1:40	1:5	1:34	1:27	1:47	1:24	1:41	1:6	1:5	1:3	1:6
Kukup	1:719	1:82	-	1:450	-(3)	-	-	-	1:90	1:30	-	1:64	1:80	1:72	-	1:69	1:8	1:9	-	1:8

NOTE: (1) Samples of selected areas only.

(2) LUXURY GOODS includes: refrigerator, television, electric fan, radio, sewing machine, gas and electric cookers, and the ratios given are the average between the ownership of each item.

(3) Only 1 figure obtained, therefore no figures given.

TABLE 3.

COMMODITY OWNERSHIP PER HOUSEHOLD

HOUSEHOLD INCOME GROUP (DOLLARS PER MONTH)		HOUSEHOLD NO.				CAR				MOTOR-CYCLE				BICYCLE				LUXURY GOODS (2)				FUEL COOKERS			
		C	M	I	T	C	M	I	T	C	M	I	T	C	M	I	T	C	M	I	T	C	M	I	T
JOHORE BAHARU ⁽¹⁾	0 - 150	11	49	15	75	1:11	1:49	-	1:38	1:4	1:5	1:15	1:8	-	1:3	1:5	1:4	1:8	1:6	1:5	1:6	1:1	1:1	1:1	1:1
	160 - 300	34	45	12	91	1:6	1:6	1:4	1:6	1:17	1:15	1:6	1:13	1:6	1:5	1:12	1:5	1:3	1:2	1:3	1:3	1:2	1:1	1:1	1:1
	310 - 500	21	34	13	68	1:2	1:3	1:2	1:2	1:7	1:7	1:7	1:7	1:4	1:4	1:2	1:4	1:4	1:2	1:2	1:2	1:2	1:2	1:2	1:2
	510 ⁺	29	37	17	83	1:2	1:1	1:1	1:6	1:7	1:17	1:8	1:3	1:6	1:9	1:5	1:2	1:1	1:1	1:1	1:1	1:2	1:4	1:2	1:3
	TOTAL	95	165	57	317	1:3	1:4	1:2	1:3	1:7	1:9	1:10	1:9	1:5	1:4	1:5	1:4	1:2	1:2	1:2	1:2	1:2	1:1	1:1	1:1
KLUANG ⁽¹⁾	0 - 150	428	245	56	729	1:54	1:41	1:56	1:49	1:14	1:27	1:56	1:18	1:2	1:2	1:3	1:2	1:8	1:6	1:9	1:8	1:1	1:1	1:1	1:1
	160 - 300	784	337	64	1185	1:18	1:12	1:16	1:15	1:7	1:11	1:6	1:8	1:1	1:2	1:3	1:1	1:5	1:4	1:4	1:5	1:1	1:1	1:1	1:1
	310 - 500	445	111	35	591	1:6	1:4	1:12	1:6	1:4	1:6	1:7	1:4	1:1	1:1	1:2	1:1	1:4	1:3	1:3	1:3	1:1	1:1	1:1	1:1
	510 ⁺	328	51	17	396	1:3	1:2	1:2	1:3	1:3	1:4	-	1:4	1:1	1:2	1:3	1:1	1:2	1:3	1:2	1:2	1:1	1:1	1:1	1:1
	TOTAL	1985	744	172	2901	1:8	1:9	1:11	1:9	1:6	1:11	1:11	1:7	1:1	1:2	1:2	1:1	1:4	1:4	1:4	1:4	1:1	1:1	1:1	1:1
KOTA TINGGI	0 - 150	194	172	25	391	1:97	1:172	-	1:130	1:22	1:22	1:25	1:22	1:1	1:2	1:1	1:1	1:6	1:7	1:8	1:7	1:1	1:1	1:1	1:1
	160 - 300	310	162	19	491	1:15	1:15	-	1:15	1:9	1:7	1:10	1:8	1:1	1:1	1:1	1:1	1:4	1:3	1:4	1:4	1:1	1:1	1:1	1:1
	310 - 500	170	44	10	224	1:6	1:7	1:10	1:6	1:7	1:6	1:5	1:6	1:1	1:1	1:3	1:1	1:3	1:3	1:3	1:3	1:1	1:1	1:1	1:1
	510 ⁺	116	39	11	166	1:3	1:2	1:1	1:2	1:6	1:4	-	1:5	1:1	1:1	1:3	1:1	1:2	1:2	1:2	1:2	1:1	1:1	1:1	1:1
	TOTAL	790	417	65	1272	1:8	1:10	1:7	1:9	1:9	1:8	1:13	1:9	1:1	1:1	1:2	1:1	1:4	1:4	1:4	1:4	1:1	1:1	1:1	1:1
KULAI	0 - 150	342	88	46	476	1:43	1:44	-	1:48	1:24	1:88	1:23	1:28	1:2	1:3	1:2	1:2	1:9	1:9	1:9	1:9	1:1	1:1	1:1	1:1
	160 - 300	718	89	30	837	1:13	1:45	1:30	1:14	1:9	1:9	1:15	1:9	1:1	1:3	1:1	1:1	1:5	1:5	1:1	1:1	1:1	1:1	1:1	1:1
	310 - 500	403	34	15	452	1:6	1:7	1:4	1:6	1:5	1:34	1:8	1:6	1:1	1:4	1:3	1:1	1:3	1:3	1:1	1:1	1:1	1:1	1:2	1:1
	510 ⁺	183	15	5	203	1:3	1:1	1:2	1:2	1:6	1:5	1:3	1:6	1:1	1:5	1:5	1:1	1:3	1:3	1:3	1:3	1:1	1:2	1:2	1:1
	TOTAL	1646	226	96	1968	1:8	1:12	1:12	1:8	1:8	1:15	1:12	1:9	1:1	1:4	1:2	1:1	1:4	1:5	1:5	1:5	1:1	1:1	1:1	1:1
LAYANG ₂	0 - 150	76	18	16	110	-	-	-	-	1:7	1:9	-	1:8	1:1	1:2	1:3	1:1	1:13	1:18	1:16	1:16	1:1	1:1	1:1	1:1
	160 - 300	143	45	8	196	1:10	1:45	-	1:12	1:5	1:6	1:8	1:5	1:1	1:1	1:1	1:1	1:7	1:6	1:8	1:7	1:1	1:1	1:1	1:1
	310 - 500	66	5	3	74	1:9	-	-	1:11	1:2	1:2	-	1:2	1:1	1:1	1:1	1:1	1:5	1:5	1:3	1:5	1:1	1:1	1:1	1:1
	510 ⁺	29	1	-	30	1:4	-	-	1:4	1:1	-	-	1:1	1:1	-	-	1:1	1:3	1:4	-	1:3	1:1	-	-	1:1
	TOTAL	314	69	27	410	1:10	1:69	-	1:13	1:3	1:5	1:27	1:4	1:1	1:1	1:1	1:1	1:6	1:7	1:9	1:7	1:1	1:1	1:1	1:1

Contd. Table 3.

RENGAM	0 - 150	71	52	48	171	1:36	1:26	1:48	1:34	1:36	1:26	1:24	1:29	1:1	1:2	1:2	1:2	1:6	1:5	1:10	1:7	1:1	1:1	1:1	1:1
	160 - 300	112	31	27	170	1:12	1:31	1:7	1:12	1:4	1:10	-	1:6	1:1	1:6	1:2	1:1	1:4	1:4	1:4	1:4	1:1	1:1	1:1	1:1
	310 - 500	50	1	6	57	1:6	-	1:3	1:5	1:3	-	1:6	1:4	1:1	1:1	1:3	1:1	1:3	1:2	1:2	1:3	1:1	1:1	1:1	1:1
	510 ⁺	23	6	5	34	1:4	-	1:3	1:4	1:2	1:2	1:5	1:2	1:1	1:6	1:3	1:1	1:3	1:2	1:2	1:2	1:1	1:2	1:2	1:1
	TOTAL	256	90	86	432	1:10	1:30	1:9	1:11	1:5	1:11	1:22	1:6	1:1	1:3	1:2	1:1	1:4	1:4	1:4	1:5	1:5	1:1	1:1	1:1

SCUDAI	0 - 150	53	51	11	115	1:53	-	-	1:115	1:14	-	-	1:29	1:2	1:2	1:3	1:2	1:7	1:7	1:6	1:6	1:1	1:1	1:1	1:1
	160 - 300	101	32	15	148	1:8	1:16	-	1:10	1:11	1:16	-	1:13	1:1	1:8	1:2	1:2	1:4	1:4	1:5	1:4	1:1	1:1	1:1	1:1
	310 - 500	44	6	4	54	1:4	1:6	-	1:4	1:15	1:6	1:4	1:11	1:2	1:3	1:1	1:2	1:3	1:3	1:2	1:3	1:1	1:1	1:1	1:1
	510 ⁺	27	2	1	30	1:3	-	-	1:3	1:3	1:2	-	1:3	1:1	1:14	1:1	1:1	1:3	1:3	1:4	1:3	1:1	1:1	1:1	1:1
	TOTAL	225	91	31	347	1:6	1:30	-	1:9	1:9	1:23	1:31	1:12	1:2	1:4	1:2	1:2	1:4	1:4	1:5	1:4	1:4	1:1	1:1	1:1

MASAI ⁽¹⁾	0 - 150	28	15	16	59	1:9	-	1:16	1:15	1:4	1:4	1:8	1:7	1:3	1:3	1:2	1:3	1:4	1:8	1:5	1:4	1:2	1:1	1:1	1:1
	160 - 300	48	9	10	67	1:5	1:5	-	1:6	1:5	1:9	-	1:6	1:2	1:3	1:2	1:2	1:3	1:3	1:5	1:3	1:3	1:1	1:1	1:1
	310 - 500	13	3	2	18	1:1	-	-	1:2	1:2	1:3	-	1:3	1:1	1:3	1:1	1:1	1:1	1:1	1:6	1:4	1:2	1:1	1:3	1:1
	510 ⁺	13	-	-	13	1:2	-	-	1:2	-	-	-	1:4	1:2	-	-	1:2	1:2	1:2	-	-	1:2	-	-	1:2
	TOTAL	102	27	28	157	1:3	1:14	1:28	1:4	1:17	1:5	1:14	1:5	1:2	1:3	1:2	1:2	1:2	1:2	1:6	1:4	1:3	1:1	1:1	1:1

SEDILI BESAR	0 - 150	64	174	-	238	-	-	-	-	-	-	-	-	1:16	1:6	-	1:7	1:12	1:8	-	1:9	1:3	1:1	-	1:1	
	160 - 300	12	28	-	40	-	-	-	-	-	-	-	-	1:4	1:3	-	1:3	1:4	1:4	1:4	-	1:4	1:2	1:1	-	1:1
	310 - 500	2	3	-	5	-	-	-	-	-	-	-	-	-	-	-	-	1:7	1:5	1:5	-	1:6	1:2	1:1	-	1:1
	510 ⁺	1	2	-	3	-	1:2	-	1:3	-	1:2	-	1:3	-	1:2	-	1:3	1:10	1:3	1:3	-	1:3	1:1	1:1	-	1:1
	TOTAL	79	207	-	286	-	1:104	-	1:143	-	1:207	-	1:286	1:11	1:5	-	1:6	1:9	1:7	1:7	-	1:7	1:2	1:1	-	1:1

KUKUP	0 - 150	40	14	-	54	-	1:14	-	1:54	1:40	-	-	1:54	1:13	1:7	-	1:11	1:4	1:13	-	1:14	1:1	1:1	-	1:1
	160 - 300	39	6	-	45	1:39	-	-	1:45	-	-	-	-	1:20	1:2	-	1:8	1:8	1:5	-	1:8	1:1	1:1	-	1:1
	310 - 500	9	1	-	10	-	-	-	-	-	-	-	-	-	-	-	-	1:5	1:5	-	1:5	1:1	1:1	-	1:1
	510 ⁺	4	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	1:7	1:7	-	1:7	1:1	-	-	1:1
	TOTAL	92	21	-	113	1:92	1:21	-	1:57	1:92	-	-	1:115	1:18	1:4	-	1:10	1:9	1:9	1:9	-	1:9	1:1	1:1	-

(1) Samples of selected areas only.

(2) Luxury goods includes: refrigerators, televisions, electric fans, radios, sewing machines, gas and electric cookers, and the ratios given are the average between the ownership of each item.

ACCOMMODATION

TABLE 4

CENTRES	ACCOMMODATION TYPE				OWNERSHIP				AGE OF BUILDINGS*			LAND OWNERSHIP		
	DETACHED	S/DETACHED	TERRACE	ROOMS	OWN	RENT	QTS.	OTHS	OLD +5 YRS	NEW 5 YRS	OWN	RENT	STATE	NOT KNOWN
Johor Bahru	35.1	17.4	43.9	3.1	34.3	47.4	18.0	0.3	66.4	30.5	19.0	14.0	25.5	41.4
Kluang	44.5	23.2	24.9	7.4	43.9	48.0	4.1	3.9	83.4	9.2	22.2	0.4	22.4	55.0
Kota Tinggi	42.0	11.6	36.8	9.7	44.3	35.7	18.0	1.9	75.2	15.1	31.7	29.2	12.5	26.6
Kulai	31.2	18.5	41.3	8.9	54.3	26.8	11.0	7.8	73.7	17.4	16.2	7.1	30.1	46.6
Rengam	33.6	11.1	46.5	8.9	35.0	29.4	33.9	1.8	85.6	5.5	20.1	3.8	22.4	53.8
Layang2	64.7	1.4	23.6	10.3	60.3	25.4	7.2	7.0	77.9	11.8	37.8	4.8	40.1	17.4
Scudai	42.1	4.6	45.3	8.0	50.4	37.3	10.0	2.3	80.8	11.1	25.2	9.2	10.9	54.7
Masai	18.7	3.5	64.3	13.5	45.6	43.9	5.3	5.3	79.0	7.7	17.5	2.3	25.2	55.0
Sedili Besar	73.4	3.7	20.2	2.7	82.8	14.5	-	2.7	88.2	9.1	23.6	42.1	17.8	16.5
Kukup	71.4	5.4	12.5	10.7	84.8	6.25	8.1	0.9	77.7	11.6	12.5	4.5	81.3	1.8
TOTALS	41.66	16.37	33.73	8.24	48.78	36.54	10.26	4.43	78.83	12.93	22.63	9.04	24.15	44.18

* Rooms are not classified.

3. COMMODITY OWNERSHIP

The summary table 2 compares type and range of commodities owned by people, ethnic groups and settlements. The figures for Johor Baharu, Kluang and Masai need to be treated with caution as 100 percent samples of limited areas only were made. For example, Masai's car ownership is higher than Kulai probably because more than half of the sample was taken in the central area of Masai.

By cross correlation between tables 1, 2 and 3 it is found that in general, for all commodities, the main significant variables are household and individual incomes, and ethnic group and location factors do not normally result in significant differences. However, as average incomes tend to be higher in urban areas as compared with rural areas, and the Chinese proportion of the population is higher in urban areas and the Malay proportion in rural areas, the ownership of various commodities varies between types of settlement and ethnic groups.

3.1 CARS

Johor Baharu, for example, with an average income level more than \$400 per household has one car to every three household, while Kluang, Kulai and Kota Tinggi with \$200 - \$300 income per household have one car to every 9 households. The same orders of vehicle ownership for the various income levels are to be found in each settlements and ethnic group. (For detail car ownership refer to Supporting Volumes 4 and 8 to the Master Plan).

3.2 MOTOR CYCLE

Motor cycle ownership varies according to type of settlements. Urban centres like Johor Baharu, Kluang, Kota Tinggi and Kulai served by good regular bus and taxi services, have slightly lower ownership ratio (1 : 50) as compared to Rengan, Layang2 and Masai (1 : 40). Seudai, through a rural settlements has 1 motor cycle to 64 person probably because of its proximity to Johor Baharu and Kulai and its location on the transportation services, running along national route one.

3.3 CYCLE

Income levels appear to be the variable factor in cycle ownership. On average, settlements with average household incomes between \$200-300 have one cycle to every

10 persons, while those with lower incomes have 1:50. However, when incomes increase to more than \$400 per month, the level of cycle ownership drops.

3.4 LUXURY ITEMS

For the ownership of luxury items such as refrigerators, televisions, electric fans, radios, sewing machines, gas and electric cookers, in urban areas, the average number of items owned is higher than in rural settlements.

Generally the Chinese have more luxury items in their homes because their family incomes are higher. However, within the same income levels, the Malays tend to own slightly more luxury items, for example, radio and television are not uncommon in a Malay house of \$150-200 income bracket.

3.5 KEROSENE AND FIREWOOD COOKERS

Ownership of essential items like kerosene and firewood cookers is fairly uniform in all settlements at all levels of income. The exception is Johor Baharu, where more people use gas and electric cookers, even in lower income groups.

4. ACCOMMODATION

Table 4 shows types of dwelling, age, and building and land ownership for the settlements surveyed.

While detached houses are the main dwelling type in rural areas there is a slight increase in the percentage of terrace homes in urban areas, e.g. Johor Baharu, Kulai, Masai and Scudai. In these areas Chinese families predominate, and with the exception of Johor Baharu, they are resettlement villages of the 'Emergency' period. Due to shortage of state land, construction speed and economy, and security considerations the majority of the dwellings were built in terraces. On average, detached houses are still the main type occupied (41.7 percent) as compared to either terrace (33.7 percent) or semi-detached houses (16.4 percent).

The percentage of owner-occupied dwellings varies with the type of settlements. For example, in remote areas like Sedili Besar and Kukup more than 80 percent of the dwellings are owner-occupied, while urbanised areas like Johor Baharu and Kluang the percentage drops to about

40 percent. On the other hand the percentage of rented dwellings in the latter areas increases to nearly 50 percent.

Housing conditions are fairly uniform in all settlements with about 78 percent old buildings (economic life of less than 30 years) and 13 percent new buildings.

The response to the land ownership question was poor, especially in Kluang, Masai, Scudai and Rengam, where half of the returns fail to record, or the respondents do not know, the ownership of the land their home occupied. Of those who answered, 24 percent of the housing sites were on state land, and 23 percent were in private ownership.

5. EDUCATION

TABLE 5. SCHOOL ATTENDANCE RATE

SETTLEMENTS	PRIMARY (7-12 YRS)	SECONDARY (13-18 YRS)	UPPER SECONDARY (19-20 YRS)
Johor Baharu	93.3	69.5	34.7
Kluang	88.9	55.4	8.8
Kota Tinggi	91.6	55.2	8.0
Kulai	87.3	52.4	10.8
Layang2	83.2	36.9	3.1
Rengam	89.8	53.0	7.5
Scudai	87.2	49.7	7.6
Masai	88.0	42.4	9.5
S. Besar	90.6	36.6	-
Kukup	78.3	22.0	-
AVERAGE	87.8	47.3	9.0

Table 5 records the school attendance rates in the settlements around the project region. These vary according to the availability of facilities and income levels. Johor Baharu has the highest attendance rate in all level of education, apparently because of the convenient availability of facilities and comparatively higher level of family income. Kukup and Sedili Besar has no students attending higher education.

School attendance among the Chinese is slightly higher than among the Malays or Indians.

On average the school attendance in primary school, secondary and sixth form is 87.8, 47.3 and 9 percent respectively.

According to present trends, in the short term, it may be reasonable to assume school attendance rates of 90 percent, 50 percent and 10 percent in the three levels of education respectively. However, the national objective for primary school attendance is 100 percent.

The survey has pointed out the marked difference between educational opportunities between urban and rural areas, and the need for detailed examination of policies in relation to educational planning and implementation in the rural parts of Johor, particularly for the various levels of secondary education.

6. HEALTH

Health facilities in most of the settlements surveyed are inadequately.

7. SOCIAL AND CULTURAL

Though the provision of social and cultural facilities varies from place to place, the following facilities are common to all settlements:-

Religious buildings (mosque, surau, temple and church depending on the religion of the residents)
Association - community hall or Balai Raya.

Cinemas only occur in large urban areas like Johor Baharu, Kluang, Kota Tinggi and Kulai but temporary cinema halls which operate occasionally are available in many other rural settlements.

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APPENDIX A
JOHOR BAHRU

TABLE A1: POPULATION STRUCTURE

Ethnic Group	Percentage of population							Total
	0-6	7-14	15-19	20-24	25-39	40-65	65+	
Chinese	17.0	25.1	13.6	12.6	16.6	13.6	1.5	100.0
Malay	14.9	17.1	14.0	16.9	22.1	14.4	0.7	100.0
Indian	15.6	22.8	15.8	8.3	17.8	17.2	2.5	100.0
Others								
Total	16.1	22.4	14.1	13.0	18.4	14.5	1.5	100.0

TABLE A2: HOUSEHOLD SIZE (%)

Ethnic Group	0-4	5-8	9-12	13+
Chinese	34.4	46.9	13.5	5.2
Malay	31.9	44.6	20.5	3.0
Indians	25.9	58.6	12.1	3.5
Others				
Total	31.6	47.8	16.9	3.8

TABLE A3: NUMBER OF WORKERS PER HOUSEHOLD (%)

Ethnic Group	1	2	3	4+
Chinese	11.5	16.9	7.6	4.1
Malay	54.3	20.2	13.8	11.7
Indian	66.7	19.3	10.5	3.5
Others				
Total	65.6	18.3	9.9	6.2

TABLE A 4 FAMILY INCOME

	None	\$1-150	\$150-300	\$301-500	\$501+
Chinese	0.9	10.1	31.2	31.2	26.6
Malay	0.6	28.9	27.7	20.5	22.3
Indian	-	27.3	20.0	23.6	29.1
Total	0.6	22.4	27.6	24.5	24.8

TABLE A.5 EMPLOYMENT PATTERN

Profession	Percent
Government Employee	29.8
Trade	19.8
General Labourers	9.0
Factory Workers	8.7
Teachers	6.8
Others	26.4
Total	100%

TABLE A 7 SCHOOL ATTENDANCE

Population

	7-12 yrs.	13-18 yrs.	19-20 yrs.
Chinese	93.1	71.0	27.5
Malay	97.2	71.4	36.5
Indian	80.3	61.4	42.9
Others	-	-	-
Total	93.3	69.5	34.7

TABLE A6 : SCHOOL TYPE & ENROLMENT

TYPE	NO. OF SCHOOL	ENROLMENT	PERCENT
KINDERGARDEN			
E	3	350	43
M	1	116	14
C	4	349	43
I	-	-	-
TOTAL	8	815	2%
PRIMARY			
E	12	11,069	53
M	14	4,952	23
C	7	4,500	21
I	3	489	3
TOTAL	37	21,010	59%
SECONDARY			
E	9	9,289	81
M	3	2,209	19
C	-	-	-
I	-	-	-
TOTAL	12	11,498	
PRIVATE			
E	3	975	
M	1	116	
C	1	1,244	
I	1	60	
TOTAL	6	2,395	
VOCATIONAL	4	473	
COMMERCIAL	3	1,681	
GRAND TOTAL	70	35,778	

TABLE A8

EXISTING LAND USE JOHORE BAHRU

ITEM	PERCENTAGE OF TOTAL				AREA IN ACRES	TOTAL
Residential	22.7	15.0	20.0	18.5	3,260	100
Commercial	22.7	13.5	10.9	17.5	87	100
Administration					142	
Railway Reserve		13.1	10.3	18.3	212	100
Industrial					325	
Public Purpose (including public utility reserve)					545	
Special Reserve (private)						
Special Reserve					138	100
Military Reserve					351	100
Public Open Space					123	
Education					231	
Cemetries					187	
Slums					37	
Rubber Land					2,138	
Market Gardening					263	
Metalled Roads					490	
Vacant					7,236	
Swamps					1,193	
					<u>17,268</u>	
					<u>TOTAL</u>	

NOTE: This is a rough estimate only.

APPENDIX B

KLUANGTABLE B 1: POPULATION STRUCTURE

ETHNIC GROUP	PERCENTAGE OF POP.							Total
	0-6	7-14	15-19	20-24	25-39	40-65	65+	
Chinese	16.2	22.7	13.0	10.0	18.4	16.0	3.7	100
Malay	20.5	23.7	13.5	10.9	17.5	13.0	1.0	100
Indian	15.4	23.7	12.7	11.8	17.4	17.9	1.1	100
Others								
Total	17.2	23.0	13.1	10.3	18.1	15.4	2.9	100

TABLE B 2: POPULATION

Year	Area in sq. miles	Density Person per sq. miles	Pop.	% Increase
1947	4.0	3,989	15,954	103
1957	4.3	7,548	32,457	87.9
1970	4.3	14,186	61,000	

TABLE B 3: HOUSEHOLD SIZE (%)

Ethnic Group	0-4	5-8	9-12	13+
Chinese	31.9	41.6	20.0	6.5
Malay	36.9	42.1	18.2	2.8
Indian	42.4	40.8	14.1	2.7
Others				
Total	33.8	41.7	19.2	5.3

TABLE B 4: NO OF WORKERS PER HOUSEHOLD (%)

Ethnic Group	1	2	3	4+
Chinese	47.9	24.7	13.7	13.7
Malay	71.5	19.2	6.7	2.6
Indian	63.9	23.1	8.3	4.7
Others				
Total	54.8	23.2	11.6	10.4

TABLE B 5: FAMILY INCOME (%)

	None	\$1-150	\$151-300	\$301-500	\$501+
Chinese	2.5	20.7	39.5	22.1	15.1
Malay	2.1	32.4	44.3	14.7	6.6
Indian	6.5	29.9	34.8	19.0	9.8
Others					
Total	2.7	24.2	40.3	20.1	12.6

TABLE B 6: EMPLOYMENT PATTERN

Profession	No.	Percentage
1. Commercial trade	1,879	34.7
2. Government service	559	10.3
3. Estate workers	469	8.7
4. Factory workers	410	7.6
5. Odd jobs	345	6.4
6. General labourers	320	5.9
7. Teachers	232	4.3
8. Others	1,200	22.2

TABLE B 7: SCHOOL TYPE & ENROLMENT

TYPE	NO. OF SCHOOL	ENROLMENT	TEACHERS	PERCENTAGE
KINDERGARTEN				
1. English	3	153	5	1:30
2. Malay	-	-	-	
3. Chinese	-	-	-	
4. Tamil	-	-	-	
Total	3	153	5	
PRIMARY				
1. English	4	3,371	88	33.2
2. Malay	4	1,461	47	14.4
3. Chinese	7	5,114	145	50.4
4. Tamil	1	209	8	2.0
Total	16	10,155	288	1:35
SECONDARY				
1. English	3	2,403	120	58.0
2. Malay	1	641	23	15.5
3. Chinese	1	1,100	32	26.5
4. Tamil	-	-	-	
Total	5	4,144	175	1:23
COMMERCIAL				
1. English	2	202	3	1:67
GRAND TOTAL	26	14,654	471	1:31
1. Kindergarten		1.0	1.1	
2. Primary		69.3	61.1	
3. Secondary		28.3	37.2	
4. Commercial		1.4	0.6	

TABLE B 8: SCHOOL ATTENDANCE

	Popul- tion 7 - 12	School Attend %	Popula- tion 13 - 18	School Attend %	Popula- tion 19 - 20	School Attend %			
Chinese	2,352	2,073	88.13	2,183	1,162	53.22	586	59	10.06
Malay	850	772	90.82	730	447	61.23	224	12	5.35
Indian	170	153	90.00	146	87	59.58	52	5	9.61
Others	-	-	-	-	-	-	-	-	-
Total	3,372	2,998	88.9	3,059	1,696	55.44	862	76	8.81

TABLE B 9: TOWN CENTRE

Type of shops	No.
1. Provision shop	44
2. Tailor shop	33
3. Restaurant/coffee shop	27
4. General merchandise	23
5. Radio/T.V. repairs and Electrical goods	15
6. Hotels	14
7. Barber shop	14
8. Hardware shop	12
9. Offices	11
10. Associations	10
11. Rubber dealers	9
12. Stationery	9
13. Photo studio	9
14. Medicine shop	8
15. Shoes shop	8
16. Beauty parlour	8
17. Stores	8
18. Dispensary	7
19. Dentist	6
20. Motor spare parts	6
21. Second-hand car/new car agents	6
22. Textile shops	5
23. Goldsmith	5
24. Furniture shop	5
25. Lady tailoring school	4
26. Engineering workshop	4
27. Watches/repairing	4

Contd.....

TABLE B 9: TOWN CENTRE

28.	Estates suppliers	4
29.	Frame-makers/glass shop	4
30.	Insurance agents	4
31.	Optical shop	3
32.	Travel agency	3
33.	Motor cycle shop/spare parts	3
34.	Dhoby	2
35.	Fruits store	2
36.	General agents	2
37.	Liquor shop	2
38.	Banks	2
39.	4 digit's agent	2
40.	Tinsmith	2
41.	Lawyer office	2
42.	Ice-cream factory	2
43.	Lorry transport office	2
44.	Coffee powder agent	2
45.	Butcher shop	2
46.	Furniture workshop	2
47.	Firewood/charcoal	2
48.	Soft drink agent	1
49.	Toy shop	1
50.	Pawn shop	1
51.	Chicken feeds	1
52.	Sewing machine agent	1
53.	Fortune teller	1
54.	Contractor office	1
55.	Bakery	1
56.	Record shop	1
57.	Bicycle/repair	1
58.	Feed mills	1
59.	Maternity home	1
60.	Joss-stick shop	1
61.	Pottery	1
62.	Printing shop	1
63.	Paint agent	1
64.	Biscuit agent	1
65.	Billard club	1
66.	Tutorial Institute	1
67.	Mee factory	1

Contd....

TABLE B 9: TOWN CENTRE

Type of shops	No.
68. Tyre/battery shop	1
69. Motor car repair workshop	1
70. Advertising shop/sign board	1
71. Coffin shop	1
72. Blacksmith	1
73. Typewriter repairs.	1
Total	383 shops

TABLE 10. HOUSEHOLD TYPE

Group	1-5	6-12	13+
Chinese	250	150	170
Malay	110	133	101
Indian	32	27	2
Others	7	7	2
Total	400	317	175

TABLE 11. HOUSEHOLD TYPE AND ETHNICITY

Ethnic Group	1-5	6-12	13+
Chinese	175	150	170
Malay	110	133	101
Indian	32	27	2
Others	7	7	2
Total	400	317	175

APPENDIX C

KOTA TINGGITABLE C1: POPULATION STRUCTURE

Ethnic Group	Age							Total
	0-6	7-14	15-19	20-24	25-39	40-65	65+	
Chinese	730	1,259	762	553	868	946	180	5,298
Malays	573	754	338	224	432	354	33	2,708
Indian	57	72	28	25	57	64	4	307
Others	-	-	-	-	-	-	-	-
Total	1,360	2,085	1,128	802	1,357	1,264	217	8,313

TABLE C2. HOUSEHOLD SIZE

Ethnic Group	Household Size			
	0-4	5-8	9-12	13+
Chinese	256	358	170	31
Malay	130	183	101	12
Indian	32	27	5	-
Others	-	-	-	-
Total	418	568	276	43

TABLE C3. NUMBER OF WORKERS PER HOUSEHOLD

Ethnic Group	Number of workers per household			
	1	2	3	4+
Chinese	373	210	109	93
Malay	300	78	30	7
Indian	41	9	7	2
Others	-	-	-	-
Total	714	297	146	102

TABLE C4 EMPLOYMENT PATTERN

Profession	No. of workers	%	% in relation to total population
Commercial trade	636	28.2	7.7
Estate Workers	269	11.9	3.2
Govt. Employees	263	11.8	3.2
General Labourers	250	11.1	3.0
Odd Jobs	166	7.4	2.0
Mining	115	5.1	1.4
Teachers	111	4.9	1.3
Factories	65	2.9	0.8
Others	378	16.8	4.5
T o t a l	2,253	100%	27.1

TABLE C5. FAMILY INCOME

Ethnic Group	Family income per month				
	None	\$1-\$150	\$151-\$300	\$301-\$500	\$500+
Chinese	17	186	332	161	115
Malay	4	171	162	47	46
Indian	1	26	22	4	5
Others	-	-	-	-	-
T o t a l	22	383	516	212	166

TABLE C6. SCHOOL ATTENDANCE

Ethnic Group	Pop. 7-12 yr.	School Att.	Per-cent	Pop. 13-18yr.	School Att.	Per-cent	Pop. 19-20yr.	School Att.	Per-cent.
Chinese	958	863	90.1	955	494	51.7	248	21	8.5
Malay	588	553	94.0	449	285	63.5	115	9	7.8
Indian	57	53	93.0	36	16	44.4	11	-	-
Others	-	-	-	-	-	-	-	-	-
Total	1,603	1,469	91.6	1,440	795	55.2	374	30	8.0

TABLE C7. LAND USE

U s e	A r e a
Residential	190.0
Commercial	8.0
Government Reserve	
Police Station	5.0
Forest Department	0.5
Hospital	14.0
NEB	4.5
JKR	4.3
Government Department	4.7
Old Folks Home	0.6
Fire Brigade	1.8
Army	1.8
Schools	35.0
Light Industries	8.3
Religious Buildings	3.0
Rubber	250.0
Domestic Areas	170.0
Cemetries	37.0
Swamp	128.0
Open Space	290.0
T o t a l	

TABLE C8 TOWN CENTRE

Use	No.	Outside Town Centre
1. Restaurant/coffee shop/eating stall	35	8
2. General Merchandise	21	-
3. Provision	17	10
4. Tailor	10	1
5. Barber	9	1
6. Chinese Medicine Shop	6	2
7. Sundry	6	7
8. Stationary/Book	5	-
9. Bicycle/Repair	4	-
10. Goldsmith	4	-
11. Offices	3	5
12. Watch/Watch Repair	3	-
13. Tinsmith	3	2
14. Stores	3	-
15. Agents	3	-
16. Fruit Stalls	3	-
17. Hardware Shop	2	-
18. Motor Repair Shop	2	1
19. Beauty Parlour	2	-
20. Rubber Dealers	2	2
21. Furniture	2	-
22. Radio/Television/Repairs	2	-
23. Private Clinic	2	2
24. Private Dentist	2	-
25. Electrical Shop	2	-
26. Dhoby Shop	2	1
27. Liquor Shop	2	-
28. Hotels	2	1
29. Photo Studio	1	-
30. Tyre/Battery Shop	1	2
31. Bank	1	-
32. Pawn Shop	1	-
33. Rice Wholesalers	1	-
34. Billard Pool	1	-
35. Timber Yard	1	1
36. Charcoal	1	-
37. Tailoring School	1	-
38. Bakery	-	1
39. Ice Cream Shop	-	1
	168	51

TABLE C8 (continued)

Use	No.	Outside Town Centre
<u>Factory</u>		
1. Soap Factory	4	1
2. Rubber Factory	-	1
3. Sawmill	-	1
4. Coffin Making Shop	-	1
		4

TABLE C9. DISTANCE/MODE OF TRAVEL OF SHOPPERS

Distance from centre in miles	No. of Persons	Mode of Travel										
		Walk		Cycle		M/Cycle		Bus		Car		Other
		No.	%	No.	%	No.	%	No.	%	No.	%	No.
0 - 1/4	30	18	60	11	37	-	-	-	-	-	3	-
1/4 - 1/2	5	3	60	2	40	-	-	-	-	-	-	-
1/2 - 1	36	12	33	22	61	2	6	-	-	-	-	-
1 - 2	70	19	27	37	53	4	6	7	10	1	1	2
2 - 3	5	-	-	3	60	-	-	2	40	-	-	-
3 - 4	40	1	3	7	18	1	3	27	68	3	8	-
4 - 5	15	-	-	3	20	-	-	6	40	6	40	-
5 - 6	11	-	-	2	18	-	-	3	27	6	55	-
6 - 7	1	-	-	-	-	-	-	1	100	-	-	-
7	57	-	-	-	-	3	5	25	44	16	28	13
Total	271	53	20	87	32	12	4	71	26	33	12	15

TABLE C 11. SOCIAL AND CULTURAL BUILDINGS

Mosque	2
Chinese Temple	2
Churches	2
Cinema	1
Association	2
Clubs	3
TOTAL	12

TABLE C 12. PROPERTY OWNERSHIP

ARTICLE	NO/HOUSEHOLD	RATIO
1. Company Vehicles	36 Nos.	
2. Cars	154 Nos.	1 : 54 persons
3. Motor Cycle	146 Nos.	1 : 57 persons
4. Bicycle	1,040 Nos.	1 : 8 persons
5. Radio	807 Nos.	1 : 10 persons
6. Television	519 Nos.	1 : 16 persons
7. Refrigerator	208 Nos.	1 : 40 persons
8. Sewing Machine	805 Nos.	1 : 10 persons
9. Electric Fan	273 Nos.	1 : 31 persons
10. Telephone	33 Nos.	1 : 40 families
11. Gas Cooker	200 household	1 : 7 household
12. Electric Stove	37 household	1 : 36 household
13. Kerosene Cooker	334 household	1 : 4 household
14. Firewood	914 household	1 : 1.4 household

APPENDIX D

KULAITABLE D 1: POPULATION STRUCTURE

Ethnic Group	PERCENTAGE OF POP.							Total
	0-6	7-14	15-19	20-24	25-39	40-65	65+	
Chinese	17.4	23.7	12.1	9.3	18.0	15.2	4.3	100%
Malay	24.0	25.1	11.7	9.9	19.5	9.1	0.7	100%
Indian	23.3	22.5	12.3	8.4	17.4	14.7	1.4	100%
Others	(2.61)	(2.89)	(2.42)	(1.88)	(1.21)	(5.8)	(0.38)	
Total	18.3	23.8	12.1	9.4	18.1	14.6	3.8	100%

TABLE D 2: HOUSEHOLD SIZE (%)

Ethnic Group	0-4	5-8	9-12	13+
Chinese	31.1	42.4	21.7	4.8
Malay	44.3	35.3	17.4	3.0
Indian	39.2	50.0	10.8	-
Others				
Total	33	41.9	20.7	4.4

TABLE D 3: NO OF WORKERS PER HOUSEHOLD (%)

Ethnic Group	1	2	3	4 +
Chinese	41.2	28.9	15.7	14.3
Malay	66.8	23.9	7.5	1.8
Indian	64.6	27.1	5.2	3.1
Others				
Total	45.3	28.2	14.2	12.3

TABLE D 4: FAMILY INCOME (%)

	None	\$1-150	\$151-300	\$301-500	\$501+
Chinese	3.6	20.0	42.3	23.4	10.6
Malay	3.8	36.6	38.3	14.9	6.4
Indian	5.9	45.1	29.4	15.7	3.9
Others	-	-	-	-	-
Total	3.8	23.1	41.3	22.0	9.8

TABLE D 5: EMPLOYMENT PATTERN

Profession	No.	%	% in relation to total pop.
1. Rubber & Oil Palm Ests.	1,233	30.9	9.6
2. Commercial trade	930	23.3	7.3
3. Factory Workers	259	6.5	2.0
4. Odd Jobs	196	4.9	1.5
5. Government Employee	163	4.1	1.3
6. Teachers	145	3.6	1.1
7. Vegetable Gardeners	96	2.4	0.8
8. Others	970	24.3	7.5
	3,992	100%	31.1

TABLE D 6: SCHOOL ATTENDANCE

	Popula- tion 7 - 12	School Attend %	Popula- tion 13 - 18	School Attend %	Popula- tion 19 - 20	School Attend %	%
Chinese	2,030	1,762 86.8	1,678	869 51.8	436	48	11.0
Malay	261	237 90.8	186	113 60.8	48	2	4.2
Indian	92	82 89.1	88	40 45.5	17	4	23.5
Others	-	-	-	-	-	-	-
Total	2,383	2,081 87.3	1,952	1,022 52.4	501	54	10.8

TABLE D 7: TOWN CENTRE

Type of shops	No. in the Town Board	No. under district office
1. Restaurant/coffee shop/eating stall	44	5
2. Provision shop	41	12
3. Tailor shop	19	1
4. Barber shop	12	2
5. Hardware shop	12	2
6. Motor repair shop	11	6
7. General merchandise	11	2
8. Medicine shop	10	-
9. Sundry shop	9	1
10. Beauty parlour	8	-
11. Rubber dealer	7	-
12. Textile shop	6	1
13. Furniture shop	6	5
14. General offices	6	3
15. Biscuit shops	5	-
16. Bicycle/repair shop	4	1
17. Stationary	4	-
18. Radio/television/repair	4	-
19. Photo studio	4	-
20. Private clinic	4	-
21. Private dentist	4	-
22. Electrical shop	4	-
23. Estate supplier	4	1
24. Stores	4	-
25. Watch/repair shop	3	-
26. Goldsmith shop	3	-
27. Dhoby shop	3	1
28. Tyre shop	3	2
29. Sewing machine shop	2	-
30. Shoe shop	2	1
31. Fruit shop	2	-
32. Liquor shop	2	2
33. Motor spare-part shop	1	-
34. Charcoal shop	1	-
35. Bakery	1	-
36. Massage parlour	1	-
37. Ice shop	1	-
38. Cement shop	1	-
39. Glass shop	1	-

Contd.

TABLE D 7: TOWN CENTRE

Type of shops	No. in the town board	No. under district office
40. Engraving/sign shop	1	-
41. Bank	1	1
42. Hotel	1	1
43. Optical shop	1	-
44. Pawn shop	1	-
45. 4 Digit shop	1	-
46. Ice-cream	1	2
47. Carpenter shop	-	2
48. Coffinshop	-	2
49. Tinsmith	-	2
50. Aquarium	-	1
51. Pork shop	-	-
	<u>278</u>	<u>59</u>

<u>Industry</u>	<u>No. under district office</u>
1. Bag factory	1
2. Concrete works	1
3. Biscuits factory	1
4. Engineering workshop	2
5. Wood - workshop	1
6. Sauce factory	1
7. Rubber sheeting factory	1
	<u>8</u>

TABLE D 8: PROPERTIES

		Ratio
1. Company vehicles	54 Nos.	
2. Cars	239 Nos.	1 : 54 persons
3. Motor cycle	231 Nos.	1 : 56 persons
4. Bicycle	1,412 Nos.	1 : 9 persons
5. Radio/gram/transistors	994 Nos.	1 : 13 persons
6. Television	392 Nos.	1 : 33 persons
7. Refrigerator	210 Nos.	1 : 61 persons
8. Sewing machine	1,195 Nos.	1 : 11 persons
9. Electric fan	434 Nos.	1 : 30 persons
10. Telephone	44 Nos.	1 : 292 persons
11. Gas cooker	235 household	1 : 9 household
12. Electric stove	25 household	1 : 85 household
13. Kerosene cooker	484 household	1 : 4 household
14. Firewood	1,381 household	1 : 1.5 household

APPENDIX E

R E N G A MTABLE E1: POPULATION STRUCTURE (%)

Ethnic Group	Percentage of population							Total
	0-6	7-14	15-19	20-24	25-39	40-65	65+	
Chinese	16.8	21.7	11.4	10.3	19.0	15.2	5.7	100
Malay	24.2	29.5	10.7	7.3	18.1	9.5	0.7	100
Indian	20.2	28.4	13.3	7.1	14.0	15.7	1.3	100
Others	-	-	-	-	-	-	-	-
Total	18.9	24.5	11.6	9.1	17.9	14.1	3.8	100

TABLE E2: HOUSEHOLD SIZE (%)

Ethnic Group	0-4	5-8	9-12	13+
Chinese	31.7	40.1	21.0	7.3
Malay	32.6	41.3	22.8	3.3
Indian	36.0	43.8	16.9	3.4
Others	-	-	-	-
Total	32.7	41.1	20.5	5.6

TABLE E3: NUMBER OF WORKERS PER HOUSEHOLD (%)

Ethnic Group	1	2	3	4+
Chinese	38.1	29.6	14.4	17.9
Malay	71.8	21.2	5.9	1.2
Indian	61.1	30.0	7.8	1.1
Others	-	-	-	-
Total	49.5	28.0	11.3	11.1

TABLE E4: FAMILY INCOME (%)

	None	\$1-150	\$151-300	\$301-500	\$501+
Chinese	1.5	26.6	44.1	19.4	8.4
Malay	1.1	57.1	34.1	1.1	6.6
Indian	4.4	53.8	29.7	6.6	5.5
Others	-	-	-	-	-
Total	2.0	38.5	39.1	13.0	7.4

TABLE E5: EMPLOYMENT PATTERN

Profession	No.	percent	percent in relation to total population
1. Estate worker	407	47.0	14.2
2. Commercial trade	169	19.5	5.9
3. Government employee	58	6.7	2.0
4. Odd job	41	4.7	1.4
5. Factory workers	34	3.9	1.2
6. Teachers	32	3.7	1.1
7. Others	125	14.4	4.4
Total	866	100%	30.2%

TABLE E6: SCHOOL ATTENDANCE

	Pop. 7-12 yr.	School Att.	Per-cent	Pop. 13-18yr.	School Att.	Per-cent	Pop. 19-20yr.	School Att.	Per-cent
Chinese	259	236	91.1	187	95	50.8	62	7	11.3
Malay	136	124	91.2	86	54	62.8	15	1	6.7
Indian	113	96	85.0	97	47	48.5	29	-	-
Others	-	-	-	-	-	-	-	-	-
Total	508	456	89.8	370	196	53.0	106	8	7.5

TABLE E7: VILLAGE CENTRE

Type of shops	No.
1. Coffee shops/cating shops, stalls	24
2. Provision shops	22
3. Barber/hairdressing	7
4. Bicycle/repair shop	3
5. Medical shop	3
6. Hardware shop	2
7. Tailoring shop	2
8. Goldsmith shop	2
9. Furniture shop	2
10. Billard (pool) room	2
11. Tinsmith shop	2
12. General merchandise	1
13. Motor cycle repair shop	1
14. Electrical shop	1
15. Watch shop	1
16. Radio/service shop	1
17. Rubber dealer	1
18. Bus office/workshop	1
19. Pawnshop	1
20. Blacksmith	1
21. Ice shop	1
22. Transport office	1
23. Dhoby shop	1
24. Sewing machine shop	1

TABLE E8: PROPERTIES

		Ratio
1. Company Vehicle	5 Nos.	
2. Cars	33 Nos.	1 : 87 persons
3. Motor cycle	67 Nos.	1 : 43 persons
4. Bicycle	345 Nos.	1 : 8 persons
5. Radio	264 Nos.	1 : 11 persons
6. Television	87 Nos.	1 : 33 persons
7. Refrigerator	50 Nos.	1 : 54 persons
8. Sewing machine	288 Nos.	1 : 10 persons
9. Electric fan	61 Nos.	1 : 47 persons
10. Telephone	7 Nos.	1 : 66 persons
11. Gas cooker	46 household	1 : 9 household
12. Electric stove	11 household	1 : 37 household
13. Kerosene cooker	54 household	1 : 8 household
14. Firewood	361 household	1 : 1 household

APPENDIX F
LAYANG-LAYANG

TABLE F1: POPULATION STRUCTURE (%)

Ethnic Group	Percentage of population							Total
	0-6	7-14	15-19	20-24	25-39	40-65	65+	
Chinese	18.0	20.7	10.2	11.1	17.0	16.5	6.5	100
Malay	19.0	30.7	13.2	6.6	15.7	13.6	1.2	100
Indian	19.4	12.2	12.2	18.4	15.3	21.4	1.0	100
Others	(2.6)	(2.76)	(2.16)	(2.14)	(1.12)	(0.64)	0.55	
Total	18.2	22.1	10.8	10.7	16.8	16.0	5.5	100

TABLE F2: HOUSEHOLD SIZE (%)

Ethnic Group	0-4	5-8	9-12	13+
Chinese	39.9	36.7	17.5	5.8
Malay	31.0	56.3	12.7	-
Indian	69.2	23.1	7.7	-
Others				
T o t a l	40.2	39.1	16.1	4.6

TABLE F3: NUMBER OF WORKERS PER HOUSEHOLD (%)

Ethnic Group	1	2	3	4+
Chinese	59.7	24.7	8.5	7.1
Malay	74.2	20.2	3.4	2.3
Indian	80.0	12.0	8.0	-
Others				
T o t a l	63.0	23.4	7.6	6.0

TABLE F 4: FAMILY INCOME (%)

	None	\$1-150	\$151-300	\$301-500	\$501+
Chinese	0.3	25.4	45.8	19.7	8.8
Malay	1.5	30.9	60.3	5.9	1.5
Indian	-	68.2	22.7	9.1	-
Others	-	-	-	-	-
Total	0.5	28.8	47.0	16.6	7.0

TABLE F 5: EMPLOYMENT PATTERN

Profession	No.	%	% in rel. to total pop.
Estate Workers	434	48.1	16.4
Commercial	210	23.3	7.9
Odd Jobs	98	10.9	3.7
Vegetables Gardeners	27	3.0	1.0
Teachers	20	2.2	0.8
Government Employee	16	1.8	0.6
Factory Workers	12	1.3	0.5
Others	86	9.5	3.3
	903	100%	34.2

TABLE F 6: SCHOOL ATTENDENCE

	Popula- tion 7 - 12	School Attend	%	Popula- tion 13- 18	School Attend	%	Popula- tion 19 - 20	School Attend	%
Chinese	291	251	86.3	204	77	37.7	77	3	3.9
Malay	107	82	76.6	66	23	34.8	18	-	-
Indian	6	3	50.0	9	3	33.3	2	-	-
Others	-	-	-	-	-	-	-	-	-
Total	404	336	83.2	279	103	36.9	97	3	3.1

TABLE F 7: VILLAGE CENTRE

Trade	No. of shop
1. Provision shop	14
2. Restaurant/coffee/eating shop	11
3. General merchandise	10
4. Barber/hairdressing saloon	10
5. Tailoring shop	9
6. Motor repair shop	6
7. Dental clinic	2
8. Photo studio	2
9. Bicycle/bicycle repair shop	2
10. Hardware shop	2
11. Watch shop	2
12. Rubber dealer	2
13. Medical store	1
14. Bakery	1
15. Book shop	1
16. Radio service shop	1
17. Goldsmith shop	1
18. Store	1
19. Furniture shop	1
20. Record shop	1
21. Petrol pump station	1

TABLE F 8: PROPERTIES

		Ratio
1. Cars	39 Nos.	1 : 68 persons
2. Motor-cycle	108 Nos.	1 : 24 persons
3. Bicycle	584 Nos.	1 : 5 persons
4. Radio	178 Nos.	1 : 15 persons
5. Television	45 Nos.	1 : 59 persons
6. Refrigerator	25 Nos.	1 : 106 persons
7. Electric fan	52 Nos.	1 : 51 persons
8. Gas cooker	27 household	1 : 18 household
9. Electric cooker	1 household	
10. Kerosene cooker	35 household	1 : 14 household
11. Firewood	373 household	1 : 1.3 household

APPENDIX G

SCUDAITABLE G 1: POPULATION STRUCTURE (%)

Ethnic Group	PERCENTAGE OF POP.							Total
	0-6	7-14	15-19	20-24	25-39	40-65	65+	
Chinese	15.7	23.0	13.2	11.6	16.7	16.2	3.6	100
Malay	24.6	27.0	10.8	8.0	15.9	13.1	0.7	100
Indian	18.8	26.7	12.4	10.4	14.9	16.8	-	100
Others	-	-	-	-	-	-	-	-
Total	18.1	24.2	12.5	10.7	16.4	15.5	2.6	100

TABLE G 2: HOUSEHOLD SIZE (%)

Ethnic Group	0-4	5-8	9-12	13+
Chinese	22.6	40.7	26.5	10.2
Malay	32.6	45.7	20.7	1.1
Indian	35.5	29.0	29.0	6.5
Others	-	-	-	-
Total	26.4	41.0	25.2	7.4

TABLE G 3: NO OF WORKERS PER HOUSEHOLD (%)

Ethnic Group	1	2	3	4+
Chinese	32.9	29.7	26.9	20.5
Malay	65.2	23.6	4.5	6.7
Indian	63.3	20.0	6.5	10.0
Others	-	-	-	-
Total	44.1	27.2	12.7	16.0

TABLE G 4: FAMILY INCOME (%)

	None	\$1-150	\$151-300	\$301-500	\$501+
Chinese	3.1	20.8	45.1	19.5	11.5
Malay	3.3	53.3	33.7	7.6	2.2
Indian	3.2	32.3	48.4	12.9	3.2
Others	-	-	-	-	-
Total	3.2	30.4	42.4	15.6	8.3

TABLE G 5: EMPLOYMENT PATTERN

Profession	No.	%	% in relation to total pop.
1. Commercial trade	207	24.7	7.3
2. Estate workers	147	17.6	5.2
3. Factory workers	126	15.1	4.4
4. Government employee	57	6.8	2.0
5. Odd job	40	4.8	1.4
6. Teachers	12	1.4	0.4
7. Others	248	29.6	8.7

TABLE G 6: SCHOOL ATTENDENCE

	Popula- tion 7 - 12	School Attend	%	Popula- tion 13 - 18	School Attend	%	Popula- tion 19 - 20	School Attend	%
Chinese	304	272	89.5	268	138	51.5	85	9	10.6
Malay	120	104	86.7	83	42	50.6	25	-	-
Indian	37	26	70.3	39	14	35.9	8	-	-
Others	-	-	-	-	-	-	-	-	-
Total	461	402	87.2	390	194	49.7	118	9	7.6

TABLE G7: VILLAGE CENTRE

	<u>No.</u>
1. Provision Shop	16
2. Coffee/Eating Shop	8
3. Tailor	3
4. Barber	3
5. Electrical Shop	2
6. Furniture	2
7. Dentist	2
8. Medicine	2
9. Finance Shop	1
10. Textile Shop	1
11. Motor Repair Workshop	1
12. Tinsmith	1
13. Photo Studio	1
14. Rubber Dealer	1
15. Beauty Saloon	1
16. Clobber	1
17. Bakery	1
18. Dhoby	1
19. Manufacturing Joss-stick/ paper	1
	<hr/>
T o t a l	49
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TABLE G8: PROPERTIES

		Ratio
1. Company Vehicles	10 Nos.	
2. Cars	45 Nos.	1 : 63 persons
3. Motor Cycle	33 Nos.	1 : 85 persons
4. Bicycle	219 Nos.	1 : 13 persons
5. Radio	237 Nos	1 : 12 persons
6. Television	110 Nos.	1 : 26 persons
7. Refrigerator	30 Nos.	1 : 95 persons
8. Sewing Machine	258 Nos.	1 : 11 persons
9. Electric Fan	71 Nos.	1 : 40 persons
10. Telephone	10 Nos.	1 : 44 families
11. Gas Cooker	50 household	1 : 8 household
12. Electric Cooker	6 household	1 : 70 household
13. Kerosene	137 household	1 : 3 household
14. Firewood	251 household	1 : 1.6 household

APPENDIX H

MASAI

TABLE H 1: POPULATION STRUCTURE (%)

Ethnic Group	PERCENTAGE OF POP.						Total	
	0-6	7-14	15-19	20-24	25-39	40-65		65+
Chinese	15.9	24.4	13.6	11.8	15.7	16.1	2.4	100
Malay	28.4	22.5	6.5	7.1	21.3	11.2	3.0	100
Indian	17.1	29.7	15.2	6.3	12.7	17.7	1.3	100
Others								
Total	18.0	25.0	12.7	10.2	16.2	15.6	2.3	100

TABLE H 2: HOUSEHOLD SIZE (%)

Ethnic Group	0-4	5-8	9-12	13+
Chinese	33.9	35.7	24.1	6.3
Malay	50.0	19.2	26.9	3.8
Indian	36.7	43.3	20.0	-
Others				
Total	36.9	34.5	23.8	4.8

TABLE H 3: NO OF WORKERS PER HOUSEHOLD (%)

Ethnic Group	1	2	3	4
Chinese	53.2	22.5	12.6	11.7
Malay	53.8	34.6	7.7	3.8
Indian	60.7	32.1	3.6	3.6
Others				
Total	54.5	26.0	10.3	9.1

TABLE H 4: FAMILY INCOME

	None	\$1-150	\$151-300	\$301-500	\$501+
Chinese	0.9	23.7	43.9	20.2	11.4
Malay	3.7	51.9	33.3	11.1	-
Indian	3.4	51.7	37.9	6.9	-
Others					
Total	1.7	32.9	41.2	16.5	7.6

TABLE H 5: EMPLOYMENT PATTERN

Profession	No.	%
1. Commercial	158	54.7
2. Estate workers	67	23.2
3. Odd jobs	21	7.2
4. Government Servant	11	3.8
5. Teachers	8	2.8
6. Others	24	8.3
	289	100%

TABLE H 6: SCHOOL ATTENDENCE

	Popula- tion 7 - 12	School Attend	%	Popula- tion 13 - 18	School Attend	%	Popula- tion 19 - 20	School Attend	%
Chinese	139	130	93.5	117	59	50.4	34	3	8.8
Malay	32	26	81.3	21	6	28.6	1	-	-
Indian	29	20	69.0	32	7	21.9	7	1	14.3
Others	-	-	-	-	-	-	-	-	-
Total	200	176	88.0	170	72	42.4	42	4	9.5

TABLE H 7: TOWN CENTRE

Type of shops	No. in the town board	No. under district office
1. Provision shop	-	16
2. Restaurant/coffee shop	-	11
3. Tailor	-	9
4. General Merchandise	-	6
5. Dhoby	-	4
6. Barber	-	4
7. Goldsmith	-	3
8. Textile/general goods	-	3
9. Furniture shop	-	3
10. Hairdressing saloon	-	3
11. Motor cycle/tyre shop	-	3
12. Motor repair shop	-	2
13. Tinsmith	-	2
14. Bicycle/repair shop	-	2
15. Photo studio	-	2
16. Electric shop	-	2
17. Hardware shop	-	2
18. Sewing machine/general goods	-	1
19. Building materials	-	1
20. Clinic	-	1
21. Rubber dealer	-	1
22. Chinese medicine shop	-	1
23. Radio/Television shop	-	1
24. Second-hand car agent	-	1
25. Book/stationary goods	-	1
26. Confectionary/fruits shop	-	1
27. Ice shop	-	1
28. Dental clinic	-	1
29. Blacksmith	-	1
30. Engineering workshop	-	1

TABLE H 8: PROPERTIES

		Ratio
1.	Company vehicles	4 Nos.
2.	Cars	40 Nos. 1 : 27 persons
3.	Motor cycle	29 Nos. 1 : 37 persons
4.	Bicycle	75 Nos. 1 : 14 persons
5.	Radio	104 Nos. 1 : 10 persons
6.	Television	75 Nos. 1 : 14 persons
7.	Refrigerator	26 Nos. 1 : 41 persons
8.	Sewing machine	107 Nos. 1 : 10 persons
9.	Electric fan	63 Nos. 1 : 17 persons
10.	Telephone	2 Nos. 1 : 89 families
11.	Gas cooker	52 household 1 : 3.4 household
12.	Electric cooker	11 household 1 : 16 household
13.	Kerosene cooker	58 household 1 : 3 household
14.	Firewood	57 household 1 : 3 household

APPENDIX I
SEDILI BESAR

TABLE I 1: POPULATION STRUCTURE (%)

Ethnic Group	PERCENTAGE OF POP.							Total
	0-6	7-14	15-19	20-24	25-39	40-65	65+	
Chinese	14.8	26.9	10.5	7.0	18.3	18.7	3.9	100
Malay	23.8	24.8	11.0	8.5	15.9	14.0	2.0	100
Indian	-	-	-	38.5	61.5	-	-	100
Others	(3.17)	(3.11)	(2.18)	(1.7)	(1.11)	(0.58)	(0.22)	
Total	22.2	24.9	10.9	8.5	16.7	14.6	2.2	100

TABLE I 2: HOUSEHOLD SIZE (%)

Ethnic Group	0-4	5-8	9-12	13+
Chinese	29.5	52.3	18.2	-
Malay	35.8	48.8	15.0	0.4
Indian	33.3	16.7	16.7	33.3
Others				
Total	34.8	48.6	15.5	1.0

TABLE I 3: NO OF WORKERS PER HOUSEHOLD (%)

Ethnic Group	1	2	3	4+
Chinese	64.4	20.0	11.1	4.4
Malay	79.8	15.6	2.5	2.1
Indian	33.3	33.3	16.7	16.7
Others				
Total	76.5	16.6	4.2	2.8

TABLE I 4: FAMILY INCOME(%)

	None	\$1-150	\$151-300	\$301-500	\$501+
Chinese	0.83	82.91	12.5	2.5	1.25
Malay	-	75.00	20.83	2.08	2.08
Indian	-	16.66	83.33	-	-
Others	-	-	-	-	-
Total	0.68	80.27	15.3	2.38	1.36

TABLE I 5: EMPLOYMENT PATTERN

Profession	No.	%	% in relation to total pop.
1. Fisherman	250	64.9	15.1
2. Commercial trade	60	15.6	3.6
3. Government servant	13	3.4	0.8
4. Teachers	9	2.3	0.5
5. Odd jobs	18	4.7	1.1
6. Others	35	9.1	2.1

TABLE I 6: SCHOOL ATTENDENCE

	Popula- tion 7 - 12	School Attend	%	Popula- tion 13 - 18	School Attend	%	Popula- tion 19 - 20	School Attend	%
Chinese	59	55	93.2	41	14	34.1	10	-	-
Malay	270	243	90.0	185	69	37.3	50	-	-
Indian	1	1	100.0	1	-	-	1	-	-
Others	-	-	-	-	-	-	-	-	-
Total	330	299	90.6	227	83	36.6	61	-	-

TABLE I 7: VILLAGE CENTRE

Type of shops	No.
1. Coffee/eating shops	10
2. Sundry shop	6
3. Barber	2
4. Bakery	1
5. Dhoby	1
6. Tailor	1
7. Fishing office	1
8. Billard pool	1

TABLE I 8: PROPERTIES

		Ratio
1. Cars	4	1 : 414 persons
2. Bicycle	49	1 : 34 persons
3. Radio	129	1 : 13 persons
4. Television	35	1 : 50 persons
5. Refrigerator	15	1 : 110 persons
6. Sewing machine	117	1 : 14 persons
7. Electric fan	19	1 : 87 persons
8. Kerosene stove	88	1 : 3.4 household
9. Firewood	208	1 : 1.4 household

APPENDIX J

KUKUPTABLE J1 : POPULATION STRUCTURE (%)

Ethnic Group	PERCENTAGE OF POP.							Total
	0-6	7-14	15-19	20-24	25-39	40-65	65+	
Chinese	13.8	27.8	15.2	7.7	15.2	16.7	3.8	100
Malay	37.9	19.8	7.1	12.6	11.5	9.9	1.1	100
Indian	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-
Total	18.7	26.2	13.5	8.7	14.4	15.3	3.2	100

TABLE J2 : HOUSEHOLD SIZE (%)

Ethnic Group	0-4	5-8	9-12	13+
Chinese	14.4	34.4	38.9	12.2
Malay	31.8	54.5	9.1	4.5
Indian	-	-	-	-
Others	-	-	-	-
Total	17.9	38.4	33.0	10.7

TABLE J3 : NO OF WORKERS PER HOUSEHOLD (%)

Ethnic Group	1	2	3	4+
Chinese	51.1	14.4	2.0	14.4
Malay	76.2	9.5	14.3	-
Indian	-	-	-	-
Others	-	-	-	-
Total	55.9	13.5	18.9	11.7

TABLE J 4: FAMILY INCOME

	None	\$1-150	\$151-300	\$301-500	\$501+
Chinese	-	45.6	40.0	10.0	4.4
Malay	4.5	63.6	27.3	4.5	-
Indian	-	-	-	-	-
Others	-	-	-	-	-
Total	0.9	49.1	37.5	8.9	3.6

TABLE J 5: EMPLOYMENT PATTERN

Profession	No.	%	% in relation to total pop.
1. Fishermen	158	79.0	17.5
2. Commercial trade	19	9.5	2.1
3. Odd job	7	3.5	0.8
4. Government employee	6	3.0	0.7
5. Others	10	5.0	1.1
Total	200	100%	22.2%

TABLE J 6: SCHOOL ATTENDENCE

	Popula- tion 7 - 12	School Attend	%	Popula- tion 13 - 18	School Attend	%	Popula- tion 19 - 20	School Attend	%
Chinese	161	129	80.1	135	32	23.7	33	-	-
Malay	28	19	67.9	15	1	6.7	5	-	-
Indian	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-
Total	189	148	78.3	150	33	22.0	38	-	-

TABLE J7 : VILLAGE CENTRE

Type of Shops	No.
1. Sundry shop	7
2. Coffee/soft drinks shop	2
3. Restaurant/eating shop	2
4. Fish wholesaler	1
5. Manufacturing prawn crackers	1

TABLE J8 : PROPERTIES

		Ratio
1. Company vehicles	9 Nos.	1 : 450 persons
2. Cars	2 Nos.	1 : 450 persons
3. Motor cycles	1 No.	-
4. Bicycles	14 Nos.	1 : 64 persons
5. Radio	48 Nos.	1 : 19 persons
6. Television	- Nos.	-
7. Refrigerator	3 Nos.	1 : 300 persons
8. Sewing machine	43 Nos.	-
9. Electric fans	1 No.	1 : 21 persons
10. Telephone	- Nos.	-
11. Gas cookers	5 household	1 : 22 persons
12. Electric cookers	-	-
13. Kerosene	14 household	1 : 8 household
14. Firewood	95 household	1 : 1.2 household

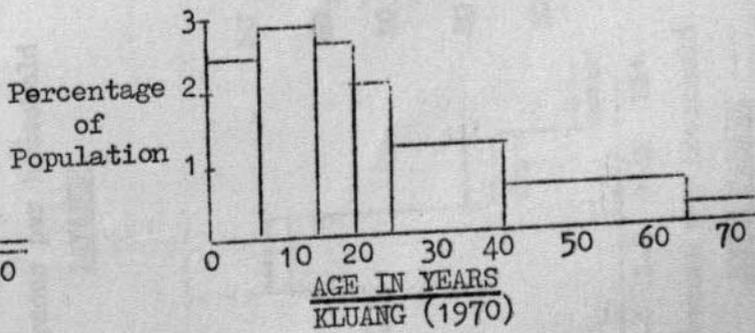
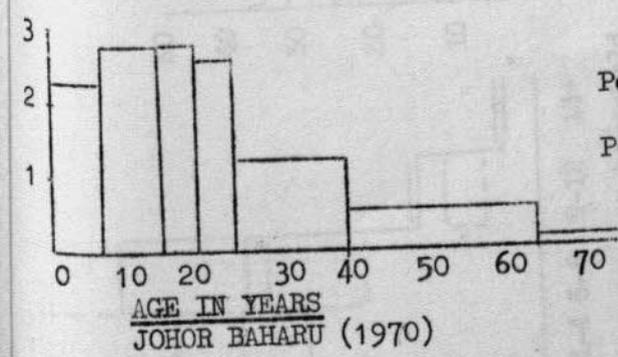
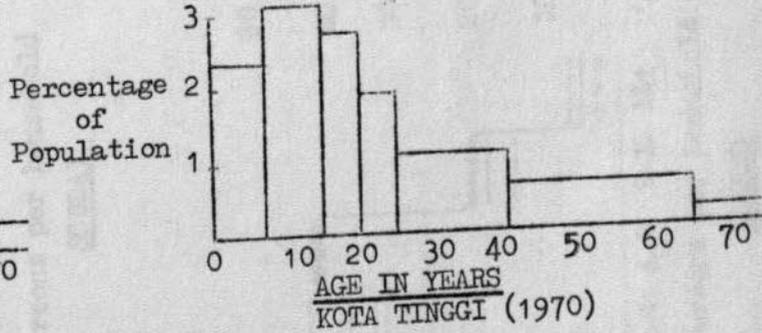
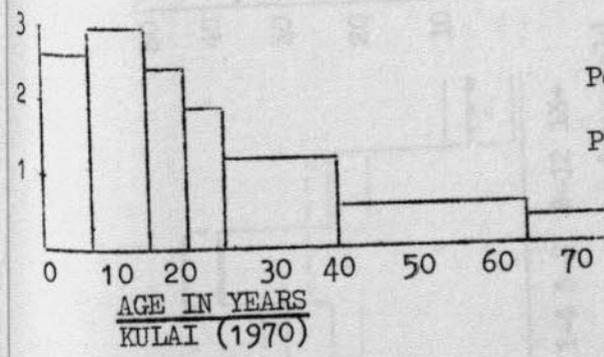
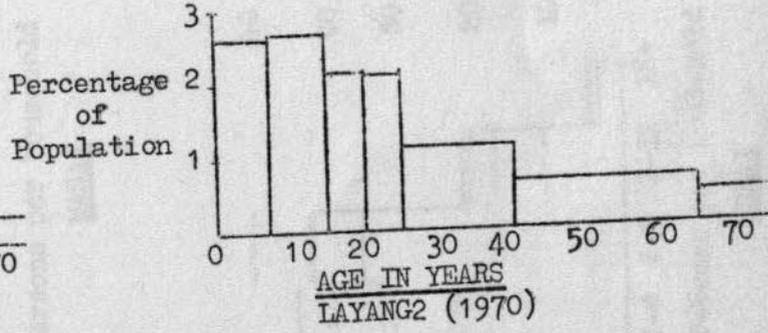
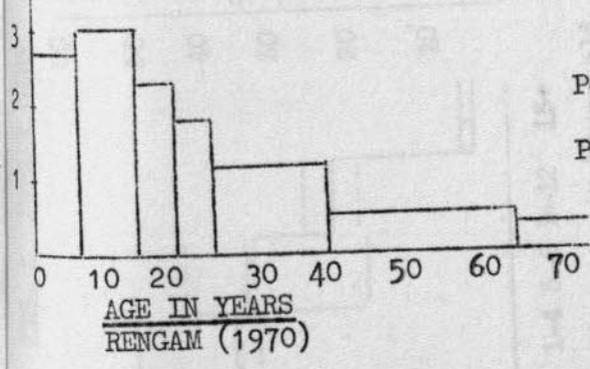
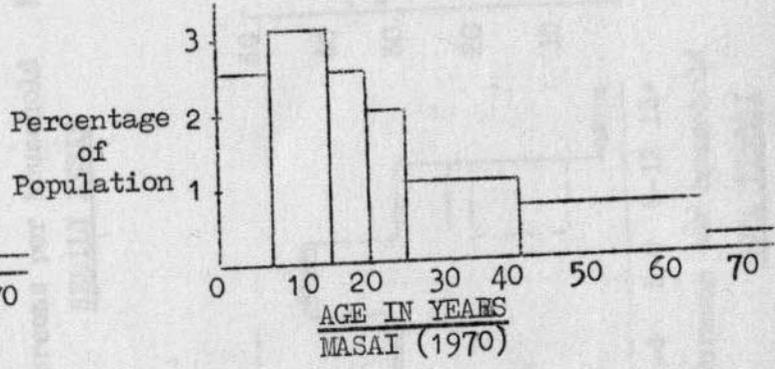
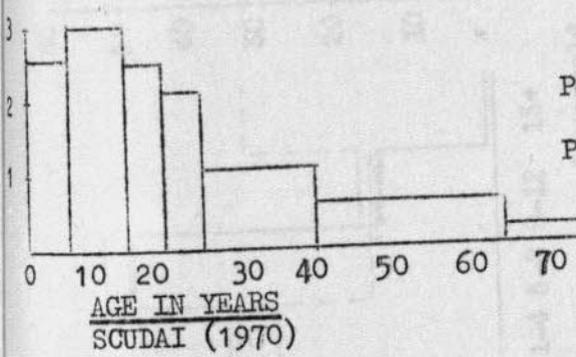
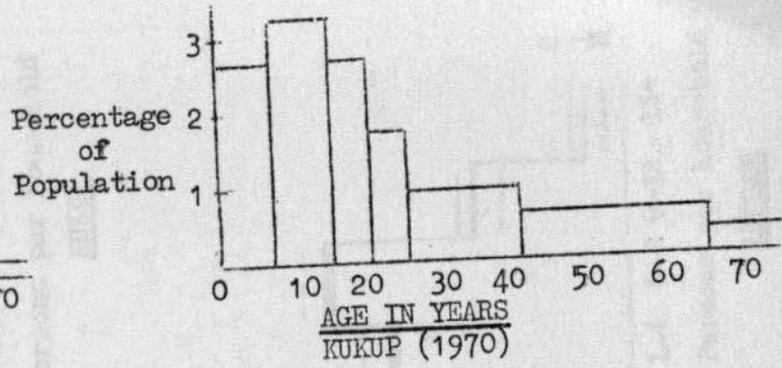
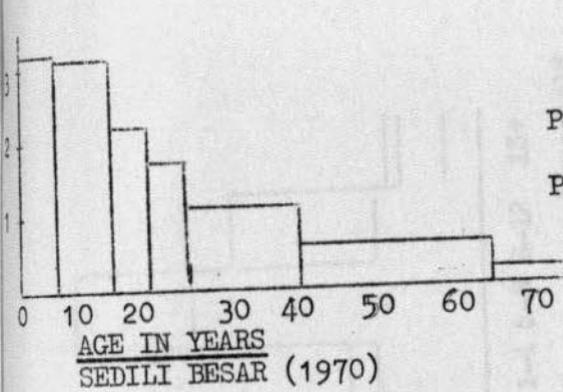


FIG. 1. POPULATION STRUCTURE

FIG. 2 FAMILY SIZE

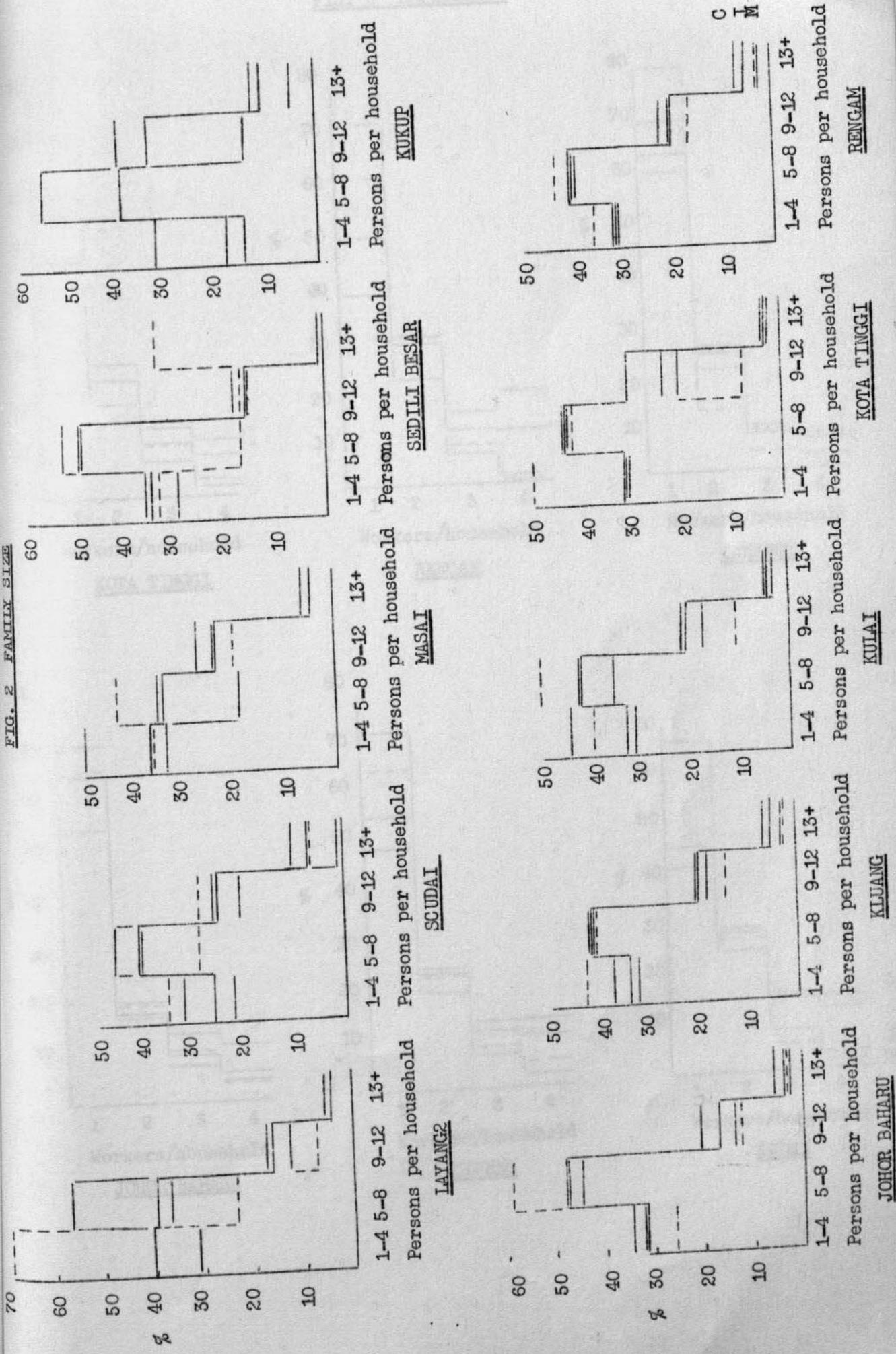
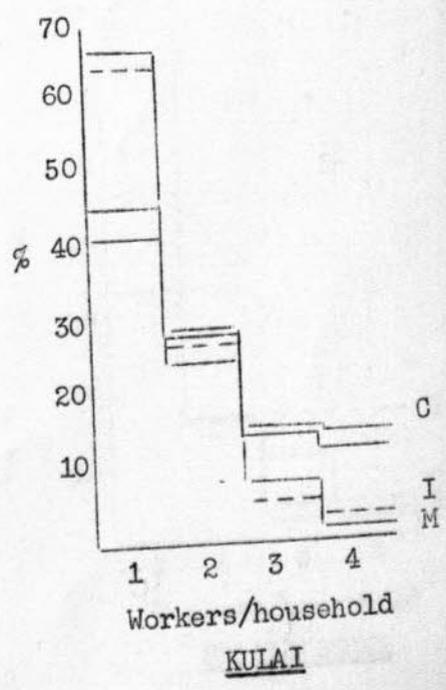
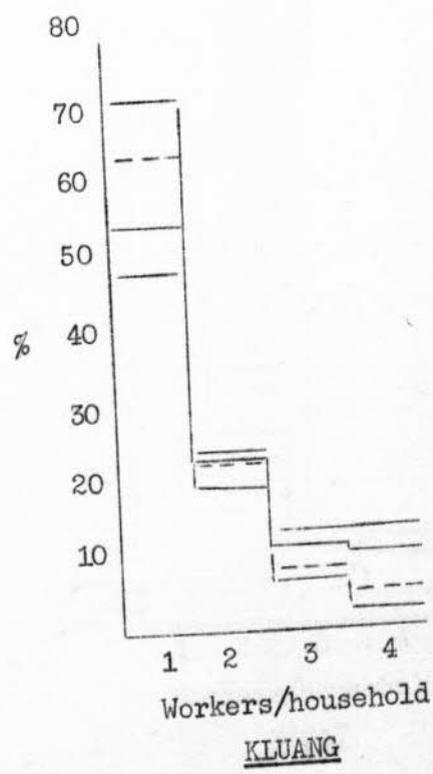
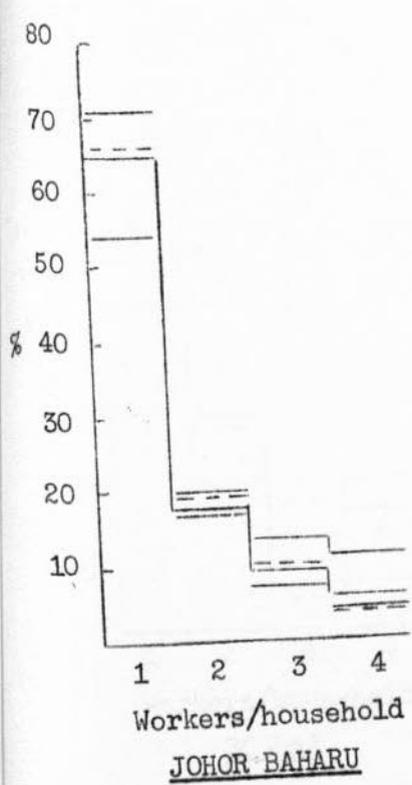
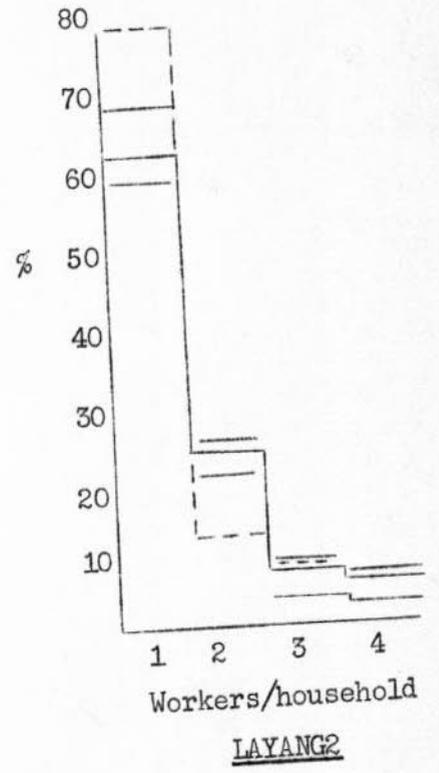
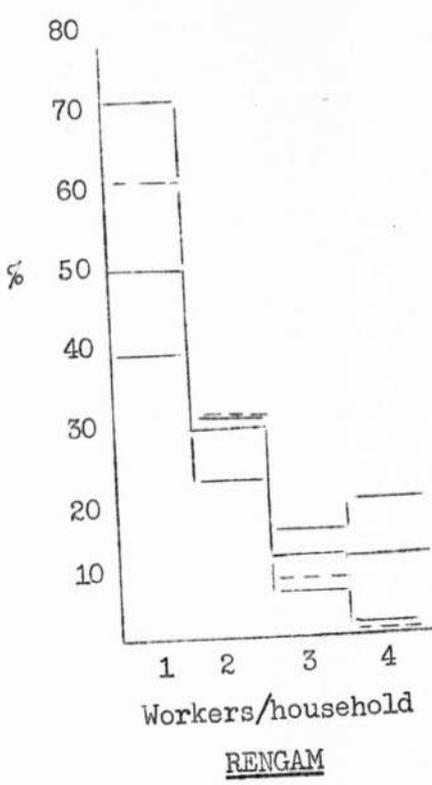
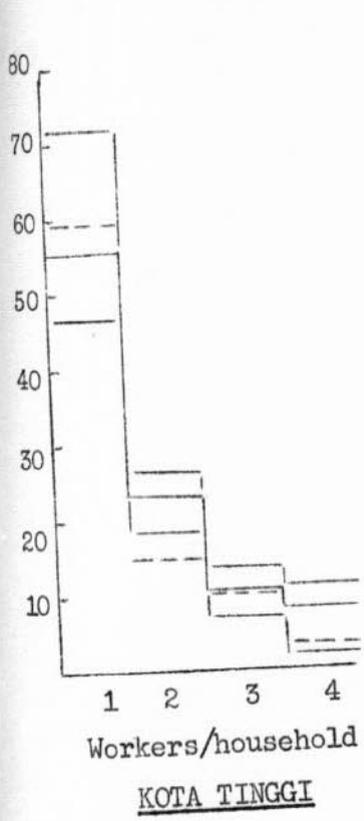
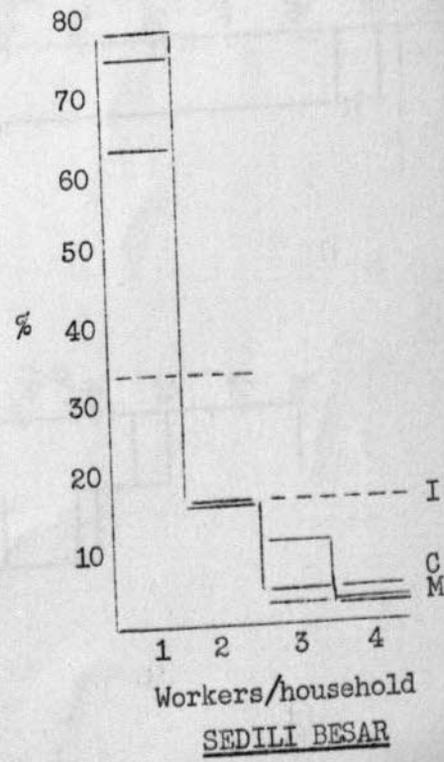
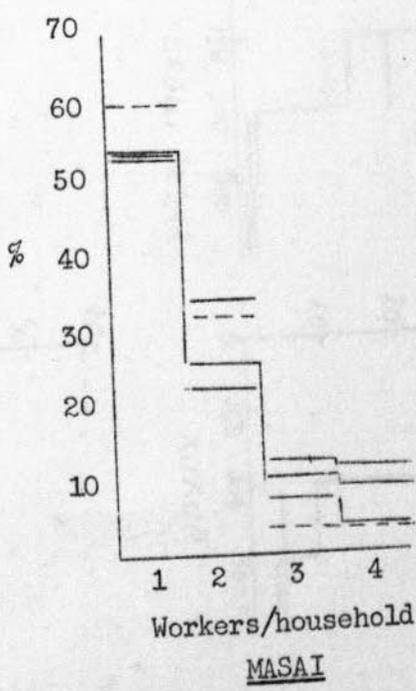
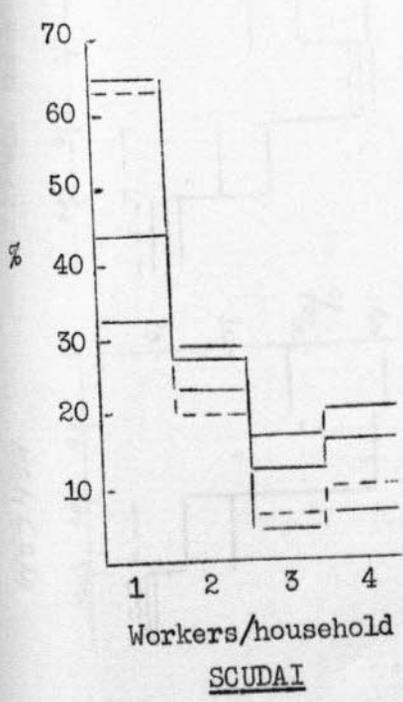
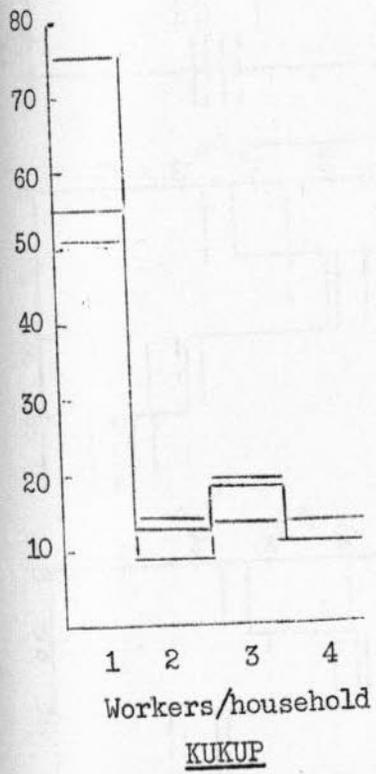


FIG. 3 EMPLOYMENT



EMPLOYMENT



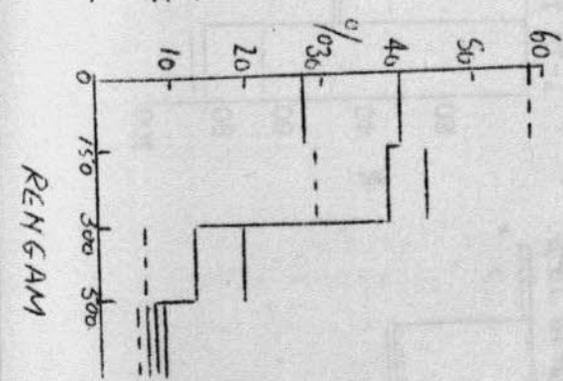
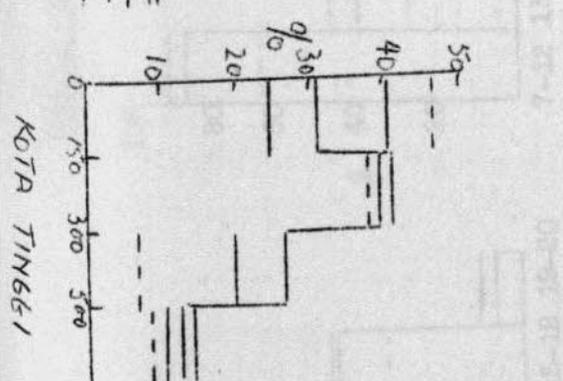
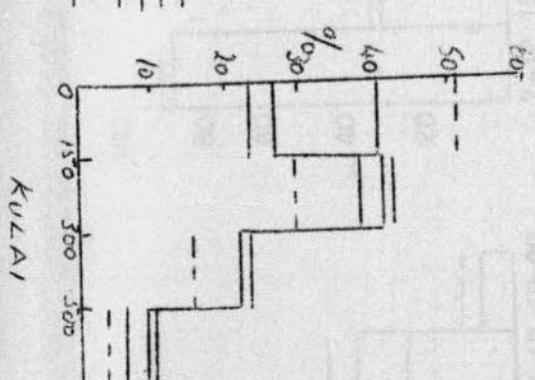
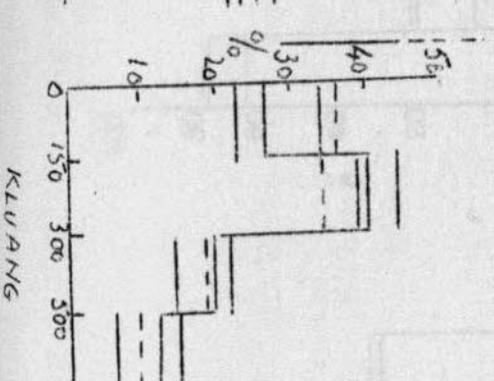
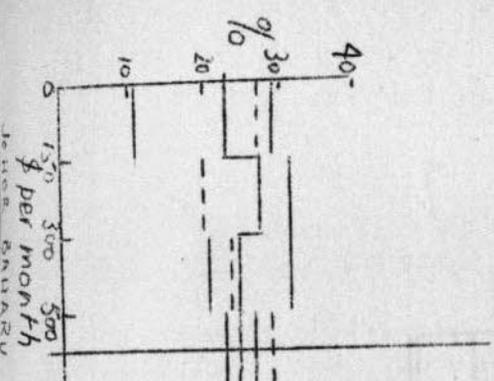
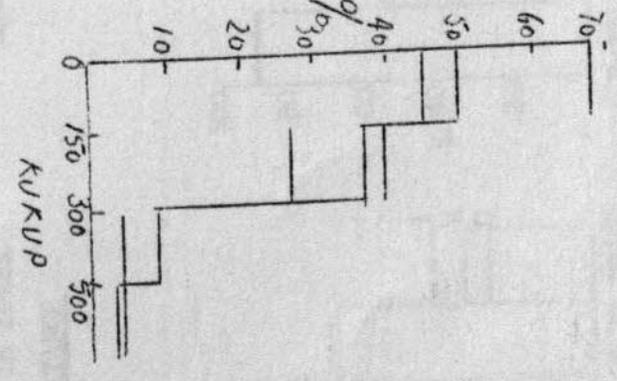
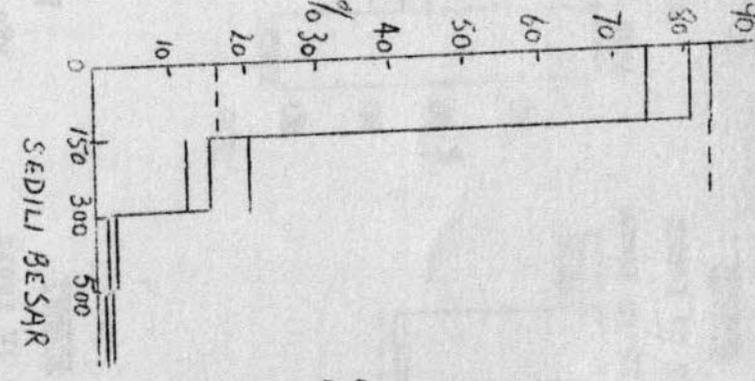
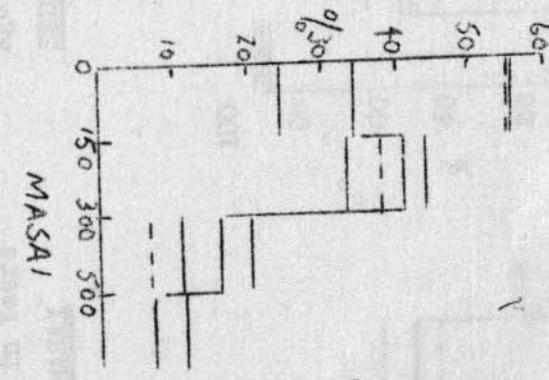
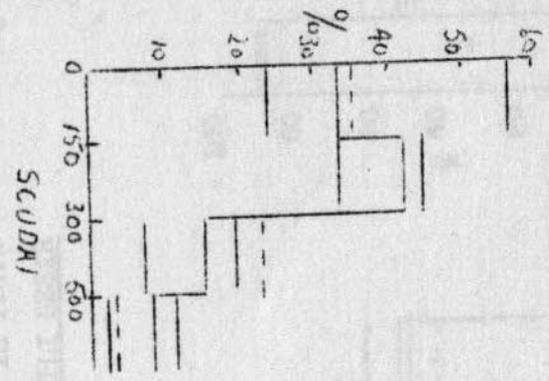
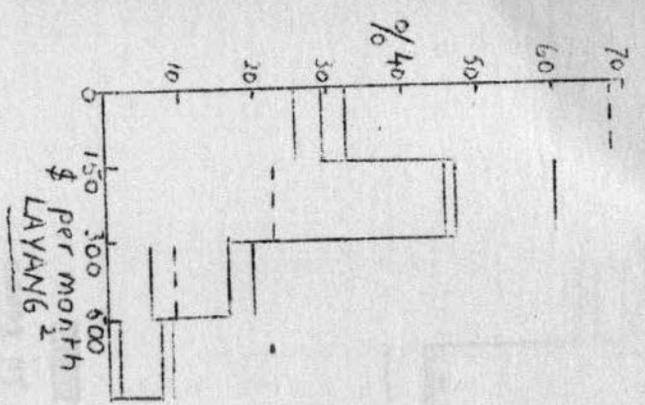
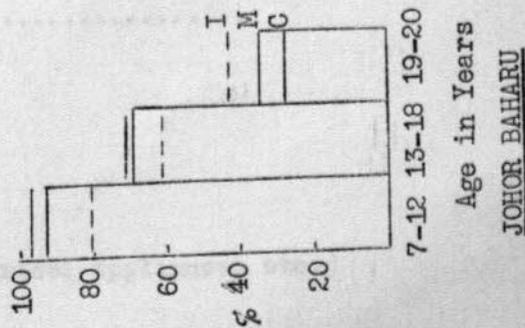
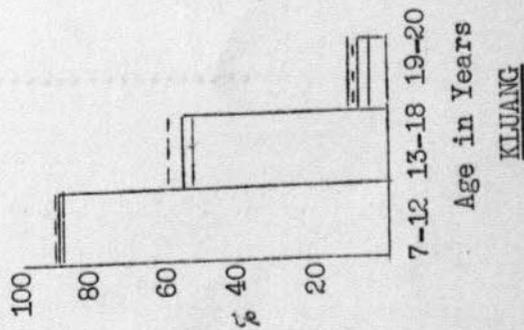
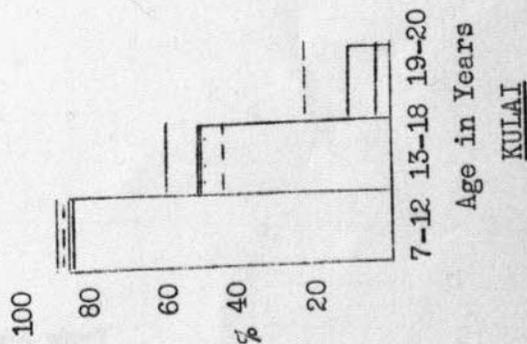
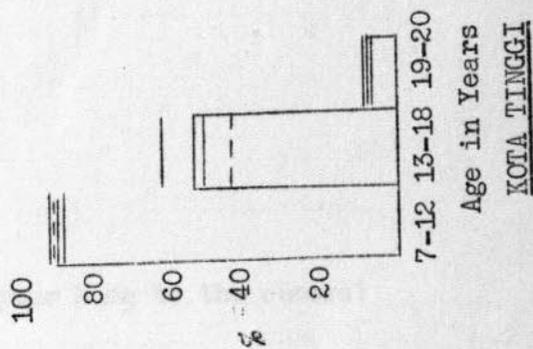
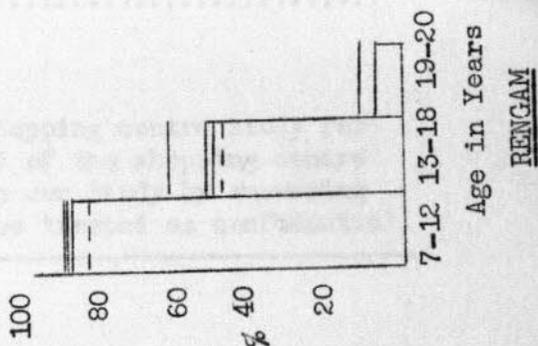
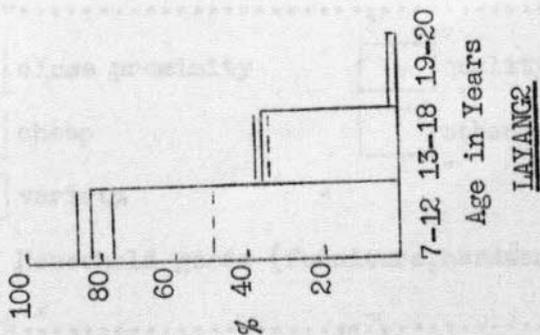
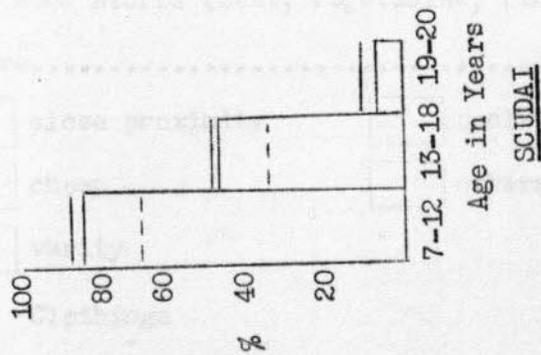
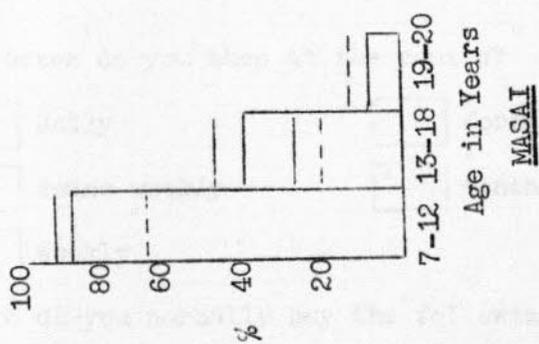
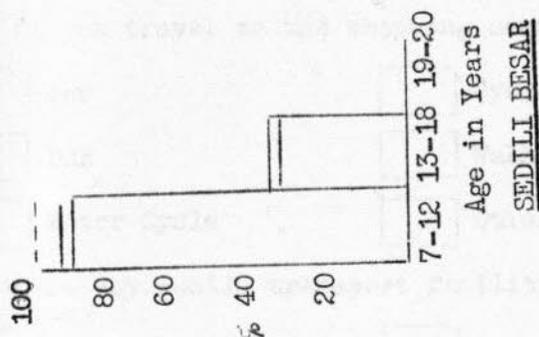
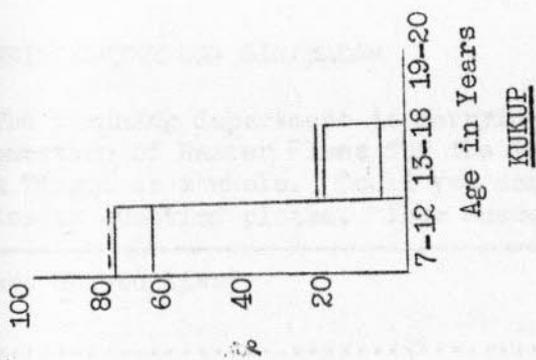


FIG 4
FAMILY INCOME

FIG. 5 SCHOOL ATTENDANCE (1970)



SHOPPERS SURVEY

CENTRE.....

TIME/DATE.....

INTERVIEWER.....

GOOD MORNING/AFTERNOON SIR/MADAM

The planning department is carrying out a shopping centre study for the preparation of Master Plans for the improvement of the shopping centre and Kota Tinggi as a whole. Could you assist us in our study by answering the following question please. Your answers will be treated as confidential.

1. Where do you live?

.....

2. How do you travel to the shopping centre?

- car Cycle
- Bus Walk
- Motor Cycle Others

3. Is there any public transport facilities from your home to the centre?

- Yes No

4. How often do you shop at the centre?

- daily fortnightly
- twice weekly monthly
- weekly

5. Where do you normally buy the following goods and why?

(a) Food stuffs (meat, vegetables, fish etc.)

Centre.....

- close proximity quality
- cheap others
- variety

(b) Clothings

Centre.....

- close proximity quality
- cheap others
- variety

(c) Household goods (furniture, hardware, electrical appliances etc.)

Centre.....

- close proximity quality
- cheap others.
- variety

(d) What about other goods, where do you buy them?

Centre.....Reasons.....

close proximity
cheap
variety

quality
others

6. (a) Do you combine your shopping trip with other business or social trip?

Yes No

(b) If yes, what are the other business or social trip?

.....
.....

7. What are the problems you encounter while shopping at Kota Tinggi?

.....
.....
.....

8. Any other comments you like to add?

.....
.....
.....

COMMENTS:

AGE:.....

SEX:.....

RESPONSE:.....

ement/Town
 Tenant
 No:Jalan/Lorong

Date/...../1970 S.No:.....
 Interviewer

MODATION TYPE: Shophouse House Flat Room Qrts.

ING TYPE: Ter Det. S/Det.

RECENT FLOOD RECORD:-

uilding.....Rent/Monthly \$
 and.....Rent/Monthly \$
 d occupied.....yrs Moved from.....

Highest W/L
 Evacuated to
 Damage Cost \$.....

Storey	Wall	Floor	Roof	Paint	Bed Room	Bath Inside	Bath Outside	Water	Elect.	W.C. Inside	W.C. Outside

EHOLD RMATION		1	2	3	4	5	6	7	8	9	10
H/H	M										
	F										
VOL P/S:- N/E/C/I	M	/	/	/	/	/	/	/	/	/	/
	F	/	/	/	/	/	/	/	/	/	/
ING: /Dist/ el by l S/G	M	/	/	/	/	/	/	/	/	/	/
	F	/	/	/	/	/	/	/	/	/	/
l by l S/G	M	/	/	/	/	/	/	/	/	/	/
	F	/	/	/	/	/	/	/	/	/	/
l by l S/G	M	/	/	/	/	/	/	/	/	/	/
	F	/	/	/	/	/	/	/	/	/	/

Outstation visits by:- own vehicle/Taxi/busand frequency:-

lorry	Car	Bicycle	Frig.	Gas Cooker
car	M/Cycle	T.V.	Elect. fan	Kerosene
m/c	Phone	Radio Gram/Trans	Sewing/m	Firewood