MULA

"CENSUS OF AGRICULTURE, 1960"

By

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CHAPTER ONE

INTRODUCTION

Early in 1958 the Federation of Malaya received an invitation from the Director-General of the Food and Agriculture Organization of the United Nations to participate in the 1960 World Census of Agriculture. This question of participation was fully considered and it was felt that Malaya should undertake the census as our knowledge of the smallholding, acreage, production and economic data relating to agriculture was inadequate particularly in terms of the number of farms as economic operating units as contrasted with ownership holdings. An Agricultural Census would thus be able to yield greater accuracy in the current statistics of landuse which until then was largely based on records of land alienation.

As such, two officers - one from the Department of Agriculture and the other from the Department of Statistics were nominated to attend the Regional Training Centre for Census officials held at Tokyo in September-December 1958.

I. Purpose of Census

Generally the purpose of the Census was to provide basic statistics on Malayan agriculture which was necessary for the planning of future development plans. This may be subdivided into:

(a) obtaining useful and reliable statistics concerning the characteristics of farms and the structure of the agriculture of the entire country and by States and major sub-divisions thereof primarily for use in national socio-economic planning and by industries concerned with the agriculture of the country.

(b) ascertaining the total harvested land area of individual major crops and total number of livestock by species to serve as a base for future current forecasts and estimates of crop and livestock production.

II. Scope

The Census concerns all economic units, farms, families or establishments engaged wholly or partly in agricultural production. These farms consist of estates and smallholdings growing either crops or rearing animals even when they occupy no land.

However the following major holdings operated by farm households were excluded:

a) a limited number of aborigines living in practically inaccessible mountains and jungle areas

b) 126 urban areas having less than 1,000 households and which were estimated to have less than 6 per cent of farm households by the State Agricultural Census Committees.

c) 76 urban areas having 1,000 or more households.

III. Organisation

A commission for Agriculture Census was set up within the Ministry of Agriculture in August 1959, consisting of 5 full-time senior officers seconded from Departments within the Ministry of Agriculture. A sum of $1,090,000 (Malayan) was voted for the project, to be spread over 3 years, for the planning and execution of the census programme. This commission worked in close collaboration with the Department of Statistics which undertook administrative control of the machine tabulation programme.

F.A.O. provided a statistician, Mr. S. Tsukibayashi, under the T.A.B. scheme to assist in the sampling work, and also visits were made by Regional Agricultural Census Advisers to solve census problems.

At State level the census organisation consisted of the Superintendent, who was in charge of the organization, the Assistant Superintendent, the Supervisors and the Enumerators. The State Superintendents were chosen from amongst the senior Government Officers in the State. Nine of them were State Agricultural Officers, one an Assistant Agricultural Officer and one a State Veterinary Officer.

IV. Legal Basis - Census Act 1960

The only then existing Census Ordinance was that which authorized a Population Census only. A revised enactment was thus necessary and drafted which extended the legal provisions of the Census Ordinance to cover all kinds of census operations. This was subsequently passed by Parliament; and as periodicity of the census taken was not specified, the Ordinance permits any census to be taken by any authority at any time.

V. Publicity

From the start it was fully realized that co-operation of all farmers and organizations related to agriculture was necessary. Great pains were thus taken to publicize the forthcoming Census. Help was sought through the various Agency Houses or Associations of smallholder and estates where they exist. Furthermore information on the Census covering its date and scope, were notified to the public through the Press, radio broadcasts, posters, handbills, information papers (mainly for government offices) and films for screening in rural areas.

Considerable assistance was given also by Government departments such as the Department of Information, Department of Broadcasting and the Malaya Film Unit.

VI. Pilot Census

As part of the prepatory work, two pilot censuses were conducted in September and October 1959. The first test was in the use of large area sample segments, the numbering of dwelling units and the completion of the Prelisting Household Schedule. The second was to test out the provisional questionaire.

CHAPTER TWO

METHODS AND CONCEPTS

1. Census Plan

The 1960 Census of Agriculture was based on a sample basis and hence the type of sampling design and size of sampling fraction must be known as it determines the scope and coverage of the census.

The Census excluded all small farms which were less than 1 acre in size for in theory though it was desirable to include all farms; in practice this was found to involve too much time, effort and money. Furthermore it was felt that these small farms do not contribute any sizeable agricultural output of Malaya. This together with the other 3 other exclusions (refer Ch I: (III)) were thus the only exclusions made for in the Census.

For purposes of the Census the remaining areas of Malaya was divided into 4 sections viz:-

a) Smallholdings
b) Estates
c) Government or Quasi-Government Farms
d) Group Farms - each with its own pattern of agriculture requiring its own questionaire

Smallholdings were enumerated on a sampling basis while the other 3 were enumerated on 100 per cent basis. So in analysis we must bear in mind that the sampling was only adopted for the smallholdings sector only.

An Estate was defined as farms of 100 or more cultivated acres of any one or several crops under a single management operating its own set of financial account. Cultivated land thus consists of all land cultivated with crops or land being cropped prior to planting is also included. As such the size of an estate was based on the area of land under cultivation as defined above and not as the total land in the estate.

The names and addresses of estates were extracted for the Statistics Department List, or RUCPM, or the

telephone directory, or the Straits Times etc. All in all 3,832 estates were enumerated; but subsequently it was known that about 70 of these were below 100 acres and thus were actually smallholdings - this would in effect influence the sampling basis - but they were included into the estates category.

A Government or Quasi Government Farm was one which was operated by a Government or Quasi Government for research, extension or commercial purposes. These were mainly managed by the Department of Agriculture, Veterinary Services, Rubber Research Institute and the Malayan Pineapple Industry Board. A list of these were compiled from records of these departments and altogether 135 of them were enumerated.

A Group Farm was one operated by a group of people who joined together to work land on a commercial basis although this was temporally under the management of the Government, as such it was found under the various Land Development Schemes in the country. A list of these farm came to 22 in number.

Coming now to the smallholdings which from the point of view of numbers are the most important of the 4 groups. This section consisted of all individual holdings of under 100 acres and a lower limit of ¼ acre was fixed. However, the livestock owned by these excluded were recorded at the time of listing the household schedule and these data were published, supplementing the present Livestock Census of the Veterinary Department by showing the frequency distribution of Livestock Ownership. Also this section was enumerated on a sample basis based on a two stage sampling design.

II. The Sampling Design

In the first stage the sampling units were geographical areas; while in the second stage the sampling units refer to the farms listed within the selected geographical areas of the first stage.

In the first stage each of the eleven states in Malaya was divided into urban and rural areas. These areas were then subdivided into geographical areas known as area segments - each consisting of 100 households. All in all there were 917 area segments in the urban area and 6,129 area segments in the rural area.

These 7,046 area segments were then stratified into 9 types of farming activities viz:-

a) predominantly rubber,

b) predominantly coconut
c) predominantly padi
d) predominantly gardening
e) predominantly other crops specified
e.g. palm oil
f) equal rubber and padi
g) equal coconut and padi
h) mixed
i) farming
and j) non-farming (i.e. livestock)

After stratifying these segments according to the main type of farming activities, 50 per cent of the segments in each strata were randomly selected, thus in each of the 9 strata there are a number of segments these not being equal in number in each group, of which 50 per cent were selected.

As a result, for Malaya as a whole 50 per cent were selected in this stage. The final analysis was that 466 out of 917 segments were selected in the urban areas, and 3,049 out of 6,123 were selected from the rural areas. So all in all 3,515 segments were selected in this first stage; and all these work was done in the census office itself without having to resort to field enumeration.

The second stage was accomplished with some field work. Enumerators were sent out to the 50 per cent selected segments to make a list of all farms and land area in each farm. The enumerated farms within each selected area was then used as sampling units. All segments enumerated became "Enumeration Blocks"

All the farms selected for field work for each enumeration block was then statified according to the size of the total land. The farms were divided into 2 sizes

a) 15 acres and over
b) less than 15 acres but greater than
¼ acre (as mentioned, those less
than ¼ acre were entirely excluded
from the census)

Those 15 - 100 acres i.e. large farms were then enumerated on a 100 per cent basis. As for the small farms ¼ to 15 acres, these were further subjected to a sampling basis.

The method of sampling for these small farms involved the renumbering of the small farms in descending

order according to their sizes. From this arranged list 1/10 of them were selected; selection being based on a random basis. A random number was supplied to the enumerators at the headquarters by the Supervisor.

III. Cartographic Work

A wide range of maps covering the whole geographical area of the country were available. These maps used for the census were:

a) District Maps (1 inch to 1 mile) which were used by Supervisors as control over the segments created on the lot maps.

b) Topographical Maps - For most States these were the Old Series (1 mile to 1 inch). For some States, new series topo-sheets were available (1 mile to 1 inch, or 1 mile to 2½ inches) which contained more up-to-date information.

c) 1957 Population Census Maps - some of these provided the necessary information on population distribution.

d) Lot Maps (1 inch to 8, 4 or 2 chains) - The selected segments were drawn on these maps and these were used by Enumerators for indentifying on the ground the boundary of the Enumeration Block.

The initial work on the maps was done at the Headquarters. These to be separately enumerated i.e. the urban areas un or estate control were marked on the maps and were excluded from the rural area segmentation.

The creation of rural segments on the maps was done at State level and instruction on segment creation was issued by Headquarters.

IV. Information

Method of collecting information varied with different type of farms. For small holdings information was collected by means of personal interviews. This was because of the high rate of illiteracy and also that the questionnaire was long and complicated. As such though it was tedious, time consuming and expensive, enumerators were sent out with questionnaires, each form containing 82 questions.

The draft content of the smallholding farm questionaire was prepared in consultation with a number of organisation both in and outside the Government, and this was finalized after pre-tests.

Information on estates were however obtained by means of two main postal questionaires. The first was sent to the estates requesting each manager to submit information on lot number and location of the estate. This was followed by the principal questionaire sent requesting for detailed information on land use and other agricultural activities.

In a similar manner questionaires for the enumeration of estates, Government/Quasi Government and Group Farms were compiled after discussions with various institutions and organizations with interests in Agriculture.

The Group Farm questionaire were despatched direct to the Head and the Farm which accepted the responsibility for their compilation. The Government/Quasi Government Farm questionaires were on the other hand sent to the State superintendent of the census.

All questionaires were printed in two versions viz Malay and English/Chinese. The estate questionaire was despatched in August 1960, covering a total of about 3,000 estates. The Group farm questionaire was posted in August and the Government Farm questionaire in October 1960.

V. Time-reference

The time reference also varied For estates information on land area, power and transport, tractors, equipment, staff and employment were compiled as of 31st July 1960 for Government farms this same information was collected as of 31st September 1960 whilst the same information for the Group Farms was collected as of 31st July, 1960.

With reference to the collection of data on production, usage of fertilizers and weed killers, all the estates, Government and Group farms collected data for the year 1959.

VI. Recruitment and Training of Census Staff

The field enumeration of the smallholding Section of the Census involved a total staff of 842 enumerators and 142 supervisors. The departments within the Ministry of Agriculture provided 5 per cent of the census officers.

Training was undertaken in two stages. The first stage was the training of 47 officers at Federal level and was held in Kuala Lumpur from 8th to 18th December 19[illegible]. These officers [illegible] were to become Assistant State Superintendents or supervisors in their own States were responsible for the training of census officers in the second stage.

The second stage training was for the enumerators and the remaining [illegible] was undertaken between January and March 19[illegible] in [illegible] Training Centres in the country.

The Urban Area enumerators who were recruited after selection of the segments were given special separate training in 9 Training Centres.

The period of training was about 7[illegible] days which included [illegible] field working days. The training was conducted in English for officers at the Federal Training Centre for the Urban Area Enumerators whilst the courses for the rural area enumerators were in Malay.

Training Manuals were prepared in English for supervisors describing their duties and advising on the running of Enumerators Training Courses. Enumerators' Instruction Manuals for the Farm Listing Sheet and for the questionnaire were printed both in Malay and English. Supervisors' Instructions on second-stage sample selection of farms and on non-response action were both in English.

VII. Field Enumeration

The enumeration of the [illegible] farms began in April 1960 and was completed in about [illegible] month. The work involved [illegible] initially to fill in the Farm Listing Sheets which was [illegible] designed [illegible] to enable the supervisor to select a 10 per cent sample of census farms in each [illegible] Enumeration Block by systematic random sampling from the small farms (¼ to 14¾ acres). All farms of 15 acres or more were also included in the sample. The next stage was filling up the questionnaire for all the selected farms in the Listing Sheet.

In all [illegible] Enumeration Blocks were enumerated and altogether [illegible]81 Farm Listing Sheets and [illegible] Farm questionaires were used.

CHAPTER THREE

THE NATURE AND CHARACTERISTICS OF FARMS

In this and the following chapters an attempt will be made to describe and to analyse wherever possible the major features of Malayan Agriculture as observed from the statistical data accumulated and tabulated by the sixteen Preliminary Reports of the Census of Agriculture, 1960.

In these reports the different aspects of farms are classified and cross-classified under several headings e.g. according to the states in the Federation, to the different sizes of farms, to the type of farming adopted, to the tenure status of farms etc.

This chapter however is devoted to the concept and general nature of farms with respect to the number of farms, the size of farms, and the type, tenure and fragmentation of farms.

I. Definitions

In the first place, farming operations were defined as the "growing of crops or the keeping of livestock for food (or for draft purposes on a farm)". These farming operations may either be conducted by full-time or by part-time farmers and includes farms which are run by managers or agents on behalf of others.

There are however some farms which were excluded from enumeration for the sake of economy. First of these are the farms which are under ¼ acre or relong of land. Then the urban areas with negligible agricultural activities were also excluded. These include the large urban areas with population exceeding 1,000 households, and also the smaller urban areas which have only 5 per cent or less of households engaged in agriculture. Finally there are those "farms" which were separately registered and thus subjected to direct postal enumeration. These were the estates, and government and group farms (see Chapters 6 and 7).

II. Number of Farms

A total number of 450,672 farms were enumerated in the Federation as shown in Table 3.1 which shows the total number of farms by States. About 1/3 or

Table 3.1 **Distribution of Farms by Size, Rural-Urban Areas and State**

STATE	Total Farms	%	(a) Large Farms Number	%	Small Farms Number	%	(b) Rural Number	%	Urban Number	%
Malaya	450,672	100	18,084	100	432,588	100	409,438	100	41,234	100
Johore	56,246	12	4,636	26	51,590	12	50,026	12	6,220	15
Kedah	83,526	19	3,704	20	79,822	19	79,304	20	4,222	10
Kelantan	70,736	16	1,532	8	69,224	16	66,036	16	4,700	11
Malacca	18,714	4	556	3	18,158	4	18,380	5	334	1
Negri Sembilan	23,944	5	658	4	23,286	5	21,654	5	2,290	6
Pahang	27,834	6	1,694	9	26,140	6	24,928	6	2,906	7
Penang	19,466	4	692	4	18,774	4	17,578	4	1,888	5
Perak	73,062	16	2,534	14	70,528	16	60,308	15	12,754	31
Perlis	12,734	3	120	1	12,634	3	12,634	3	290	1
Selangor	34,034	8	1,000	6	33,034	8	29,000	7	5,034	12
Trengganu	30,336	7	938	5	29,398	7	29,720	7	616	1

134,28[illegible] of this total number of farms are found in the two States of Kedah and Kelantan, though Kedah is by no means a big state and Kelantan is considered to be relatively undeveloped.

Farms may be dichotomized into either large or small farms; or rural and urban areas. The classification into large and small farms brings out the pattern of agriculture more clearly. For the Federation as a whole it can be seen that 95 per cent or 132,5[illegible] are small farms leaving only [illegible] are 15,08[illegible] large farms. This proportion also conforms to the pattern in the two states of Kedah and Kelantan where the percentage of large farms is calculated to be only 5.1 per cent of the total farms in these two States. This division into small and big farms however shall be discussed in greater details in the next section of this chapter; and it will be sufficient here to assert that this arbitrary division refers to farms which are 1/- to 15 acres of land as small farms, and those of 15 acres but less than 100 acres as big farms, based upon the total cultivated land acreage which excludes any land which is not actively cultivated for crops.

As expected of any agricultural and underdeveloped country, Table 3.1 also shows that the majority of the farms are found in the rural areas. Only 3.2 per cent or 41,231 farms in the Federation are found in the urban areas, i.e. farms which are operated by farmers resident in the gazetted urban areas of towns, villages, local councils etc as listed in the 1957 Census on Population. In this respect the two West Coast States of Selangor and Perak recorded the highest number of urban farms, this being one of the characteristics of the degree of development. This is especially so of Perak (the tin-mining state) which reported 18,15[illegible] farms (or 25 per cent) in the urban areas out of a total of 69,[illegible]68 farms.

Finally the significance of the large percentage of rural farms in the country as compared to urban farms implies it worthwhile to report the rural farms down to district level, while urban farms are reported down to State level only.

3.1. Size of Farms

The characteristic size of farms is brought out clearly in Table 3.2 where farms are classified into 18 size-groups by states, according to the total area of land used for farming operations during the agricultural year preceding the census month, April 1960. These areas were

Table 3.2. **Distribution of Farms by Size and State**

STATE	Total Farms (all sizes)	Farms by Size Groups (Acres)											
		½	½-1	1-1½	2-2½	3-3½	4-4½	5-9½	10-14½	15 - 24½	25 - 49½	50- 99½	100 over
Malaya	430,672	14,284	32,400	81,054	79,048	56,354	40,740	100,776	27,900	12,668	4,462	804	182
	% 100	3	7	18	18	13	9	22	6	3	1	0	0
Johore	56,246	430	1,782	6,732	9,686	6,888	5,686	14,786	5,990	3,122	1,264	216	64
	% 100	1	3	12	17	12	10	26	10	6	2	1	0
Kedah	83,526	1,802	5,312	12,360	13,878	8,944	7,202	23,540	6,780	2,656	882	136	34
	% 100	2	6	15	17	11	9	28	8	3	1	0	0
Kelantan	70,756	4,294	6,744	15,290	13,686	9,168	5,562	11,800	2,676	1,138	316	78	4
	% 100	6	9	22	19	13	8	17	4	2	0	0	0
Malacca	18,714	1,396	2,388	4,074	3,306	1,976	1,376	2,836	808	338	172	38	6
	% 100	7	13	22	18	11	7	15	4	2	1	0	0
Negri Sembilan	23,944	1,018	2,208	4,672	4,126	3,030	2,192	4,776	1,268	440	168	42	10
	% 100	4	9	20	17	13	9	20	5	2	1	0	0
Pahang	27,834	624	1,992	4,048	3,816	2,784	2,648	7,950	2,670	1,302	364	32	4
	% 100	2	6	14	14	10	9	29	10	5	1	0	0
Penang	19,466	690	1,736	5,466	3,578	2,190	1,850	2,573	684	422	200	58	14
	% 100	4	9	28	18	11	10	13	4	2	1	0	0
Perak	73,062	2,010	5,612	14,396	12,524	9,596	6,898	15,806	3,684	1,810	574	118	34
	% 100	3	8	20	17	13	9	22	5	2	1	0	0
Perlis	12,754	196	662	1,582	2,798	1,720	1,336	3,728	612	92	22	2	4
	% 100	2	5	12	22	14	10	29	5	1	0	0	0
Selangor	34,034	634	1,572	5,844	5,682	6,576	3,504	7,508	1,714	678	266	50	6
	% 100	2	5	17	17	19	10	22	5	2	1	0	0
Trengganu	30,336	1,190	2,798	6,590	5,968	3,482	2,486	5,468	1,414	670	234	34	2
	100	4	9	22	20	11	8	18	5	2	1	0	0

either used for growing temporary crops or used for rearing livestock or for growing permanent crops (see Chapter V on Farm Products).

This table brings out the feature mentioned above, that Malayan farms are predominantly small in nature. It is found that the largest single size frequency is centered around that of 5 - 9¾ acres which contains 1[illegible],770 or 2[illegible] per cent of the total number of farms in Malaya. Further more on computation it is found that about [illegible] per cent of the total of the farms are clustered between the sizes 1 - 1¾, 2 - 2¾, and 3 - 3¾ acres. Also where big farms are concerned, all the states (with the exception of Johore and Pahang) have only 3 per cent of their farms on the average, with acreages of 15 and above. In Johore and Pahang the percentages of farms greater than 15 acres come up to 9 per cent and 6 per cent respectively of each state total number of farms. On the other extreme Malacca seems to have an exceptionally high level of very small farms - 20 per cent of its total farms being between ¼ - ¾ acres in size.

In the table there are some "farms" greater than [illegible] acres which were enumerated - 18[illegible] of them. In theory these were to be under the "estates" category and this covered by postal enumeration but in practice it was found that these 18[illegible] "farms" were unregistered (as were reported by the field enumerator) and as such had to be included thus inflating the number of smallholding farms and this had subsequently some effects on the sampling design of the Census.

One other irregularity was that in practice the minimum size of farms was smaller in areas where the small relong kechil/acrah (equivalent to 0.711 acre) was used; and was slightly larger in area where farmers used the relong besar/Pulau Pinang (equivalent to 1.[illegible] acre) used. This however was unavoidable since the [illegible] is the smallest commonly used sub-unit in both of these units of measurement.

[illegible] Type of Farm

Farms were classified into 7 types in Table 3.[illegible] namely wet padi, vegetable gardens, other temporary crops, rubber, coconuts, fruit or kampong land and mixed farming. This division was decided upon by the predominant land use of the farms. Thus for example a "rubber" farm is one in which 7[illegible] per cent or more the cultivated area is reported under rubber; whilst "mixed" farms are all those farms in which any one type of crop accounts for

Table 3.3 **Distribution of Farms by Type and State**

STATE	Total Farms		Type of Farm: Wet Padi		Vegetable Gardens		Other Temp. Crops		Rubber		Coconut		Fruit/ Kampong		Mixed	
		%		%		%		%		%		%		%		%
Malaya	449,650	100	132,276	30	4,040	1	9,954	2	90,886	20	28,576	6	49,812	11	134,006	30
Johore	56,128	100	1,200	2	260	0	840	1	28,370	52	10,392	19	5,858	10	9,206	16
Kedah	83,534	100	44,910	53	480	1	734	1	7,996	10	250	0	5,076	6	24,088	29
Kelantan	70,424	100	20,554	29	60	0	600	1	9,204	13	1,168	2	10,520	15	28,318	40
Malacca	18,556	100	3,128	17	100	0	120	1	3,334	18	528	3	3,600	19	7,746	42
Negri Sembilan	23,774	100	2,980	13	200	1	320	1	5,156	22	120	1	2,922	12	12,076	50
Pahang	27,910	100	3,940	14	1,020	4	440	2	8,866	32	876	3	2,244	8	10,524	37
Penang	19,686	100	11,290	57	240	1	262	1	1,330	8	1,110	6	2,068	11	3,196	16
Perak	72,646	100	20,772	28	1,160	2	4,398	6	16,834	23	4,976	7	6,350	9	17,856	25
Perlis	12,640	100	8,540	68	0	0	120	1	254	2	0	0	540	4	3,186	25
Selangor	34,034	100	7,996	23	300	2	540	2	6,658	20	7,180	21	5,252	15	5,908	17
Trengganu	30,318	100	6,966	23	20	0	1,580	5	2,684	9	2,086	7	5,082	17	11,900	39

less than 76 per cent of the total cultivated acreage.

Thus in Malaya of the total 449,6[illegible] farms, 30 per cent are under wet padi, 30 per cent under mixed farms 20 per cent under rubber, 4 per cent under fruit or kampong land; 6 per cent under coconut; 2 per cent under temporary crops and only 1 per cent under vegetable gardens.

Of [illegible] State total for the two crops of rubber and coconut, [illegible] 71 per cent, Selangor 41 per cent and [illegible] 51 per cent ([illegible]) of their farms cultivated with these two predominant cash crops. In the Northern States padi seemed to be more predominant Kedah 63 per cent; Penang and Province Wellesley 57 per cent, Perlis 68 per cent (again percentage on State totals). Another feature worth noting is that in every state there is a large number of mixed farms except in the states of Selangor and Johore which are predominantly rubber studded, and Penang and Province Wellesley which are predominantly under rice cultivation.

In the Federation Selangor and Johore seems to have the most number of coconut farms - of a total of 28,670 farms, Johore accounted for 10,30[illegible] while Selangor had 7,180 farms. Johore again tops the list, having also the greatest [illegible] 27 followed by Perak [illegible] 10,[illegible] rubber farms. This phenomena thus illustrates the fact that majority of the land in the west coast are used for cash crop cultivation.

Finally where padi is concerned Kedah (44,910) has twice the amount of [illegible] farms [illegible] compared with any other states. Here it is very probable [illegible] a [illegible] are on a subsistence basis.

V. Tenure Systems of Farms

Malayan farms can also be classified according to their respective tenure status as shown in Table [illegible]. This classification is made according to whether the total farm land is under one single tenure status ([illegible] per cent of all farms) or under two or more systems, [illegible]ly referred to as "Mixed Tenure Status" ([illegible] per cent).

Table 3.4 **Distribution of Farms by Tenure Status and State**

STATE	Total Farms	TENURE STATE											
		SINGLE TENURE								MIXED TENURE			
		Owner		T.O.L.		Tenant		Others		Owner/Tenant		Others	
Malaya	449,690	263,456	59	18,580	4	44,992	10	26,274	6	36,826	8	59,512	13
Johore	56,128	44,748	80	2,476	4	80	0	3,412	6	24	0	5,388	10
Kedah	83,534	30,942	38	1,218	1	20,060	24	6,070	7	9,898	12	15,346	18
Kelantan	70,424	36,366	52	404	1	4,380	6	3,842	5	13,814	20	11,418	16
Malacca	18,556	15,726	85	300	2	862	4	320	2	590	3	818	4
Negri Sembilan	23,774	19,922	83	622	3	460	2	628	3	860	4	1,282	5
Pahang	27,910	17,378	62	1,348	5	980	4	2,244	8	1,094	4	4,866	17
Penang	19,686	8,786	45	974	5	6,480	33	726	3	2,114	11	1,066	5
Perak	72,646	44,276	61	5,972	8	6,868	9	6,858	9	3,320	5	5,952	8
Perlis	12,600	3,982	31	660	5	1,622	13	722	6	1,516	12	4,118	33
Selangor	34,034	23,230	68	3,724	11	1,160	4	1,344	4	606	2	3,968	11
Trengganu	30,138	18,100	60	1,282	4	1,840	6	708	2	3,018	10	5,350	18

As seen in the table single Tenure Status is once again subdivided into either owner (69 per cent); temporary occupational license (4 per cent); tenant (10 per cent and others (6 per cent), while Mixed tenure status is divided into Owner/Tenant (8 per cent) and other (13 per cent)

All farms in Malaya however may be obtained through either of the following four main systems namely:-

a) "own on permanent title"
b) "Own on Temporary Title" (T.O.L.)
c) "Rented in cash or in kind"
and d) "Get by other systems"

(a) Land obtained for farming on a permanent Title basis virtually makes the farmer the real owner of the land, and this category is thus largely comprise of farms under the column "owner" in Table 3.4. This type of farms usually take the form of an approved grant or title from the Government through various methods e.g. Entry in the Mukim Register; Grant; surat Putus; Agricultural Leases etc. In this system the farmer has virtually unrestricted powers to transfer the land by sale or by gift.

In the Census farms which were then as yet unregistered but that were undoubtedly of this nature (as reported by the enumerator) were included. These lands as such were unofficially under this category but were just in the writing for official registration in the Land Offices.

In Malaya 26 ,456 out of a total of 469,650 farms were under this system which is approximately 69 per cent. The Southern States of Johore, Malacca and Negri Sembilan show very high State percentages of farms under this permanent title ownership. All of them has an average State percentage of 82. It is probable that this feature is due to their traditional custom of land ownership. The northern States of Perlis, Kedah, Penang and Province Wellesley on the contrary have only 31 per cent, 38 per cent and 45 per cent of their State total under this category respectively.

(b) These farms are those under the Title or temporary occupational license system. Here the land is occupied at a small nominal fee and this type of ownership is usually recognised as a first stage towards obtaining a more permanent title; but of course this need not always be the case. Sometimes such lands are intended

for proposed buildings or for mining activities and as such only temporary crops may be grown on such grounds.

Only 4 per cent or 18,880 farms in the Federation are found under this system. 11 per cent of Perak's farms and 8 per cent of Selangor's are under I.C.L. In the Federation these two States have the highest percentage of their farms under the I.C.L.

(c) The third type of tenure system is concerned with all the farms that are rented out in cash or in kind. Here the farmer obtains land in return for either fixed sums of cash or fixed amounts of crop e.g. one-half or one-fifth of the total harvest. Included in this section is land for which the farmer makes payments by rendering his services in the form of ploughing, clearing jungle or loaning money.

Most of these farms are found in the northern states of Kedah (20,080), Penang and Province Wellesley (6,480) and Perlis (1,682). The usual problem in this type of farms is that initiative of the farmer is usually absent. This is because the land is not his and the farmer may even have to face the problem of no security. With regards to the duration of the lease. As such he has no initiative to improve the land that he is operating. Furthermore he is usually being exploited by his landlord and is also usually already in great debt.

(d) Finally we have the fourth type of tenure system under the heading of "get by other systems". These are those farms which consist of land cultivated freely without any payment of fees or rents either to the Government or to any private landlord. Examples of such type of land are the road and railway reserves and the squatter lands. Included in this group are areas of land where the tenure system is unknown.

VI. Fragmentation of Farms

Fragmentation of farms may also be referred to as the number of parcels a farm is being divided up into. Farms are classified by the number of separate non-contiguous "parcels" or "pieces" of the total land in each farm in Table 3.5. in order to reveal the extent of fragmentation. A "parcel" however was defined as land entirely surrounded by the land of other farmers or by the land not forming part of any farm, for example,

Table 3.5 **Distribution of Farms by Number of Parcels per Farm and State**

STATE	Total Farms		NUMBER OF PARCELS PER FARM											
			1		2		3		4		5 - 9		10 and over	
Malaya	449,690	100	208,246	46	120,060	27	63,976	14	29,128	7	25,290	6	1,990	0
Johore	56,128	100	32,578	58	12,732	23	5,582	10	2,320	44	2,776	5	340	0
Kedah	83,534	100	36,158	43	23,216	28	12,102	15	5,264	6	4,60[illegible]	6	182	0
Kelantan	70,424	100	17,722	25	19,290	27	14,888	21	8,848	13	8,91[illegible]	13	798	1
Malacca	18,556	100	8,914	48	5,372	29	2,590	14	822	5	80[illegible]	4	56	0
Negri Sembilan	23,774	100	9,420	40	7,646	32	4,030	17	1,538	6	1,11[illegible]	5	30	0
Pahang	27,910	100	10,736	39	8,352	30	4,764	17	2,496	9	1,49[illegible]	5	64	0
Penang	19,686	100	11,672	59	5,426	28	1,796	9	590	3	23[illegible]	1	8	0
Perak	72,646	100	41,704	58	17,612	24	7,942	11	2,938	4	2,22[illegible]	3	226	0
Perlis	12,640	100	5,638	45	3,930	31	1,926	15	638	5	50[illegible]	4	4	0
Selangor	34,034	100	21,894	64	8,322	24	2,594	8	716	2	50[illegible]	2	46	0
Trengganu	30,138	100	9,800	32	8,202	27	5,802	9	2,998	10	3,280	11	236	1

forest, river, main roads etc. and may consists of a whole grant of land, only part of a grant or several grants.

Thus in the Federation of the total number of farms only 48 per cent or 202,246 farms are intact i.e. in one parcel, while 130,060 are in parcels, 63,97[illegible] in 3 parcels, 39,12[illegible] in 4 parcels; 26,[illegible]50 in 5 to 9 parcels and 1,9[illegible]0 fragmented into 10 and over parcels.

It may be noted at this juncture that the Malayan land Codes are not a Federal matter but are placed in the powers of the States. As such though the Federal Government is in a position to advise and seek -co-operation from each individual State it is not able to enforce its will directly. As such in the past each State had evolved its own system of practice with regards to land matters (though some states may have uniform land codes) and this phenomena has definite effects on especially the pattern and extent of fragmentation of farms in each State.

Thus it may be noted that in Kelantan 48 per cent of its farms are fragmentated into 3 parcels and above whereas in Penang and Province Wellesley the extent of fragmentation is not so serious as only 1[illegible] per cent of its farms are fragmented into 3 parcels and above. Generally speaking the West Coast States e.g. Johore, Selangor, Penang and Province Wellesley and Perak farms are less fragmentated. Of their total State farms, 58 per cent, 64 per cent, 59 per cent and 58 per cent respectively are kept intact or in one parcel. This again may be due to the general similar characteristic of being more developed and that they are predominantly cultivated with cash crops. Of course the State Government in each of these States also has a large role to play where fragmentation is concerned it is probable that these Governments' are more conscious of the disadvantages of fragmentation. Also the higher rate of literacy amongst the farmers themselves and the tendancy not to stick too closely to traditions are also de iding factors of fragmentation.

This problem of fragmentation was of such great economic importance that the Central Government wrs at one time very much concerned on the extent of fragmentation. As such a survey was undertaken by the undergraduates of the Malayan University and a report with recommendations was edited by Professor Ungku Aziz in three volumes entitled "Estates and Their Sub-Divisions".

CHAPTER FOUR

DEMOGRAPHIC FEATURES

This chapter deals with the demographic characteristics of farms as is reported in the Census of Agriculture Preliminary Reports No.11 and 12. The chapter is clearly dichotomised into the different major components that constitute the whole family of labor in the farms. Thus the first part pertains only to labor contributed to farm production by the farmer and the members of his household subsequently known as "farm labor", while the latter half will be focused on "Non-family labour" i.e. persons employed in farms from outside the farm household.

A. Farm Labour

I. Definitions

In the Census, a farmer was defined as the person who uses land for his farming operations and who takes the responsibility of deciding the major farm operations. As such he may or may not own the land himself, but he must be responsible for deciding the major policies of the farm.

Family labour on the other hand was defined as the contribution to the economic production by the farmer and members of his household which includes the farmer, his wife, relatives and even those who are not related to him but who are nevertheless staying and eating with the farmer; as is reported in the words of the Census "...all persons living and eating together from the same cooking pot."

Enumeration however, was confined only to those 15 years and above; and also of course to farms whose sizes were at least ¼ of an acre or 1 relong besar or kechil in area.

II. Age and Sex of the Farmer

In Table 4.1 the Sex and Age of Farmers are tabulated by States. Of the 449,650 farms reported 374,650 or 83 per cent of them are owned by male farmers while the remaining 75,000 are owned by female farmers.

Table 4.1 Distribution of Sex and Age of Farmers by State

STATE	Sex of Farmers: Males	Females	Age of Farmers (in years): Up to 19	20-29	30-39	40-49	50-59	60-69	70-79	80 and over	Unknown
Malaya	304,080 88	46,000 12	3,944 1	64,284 14	107,748 24	112,332 25	87,888 20	48,984 11	15,504 3	5,086 1	3,910 1
Johore	50,228 89	6,000 11	408 1	7,274 13	12,996 23	13,936 25	11,574 21	7,032 12	1,826 3	572 1	436 1
Kedah	76,012 91	7,582 9	848 1	15,438 16	21,082 20	19,440 23	13,919 17	8,234 10	2,720 3	1,242 2	388 6
Kelantan	62,828 89	7,796 11	822 1	16,806 15	18,118 26	17,188 24	13,038 19	7,312 10	1,834 3	404 1	570 1
Malacca	15,018 81	3,546 19	182 1	1,378 17	3,888 20	4,722 25	4,388 23	2,985 16	88. 5	208 1	82 0
Negri Sembilan	18,108 80	4,866 20	40 1	2,082 11	5,390 22	8,508 28	4,596 21	2,776 12	912 4	208 1	184 1
Pahang	24,232 87	3,678 13	48 0	3,762 14	7,138 28	7,052 25	4,032 18	2,848 10	908 3	382 1	812 3
Penang	17,582 89	2,124 11	60 0	2,148 11	4,346 22	5,480 28	4,382 22	2,142 11	832 4	212 1	84 1
Perak	61,708 85	10,938 15	582 1	8,016 12	17,482 24	18,488 26	14,588 20	8,[illegible]34 11	2,758 4	1,232 2	30 0
Perlis	11,488 91	1,142 9	188 1	2,288 18	2,820 22	3,084 25	2,342 19	1,234 10	4.2 3	140 1	0 0
Selangor	28,738 87	4,286 13	382 1	4,480 13	7,774 23	6,458 25	6,512 21	4,030 12	1,528 4	856 3	84 0
Trengganu	28,828 89	3,382 11	404 1	5,878 17	8,404 21	7,898 28	6,308 21	2,912 10	862 3	336 1	64 0

In no State of the Federation are the female owners greater in number than the male farmers. This reflects the paternalistic pattern of Malayan Agriculture. In Negri Sembilan there are 4,666 female owners which accounted for 20 per cent (the highest in the Federation) of the total farms. Malacca reported 19 per cent of its farms being under female owners. This phenomena can be accounted for, when a reference is made to the Land Codes of each of these 2 states. Here according to the custom, where land is owned on a permanent title basis, transfer is restricted only to other female members of the same tribe

Kedah and Perlis on the other hand, as contrasted to the other two southern states, reported the least percentages of female owners. In both States only 9 per cent of the total farms were under female owners.

Where age is concerned the largest age group of farmers is around the age group 40 - 49 which accounted for 26 per cent or 112,332 farmers. However the majority of the farmers 69 per cent are within the age range of 30 - 59. In agriculture there seems to be a large number of old owners, who if considered on an urban industrial basis should have already been on the pension list. In the Census however there were reported 21,482 farmers who were over 70 years of age. This large number of old owners is quite natural due to the unique structure of farming activity.

A farmer was if recalled, the person who was responsible for the decisions on the major policies of the farm. As such there is no reason why the "grand old man" of the family was not placed in this position. He may only be in a position to delegate tasks and decide on major policies while the real physical labour may be contributed by the member of his household.

On the other end of the scale there also seems to be quite a substantial number of very young farmers. There are 3,944 or 1 per cent of farmers between the ages of 15 - 19 and 64,328 or 14 per cent in the next youngest age group of 20 - 29. This may be due to the practice of inheritance. Usually as long as the old man lives he is responsible for all the operations of the farm, but on his death his sons and daughters may not be able to keep the farm "in one piece". As such it is probable that the farm will be subdivided and fragmentated accordingly. But in some States however it is fortunate that there is a law which prevents fragmentation on land which is t nere of size.

The northern States of Kedah and Perlis reported the highest level of farmers between the ages of 30 - 39 Kedah had 18 per cent and Perlis too reported the same percentage of their farmers in this age group. On the contrary Selangor, Malacca and Perak reported the lowest percentages of young farmers but the highest percentages of farmers who are 70 years and above. Then the under-developed state of Pahang reported the highest percentage of farmers who do not know their age. Kelantan, another remote state also had a large state percentage of farmers who reported their ages as "unknown".

III. Type and Nature of Tenure of Farmers

In Table 4.3, type and nature of farmers are tabulated according to the major type of farms namely wet padi; vegetable gardens, other temporary crops, rubber coconut; fruit/kampong and mixed farming. There are three major types of farmers classified under self-employed type, managerial group and a mixed group who were simultaneously both self-employed and managers.

The largest of these three divisions are the farmers who belong to the self-employed group. This group accounted for 448,350 out of a Federation total of 449,650 farms. These are those who are working on their own account and as such are receiving/or bearing the whole of profit/or loss resulting from the operation of the farms.

Table 4.2 **Distribution of Type Residence of Farmers by Type of Farms**

Type of Farm	Total Farms	Type of Farmer: Self Employed				Type of Farmer: Managers			Type of Farmer: Self-employ. & Manager		
		Total	Resident	Non-Resident		Total	Resident	Non-Resid.	Total	Resident	Non-Resid.
		%	%	%							
Total	449,650 100	448,350 100	288,804 64	159,546 36		1,098	588	510	202	108	94
Wet padi	132,276 100	132,116 100	66,954 51	65,162 49		160	60	100	0	0	0
Vegetable Gardens	4,040 100	4,040 100	1,160 29	2,880 71		0	0	0	0	0	0
Other Temp. Crops	9,954 100	9,934 100	3,526 35	6,408 65		20	20	0	0	0	0
Rubber	90,886 100	90,380 100	43,900 48	46,480 51		388	110	278	118	48	70
Coconut	28,676 100	28,466 100	23,090 80	5,376 19		208	160	48	2	2	0
Fruit/ Kampong	49,812 100	49,648 100	41,006 82	8,642 18		162	122	40	2	2	0
Mixed	134,006 100	133,766 100	109,168 82	24,598 18		160	116	44	80	56	24

when computed in terms of percentages this group embraces 99.7 per cent of the total number of farmers; but it should be noted that of these 445,350 farmers who belonged to this class only 283,804 or 64 per cent of them are resident in the farm itself, that is to say he lives on his own farm or in any part of the farm land in which he cultivates. The other 161,546 or 36 per cent of the farmers are non-resident farmers.

Coconut, fruit/kampong, vegetable gardens and mixed farms seem to have a great proportion of their operators residing in the farm itself. As for rubber and wet padi farms there are only around 50 per cent of them who are resident on their farms, as illustrated in Table 4.8.

The second distinct group of farmers are those who belong to the managerial group. Here there were enumerated 1,093 farmers. These were those who were hired to work for someone else either as managers or as agents or on a bonus commission or on a salary basis. Of this group only 58 of them were resident farmers while the remaining 510 were non-resident. It may also be noted that the cash crop farms of rubber and coconut recorded the greatest number of hired managers namely 384 and 208 respectively. Thus the vegetable garden farms, reported that all 100 per cent of its farmers are of the self-employed group. Temporary crops reported a very small number of farmers (20 of them) who belonged to this managerial group and all these 20 were resident on the farm itself.

Finally there are those farmers who were both their own "boss" and could also find time to act as managers on other farms as well. The Census classified this "mixed" group under the heading of "self-employed and managers' section. All in all there were reported only 2[illegible] farmers who were working in their own farms and who in addition were either employed in other farms as labourers; or that they were landlords cultivating part of the land they own and renting the remaining part out to a tenant farmer; or they may even be managers or agents for someone else. In this category, of the [illegible] farmers reported only 94 were not resident farmers.

Rubber farms reported the largest number of farmers of this type, a figure of 111. On the contrary wet padi, vegetable gardens and other temporary crops reported a zero balance; while the coconut and fruit/kampong farms both reported only 2 farmers in this category.

The remaining 80 farmers of the total 20[illegible] farmers of this type were reported to be found in mixed farms.

[illegible] the highest number of farmers found in the classifications of "managers" and "managers and self-employed" were found under rubber cultivation. This could be due to the nature of the crop which generally leaves the farmer with a relatively great amount of spare time to engage himself with other activities in the form of gaining some extra side income. Rubber farms take seven years to mature and during the growth period there is little need for supervision when compared to say vegetable farms where there is a constant need to keep a look-out for pests.

I. [illegible]

In urban areas especially industrial towns it is very usual to find that every person has only one occupation e.g. an executive, or a tailor, or a barber. In agriculture however the scene is very much different. It is characteristic here to find that most farmers have more than one occupation. They are usually not fully engaged in their own farms. In Table 6.[illegible] only 106,55[illegible] farmers are fully occupied by their own farming activities i.e. he has only one occupation. This represents only [illegible] per cent of the total number of farmers; the other 50 per cent of them during the course of the year may take up some sort of other work besides their daily routine of running their own farms.

These other jobs or occupations which a farmer can indulge in besides running his farm are classified under three major headings, namely:-

a) those who are working on their own farms and on other farms or estates

b) those who are working on their own farms and on other jobs outside the farm (non-farm jobs)

c) those who are working on their own farms, on other farms and on other non-farm jobs

Table 4.3 **Occupation of Farmers and of Farm Household Members**

Type of Farm	Farmer (100%) ONLY	%	No. of Farmers doing work on own farms and: On other Farms or Estates	%	Non Farm Jobs	%	On other Farms & Non-Farm Jobs	%	Household Members (100%) ONLY	%	doing work on their own farms and: On other Farms or Estates	%	Non Farm Jobs	%	On other Farms & Non Farm Jobs	%
Federation	108,552	44	5[illegible],778	11	178,982	40	23,010	5	158,884	35	58,870	13	182,288	42	43,880	10
Wet Padi	58,272	43	16,312	13	50,802	38	8,2[illegible]	6	48,014	37	117,878	14	52,432	38	1[illegible].152	1[illegible]
Vegetable Gardens	2,380	58	260	7	1,220	30	180	5	1,580	38	388	8	1,066	41	486	11
Other Temporary Crops	4,182	42	820	8	4,328	44	528	5	2,732	28	1,048	10	5,116	54	1,086	11
Rubber	45,388	5[illegible]	9,760	11	31,768	35	3,080	4	34,708	38	12,386	14	35,428	38	3,306	8
Coconut	9,852	34	3,748	13	13,862	48	1,434	5	7,148	25	4,288	15	14,888	51	2,582	8
Fruit/Kampong	12,338	25	6,918	14	27,384	55	3,228	6	8,888	17	6,834	14	27,888	54	3,414	13
Mixed	88,182	49	12,282	9	60,270	37	8,282	5	58,366	40	14,070	10	55,020	41	11,380	8

Tab e 4. may be divided into the occupation of the farmer (4 ,65 of them) and the members of their household.

The type and amount of "side-work" indulged in will of course naturally vary with the physical capacity of each individual but more important is that it will be to a greater extent dependent on the type of crop grown and the size of the farm the farmer is administering.

Thus for example for the two prominent crops of wet paddi and rubber the labour requirements are very distinct, and as such only 43 per cent of paddi farmers, and 80 per cent of rubber farmers are fully occupied with their farms alone, and not reporting having any other occupation. This is because for single-crop paddi cultivation the periods of ploughing, transplanting and harvesting usually occupies only about 30 - 40 days during which the farmer and his family will have to work very hard, but once this annual manual working days are over, he will be relatively very free. This is because during the period when the plants are growing, the only physical work required would be weeding and general supervision of the field from pest and water control, and this will leave the farmer with surplus time to earn a little extra income through indulgence in other occupations.

In the case of rubber farms, the daily processes of tapping, collection and coagulation of latex will usually be over well before midday. Also when a farm has just been planted with rubber trees the maturing period is a full average of seven years during which the farmer has just to keep an overall general supervision of his farm which might only occupy his spare time at most. Thus here again the farmer is left with numerous opportunities to take up other occupations as a source to raise his standard of living, especially if he is in the self-employed category.

A peculiar point arising from the table seems to be that when any farmer wishes to take up a "side" occupation, there seems to be a natural preference to indulge in non-farm jobs. About 40 per cent of the farmers i.e. 178,500 take up non-farm jobs as against only 11 per cent or 5 ,778 take up other farm jobs. This may be attributed to the fact of the suitability of non-farm jobs. These jobs for example could be basket-weaving or carpentary which he can do at his leisure. Most probably he receives an order to make something, and this will occupy him on and off during

whatever free time he can find; and when the job is over
he sells it or sends it to the contractor, or agent, or
directly to the consumer as the case may be.

There is generally a higher percentage of farmers
who are solely occupied with vegetable gardening. The
census reported that 5[illegible] per cent of the farmers are fully
occupied with their own vegetable gardens. This may again
be attributed to the nature of the crop grown - as this
type of farming requires quite a lot of constant physical
labour impact. As for the case of mixed farms the high
percentage here may be due to the fact that since a great
variety of crops are grown, there is a constant rotation
of planting, growing to maturity and harvesting and as such
the farmer is again constantly kept busy with only one
occupation.

Finally it can be seen that a meagre handful of
farmers have enough time or energy to indulge in three
occupations at one time namely working on their own farms,
working on other farms and also at the same time working
on some non-farm jobs.

Looking over to the right side of the Table
tabulated for the household members of the farms it can
be seen that a similar pattern of occupation also exists
except that the percentage of farm household members
indulging in other farm jobs and non-farm jobs show an
average of 10 per cent which is nearly twice as high as that
of the farmers. This may be due to the inflation caused
by very large households whose labour force is only fully
utilized during the peak periods and who are or may even
be completely free during the growing seasons.

This has led many economists to expound on the
amount of disguised unemployment or underemployment in
farms. This is illustrated in the table 4.[illegible] where
the number of household members solely engaged in their
own farm work only is 100,[illegible] or [illegible]6 per cent of the
Federation total as contrasted with the [illegible] farmers
group whose figure was reported as [illegible]4 per cent.

V. <u>Livelihood of Farmers</u>

The Farmers' major requirements of food and cloth-
ing together with those of his household members may be
derived from the products of his farm which he can either
use for food purposes or sells for cash; or his requirements
can be met from the earnings he makes in other jobs which
he may undertake. He may for example be working as a labourer

in an estate or with the Public Works Department. In the Census gifts and payments received from the farmer's children and relatives or from the State or incomes from any other sources are included under this group of "Earnings from other jobs". This partly accounts for the high number of farmers (10,06) who reported that they were getting their livelihood from other jobs when they were only doing jobs in their own farms. As such the criterion of livelihood may or may not coincide with the occupation in which the farmer spends most of his time.

Table 4. . shows sex and livelihood of farmers in the Federation by States. It also shows where the farmer derives his livelihood from:

a) their own farms or
b) from other jobs.

A small but significant group of those who do not know or remember their source of livelihood are tabulated in another column un er unknown

Table 4.4. **Distribution of Size and Livelihood of Farmers by State**

STATE	MALES							FEMALES						
	TOTAL		No. of farmers getting their living from					TOTAL		No. of farmers getting their living from				
			Own Farms		Other Jobs		Unknown			Own Farms		Other Jobs		Unknown
Malaya	304,890	100	201,872	51	100,816	47	7,082	2	56,000	100	31,404	57	21,040	40	1,076	3
Johore	53,228	100	28,738	41	28,704	57	786	2	5,000	100	3,000	51	2,700	46	100	3
Kedah	76,012	100	48,388	64	25,788	34	1,824	2	7,522	100	5,148	68	2,204	28	170	3
Kelantan	62,638	100	28,588	47	32,218	52	818	1	7,788	100	2,878	37	4,726	61	202	2
Malacca	15,010	100	4,368	29	8,874	66	788	5	2,348	100	1,888	31	2,144	62	306	8
Negri Sembilan	18,188	100	8,734	46	9,832	52	442	2	4,888	100	3,678	88	1,482	31	128	3
Pahang	24,322	100	12,536	56	10,154	42	882	2	3,878	100	2,588	70	1,048	28	82	2
Penang	17,362	100	10,188	58	7,174	41	200	1	2,124	100	1,414	67	684	32	102	4
Perak	61,788	100	25,982	41	34,712	56	1,894	3	10,838	100	6,182	57	4,374	40	282	3
Perlis	11,488	100	9,488	83	1,858	16	188	1	1,142	100	1,022	89	188	9	28	2
Selangor	28,738	100	18,814	61	10,838	37	748	2	4,288	100	3,048	71	1,148	27	182	2
Trengganu	26,828	100	13,582	50	12,314	48	118	1	3,382	100	2,838	88	1,322	38	28	1

Except for the state of Perlis, the percentage of farmers getting their livelihood from their own farms alone are generally very low. Thus for the Federation as a whole, 51 per cent of the male farmers and 7 per cent of the female farmers get their livelihood from their own farms alone. As for Perlis of the total 12,650 farmers reported 10,518 or 86 per cent of the farmers only source of livelihood came from their own farms.

Under the "unknown" category, there seems to be an outstanding high figure for the State of Malacca. In this State 5 per cent of the male farmers and 9 per cent of the female farmers reported that they did not know their exact source of livelihood. But on the whole for the Federation there was only a very small percentage of farmers (3,533 or only 2½ per cent) who were unable to trace their source of livelihood. Furthermore this "unknown" phenomenon seems to be very much higher for the female farmers. Thus for example of the female farmers Malacca reported 9 per cent, Penang and Province Wellesley 4 per cent, Johore, Kedah, Negri Sembilan and Perak all 3 per cent in the unknown category. Against these figures on the male side respectively for each of these states only 2, 1½, 1, 1 and ½ reported under the same section. At no time in any state was the percentage for the "unknown" category for males higher than that of females. Whether this could be traced to the nature of women or to their non-cooperation for one reason or another (e.g. to evade tax or the like) is debatable. However it could also be possible that these percentage figures are inflated upwards due to the small denominators i.e. the small number of female farmers relative to that of the males.

Finally it could also be seen that the number of unknown cases for all the West Coast States are generally higher than those of East Coast states maybe attributable to the fact that for the West Coast farmers, their source of livelihood may be so complex and diversified that they are all confused.

VI. Economically Active Household Members in Farms

In discussing the economically active members of the farms we shall include the farmer as a member of the household. The definition of household has been made at the beginning of this chapter but it may be added now that though a farmer, and his wife and their unmarried children with one or two labourers and lodger who normally live and eat together are considered as one household, a married son and his wife doing their own cooking separately would form a detached household in the same house.

Table 4.5 thus gives information on the total number of household members reported in the farms; the total number who are economically active and the occupation in which these household members indulge in.

Data on economically active household member, however only relates to those whose ages are 15 plus but there was no maximum age limit imposed. These people 1,27?,5?? of them furnish the supply of labour as either unpaid family workers working in their own farms or employed for cash/kind in the other farms or in some other non-agricultural jobs. As there was no minimum period of time or amount of work required for inclusion of individuals under these sections, it is possible that the same worker may report work under all the categories, viz working on own farm; other farms and elsewhere. As a result in this kind of indiscrete tabulation the total persons working on their own farms, on other farms (estates) and in any non-agricultural employment will always exceed the total number of persons reported as economically active.

Looking at table 4.5 it will be found that slightly less than half of the total number of household members in the farms - 1,063,576 out of 1,27?,5?? are economically active. This means that the dependency problem here is very great, in the ratio of 1:1. Furthermore, still on this point it may be noted that of those reported economically active household members only 5? per cent of them consist of male labour. In addition if the fact of disguised employment is present in the farms (as it most probably is), then it may justify the poor economic condition of low income, poverty and low productivity of which economists in Kenya are all concerned about. As such the dependency ratio of 1:1 is even itself a very much inflated value as it has been explained that even if we were to remove a substantial amount of the labour supply from the farms the output from will be constant. Further aggravation of the condition may be seen if we take into consideration that the system of fragmentation is quite high in many parts of the result of such traditional practices. Not only the economies of scale are absent but also the fact of the absence of initiative on these farms due to various reasons like exploitation, tenure status, no security etc which the rural economist is familiar.

Though in some cases the female household members (economically active) outnumber the corresponding

4.3. Total Household Members reported to Farms and Numbers Engaged in Agricultural and Non-Agricultural Employment by State

STATE	Total Household Member	Economically Active						Total Persons in Agricultural Employment		Non-agri-cultural Emp.
		Total Persons		Males		Females		On own Farm	On other Farms	Total Persons
Malaya	2,273,522	1,068,976	100	575,416	54	493,160	46	972,880	161,770	362,074
Johore	331,160	141,744	100	80,396	57	61,348	43	120,840	27,766	49,268
Kedah	407,266	193,824	100	105,114	54	88,710	46	182,472	29,184	47,056
Kelantan	305,858	164,308	100	83,686	51	80,622	49	154,230	31,038	95,218
Malacca	104,978	43,428	100	23,392	54	20,036	46	35,840	6,702	18,828
Negri Sembilan	119,802	55,228	100	27,494	50	27,734	50	49,722	6,946	14,884
Pahang	126,636	63,286	100	33,448	53	29,838	47	39,490	5,678	14,458
Penang	105,490	48,140	100	27,006	56	21,134	44	43,942	4,728	13,170
Perak	390,190	174,938	100	93,718	54	81,220	46	157,270	26,718	56,914
Perlis	59,600	32,476	100	17,124	53	15,352	47	31,542	2,262	8,420
Selangor	192,878	87,176	100	49,716	57	37,460	43	77,742	15,312	18,526
Trengganu	130,104	64,028	100	34,322	54	29,706	46	60,170	4,836	25,332

number of male members the balance is prettty even averaging to around 54 males to 46 females except in the state of Negri Sembilan where there is a clear 50 percent of each sex. However it should be rather interesting if an analysis on the economically active household members were to be cross-classified according to the age of the farmer. This however is not done in the Census, otherwise it may reveal further on the nature of the dependency problem, for if there were reported a great number of old-age farmers or household members then though they may be classified as economically active it would be probable to conclude that because of their age their contribution to the output of the farm is considerably reduced.

Anyway from the table it may be noted that of a total of 1,496,724 only 362,074 or around 24 per cent of the total number of household members were engaged in non-agricultural employment. These figures however are not very good criterion for judgement for reasons enumerated above viz that there was no minimum period of time or amount of work required for inclusion of individuals and as such the number of household members figure was inflated by 4 8,148 bringing up the number to 1,496,724.

B - NON-FAMILY FARM LABOUR

VII. Components of Non-family Labour

On the farm, together with the farmer and his household members, there is yet one other type of labour to be found. This source of supply comes from labourers who are employed in the farms and are thus similar in nature to the employee category of the 1957 Census of Population. Since they are made up of persons from outside the farm they are generally referred to as non-family labour.

There are however five major components to the type of labour force namely Permanent jobs, Regular jobs, Occupational jobs, Exchange jobs and Contract jobs. As there are bound to be some overlapping of these various classes the census had to adopt certain precise definitions to differentiate each of these five groups of labour.

(a) Permanent Jobs was thus defined as those who do the same work every working day during 10, 11 or 12 months of the year. Such labourers are either paid in cash with meals provided or paid in kin usually

on a crop sharing or begi due system. Here the information was collected on the total number of people he were employed and at the same time these totals were classified as to whether the individuals were paid in cash or that they were paid in kind (including any of the many variaties of crop-sharing)

(b) Regular Jobs: referred to those labourers who were employed on the basis of working for a few days only at any one period of employment, but due to the nature of the crop, these periods of employment are at a very regular intervals of either every month, 2 or 3 or 4 months of the year as the case maybe. Thus for example for the harvesting of coconuts these labourers are employed in intervals of every two months throughout the year. As long as the sequence is there, the length of each employment period is quite immaterial in order to qualify to be included under this class of labour. Data on this type of labour was recorded to give the information on the number of persons employed as well as the amount of work performed by him. The amount of work performed was recorded in terms of tens of mandays. One man/day was defined as the average amount of work that can be completed in one day by one labourer.

(c) Occasional Jobs: This third type of non-family labour referred to those labourers who are employed to work once or twice a year say for example during the padi harvesting seasons or maybe during the ploughing seasons; or digging pitches in the coconut farms etc. Here the amount of work done is again expressed in tens of mandays only that there is a very serious problem of calculation which is very much more complicating than in the case of the more regular jobs This is because the information here is dependent on the memory of the farmer and at times this may prove to be a very subjective matter. Then there is also the problem of memory failure as to how many "mandays" he had employed. As such the Census enumerators did the reckoning of the mandays themselves through some manipulations from the data collected. All the farmers gave was how many men had he employed and then the number of days the men had worked on each job. This thus was an attempt to minimized the extent of the errors which were especially due to the memory failure on the part of the farmer.

(d) The fourth type of non-family labour was classified under Labourers in Exchange Job. This group is relatively smaller than the other groups and it usually referred to the small farmers and their house-hold members who worked in the other farms on an exchange

basis during certain busy seasons of the year such as during the harvesting or transplanting periods. Also this practice is indulged by small farms which rely so heavily on family labour that during peak demands for labour, the supply can only be met by exchanging labourers on a sort of a rotation basis which was usually evolved through co-operation among the farmers and his household. One unique feature in this type of labour however is that in almost all the cases these exchange labourers do not receive any wages in cash or in kind and as such it has often been referred to in the rural sector as "gotong royong". Here information was obtained and tabulated according to the number of people who called to work at the farm; and then the number of days they had worked on such exchange basis, and from these data the amount of mandays was thus computed.

(e) The last type of non-family labour in the "Contract Job". This is a distinct group of itself in the sense that those employed do not have any direct dealings with the farmers. This is because the farmer is not the employer of these labourers directly as he is with the other cases discussed. At some earlier phase of time the farmer had agreed to pay a certain contractor a definite sum of money to have a certain amount of work done on his farm. After that contract has been agreed upon it is the contractors entire responsibility to fulfill his contract in his own way; as such the farmer does not care (as so does not know usually) how many labourers were used by the contractor, or how much he paid each of these labourers. Since it was impossible to expect the farmer to supply information on the number of workers working under this contract system, an alternate approach was adopted whereby information was obtained on the amount of money which the farmer had spent on this type of labour. This total sum spent on such jobs could thus be supplied by the farmer directly.

VIII. Employment of Non-Family Labour in Farms

In Table 4.6. the number of people employed in the farms according to the 5 classes of labour discussed in paragraph VII are tabulated according to the type of farms. All in all 88,734 persons were employed as permanent farms.

4.6. **Pattern of Employment on Farms during the year by Type of Farms**

Type of Farm	Permanent Jobs					Regular Jobs		Occasional Exchange Jobs		Contract Jobs
	Persons			No Paid in Kind or Bagi Duo	No Paid in Cash	No. of Persons	Tons of Mandays	Tons of	Mandays	Tons of $
	Total	Males	Females							
Total	88,724	62,618	26,106	76,240	12,484	27,718	45,368	446,748	264,418	1,098,744
Wet Padi	334	308	36	338	6	1,420	1,958	276,292	167,858	291,986
Vegetable Garden	0	0	0	0	0	0	0	260	100	220
Other Temp. Crops	50	40	10	50	0	0	0	3,962	984	28,696
Rubber	57,840	40,368	17,472	47,482	10,358	1,680	2,132	63,378	10704	439,222
Coconut	600	496	104	388	212	16,728	28,436	7,366	2,084	47,896
Fruit/ Kampong	614	322	292	488	126	162	346	6,032	1,930	20,756
Mixed	29,276	21,084	8,192	27,494	1,782	7,728	12,696	109,238	80,738	269,968

workers, 27,718 in regular jobs, while occasional jobs recorded 446,748 tens of mandays, exchange jobs 64,418 tens of mandays and contract jobs cost 1,008,744 tens of dollars.

In the permanent jobs section of the 88,734 persons employed 62,628 were males and 26,106 were females Again of the total 76,240 were paid in kind and only 12,484 were paid in cash. In padi cultivation, there were only a small number of permanent workers employed namely 334 people. This crop depended more on the occasional and exchange workers as it is seasonal in nature. Rubber as expected depended a lot on permanent labourers as the tapping of the trees and coagulation of the latex necessitates constant and regular work. Vegetable gardening on the contrary did not report the employment of any permanent workers or regular workers. Most of the work here is done by occasional workers, exchange workers and a very limited amount of contract workers. This may be due to that vegetable gardening is usually a side occupation and as such the family labour provides an adequate source of labour without having to resort to employment of any non-family labour.

The coconut farms again as expected depended quite heavily on regular workers who are employed in quite regular intervals according to the time of ripening of the nuts of the trees.

However on the whole it might be said that on these smallholdings, money is not used to a great extent as most of the permanent workers are not paid in cash but in kind; and also there is a large proportion of work done on the exchange systems where the exchange labourers are again not paid in cash but rotate around the area on a predetermined co-operative system. These two kinds of jobs accounted for the greater proportion of the total amount of non-family labour that was employed in the farming operations

CHAPTER FIVE

FARM PRODUCTS

Malaya is a predominantly agricultural country and the agricultural output has been estimated to form about 40 per cent of the value of the Gross National Product. However the composition of this output is of a very diversified nature; but 3 main crops together make up 83 per cent of the total farm output namely rubber, coconut and padi. These and the other farm products may be classified either into temporary crops or permanent crops.

Temporary crops were those crops which generally occupy the land for less than one year and are destroyed by harvesting, as such replanting is necessary for the next crop. Examples of these are padi, maize, groundnuts etc.

Permanent crops on the other hand were those crops which occupy the land for long periods of time and which do not require replanting after each harvest. Such crops for example are rubber, coconuts, fruit trees and the like.

In the Census however livestock, fish and wood products were also included as part of the agricultural activities. These will thus be included into this chapter.

As rubber and coconuts (both permanent crops) and padi (a temporary crop) are of great importance to the Malayan economy, these crops shall be separately discussed. Thus for example in Table 5.1 where the statistical utilization of farm land is tabulated by States, it can be seen that of the total 2,100,200 acres of cultivated land in Malaya 31 per cent of it is under padi cultivation, 44 per cent under rubber; 9 per cent under coconut; 14 per cent under the various fruit crops and 6 per cent or 132,305 acres remained uncultivated.

Table 5.1 **Detailed land Utilization of Farms by Area and State**

STATE	Farms: Total Area	Total Area	CULTIVATED LAND												Other Land Area	
			Temporary Crops		Vegetable Gardens		Others		Permanent Crops: Rubber		Coconut		Fruit/ Kampung			
			Net Field	%		%		%		%		%		%		%
Malaya	2,228,475	2,100,200	868,422	31	8,662	0	42,835	2	831,104	44	188,798	9	288,877	14	138,206	6
Johore	388,688	347,101	8,401	2	678	0	1,988	1	228,486	66	74,342	21	34,284	10	18,585	5
Kedah	488,636	453,185	248,865	54	885	0	8,158	2	141,886	31	2,587	1	56,187	12	16,481	4
Kelantan	282,338	285,211	98,582	37	847	0	4,543	2	102,838	38	8,886	3	58,315	18	27,125	8
Malacca	70,030	68,191	16,488	24	588	1	388	1	35,387	52	4,847	8	11,142	16	1,838	3
Negri Sembilan	101,555	96,474	28,887	21	211	0	1,488	1	54,988	57	888	1	18,882	28	5,881	5
Pahang	182,818	188,813	48,874	18	1,185	1	2,235	1	183,584	65	5,418	3	18,425	12	22,285	12
Penang	82,388	76,138	32,741	43	338	1	748	1	24,385	32	8,443	11	9,282	12	8,238	8
Perak	321,518	388,833	83,118	27	2,588	1	13,281	4	138,828	46	28,184	18	37,118	12	15,477	5
Perlis	63,833	57,242	43,888	75	25	0	824	2	5,222	8	228	8	8,828	14	8,411	18
Selangor	152,531	144,585	37,328	28	1,184	1	1,886	1	48,854	34	38,252	27	16,188	11	7,846	5
Trengganu	135,372	125,427	38,288	28	358	0	7,788	6	45,228	38	7,818	6	28,814	23	8,845	7

All in all 33 per cent were under temporary crop cultivation of which padi is the most important component and 67 per cent were under permanent crops of which rubber and coconuts were of greatest significance.

1. Rubber

Table 5.2 shows the number of farms reporting various types of rubber land and the tapping thereof by state. In the Federation 178,39 farms reported rubber land of which 119,000 or 68 per cent of them were at the same time being tapped. Here rubberland refers to any land of 1 acre or more in area which was planted with rubber trees whether mature or immature. This thus included land leased out by the owner for tapping as well as rubber land interplanted with vegetables or other crops.

In the Federation there were 3 major types of rubberland namely old prewar rubber reported in 105,246 farms, replanted post war rubber reported in 49,288 farms and new planted post war rubber reported in 67,246 farms. However, not all these rubber land were being tapped as yet for there were reported in the Census some areas which were occupied by immature trees. Thus for the first group 98 per cent of the reported number of farms were under tapping; while only 15 per cent of the second group and 24 per cent of the last group were reported to be tapped.

Rubber land in the first place was classified in such a manner because the Japanese war was thought to be the most convenient demarcation sufficiently memorable to the census respondents throughout Malaya. Thus the majority of the 98 per cent of the farms reporting old pre war rubber land was reported to be under tapping as expected, as most of these trees are already mature since rubber takes an average of seven years to reach maturity.

Table 5.2 **Distribution of Various Types of Rubberland and Tapping thereof by State**

STATE	All Rubberland			Old Proper Rubber			Replanted (proper) Rubberland				Unreplanted (proper) Rubberland			
		of which in tapping		Any	of which in tapping		Any	of which in tapping			Any	of which in tapping		
	All (1)	No.2	(2) as % of (1)	No.3	(3) as % of (1)	No.	%	No.4	(4) as % of (1)	No.	%	No.5	(5) as % of (1)	No.	%
Malaya	175,382	118,030	68	106,246	60	102,002	96	40,238	23	6,178	15	67,206	38	15,876	24
Johore	36,486	27,258	75	23,788	65	23,370	98	6,472	23	1,208	14	12,688	35	4,262	34
Kedah	24,256	13,780	57	9,744	40	9,606	98	2,874	12	358	12	14,528	60	4,804	32
Kelantan	26,116	17,270	66	15,184	58	15,032	99	5,788	22	1,004	17	11,328	44	2,804	18
Malacca	7,824	4,332	55	4,004	51	3,514	88	4,382	56	840	21	1,014	13	154	15
Negri Sembilan	11,988	8,274	69	8,128	68	7,838	96	3,858	32	568	14	2,268	20	222	9
Pahang	18,420	9,654	52	7,540	40	7,284	98	1,228	8	218	18	11,474	78	2,884	23
Penang	3,154	2,868	89	2,736	87	2,706	99	874	31	180	20	186	5	8	4
Perak	28,380	22,244	78	21,888	76	21,388	98	8,438	28	1,118	13	5,434	18	558	9
Perlis	1,540	870	56	782	51	782	97	88	5	4	5	838	54	112	13
Selangor	9,848	7,488	76	7,144	73	6,884	97	2,882	28	528	28	1,486	15	284	20
Trengganu	8,328	4,250	58	4,568	56	4,508	98	1,182	13	88	8	4,886	58	586	13

Rubber land planted after the Japanese war was classified as "replanted (post war)" if it was grown on land previously planted with rubber, or as "newplanted (post war)" if it was planted on land which had previously been under another crop or under no crop at all. The table shows that 61 per cent of all the rubber land or 107,504 farms were reported to be under these two categories. These two groups however showed a very low percentage of farms to be under tapping conditions - in the replanted (post war) farms only 15 per cent were under tapping while in the new planted (post war) farms only 24 per cent were under tapping. These post-war rubber farms were also reported to be using various types of planting materials namely ordinary seedlings, clonal seedlings and budgrafts

Generally clonal seedlings are those rubber trees raised from selected high yielding clonal seeds, whilst budgrafted rubber are those rubber trees (usually of ordinary seedling parentage) which are topbudded with selected high yielding budwood material, and ordinary seedlings are the rubber trees of variable yielding ability from unknown parent material, which require budgrafting with selected budwood at one or two years old, if they are to become high yielding

However the post war replanted and new planted rubber land are still a new feature in the scene of smallholding rubber farms. This, as can be seen in the table, is so as every State in the Federation reported at least 50 per cent of its rubber farms to be under the old pre-war rubber category. Only Pahang showed a slightly smaller figure that of 46 per cent of its rubber farms to be under this pre-war section. On the other hand Penang, Perak and Selangor all showed percentages as high as 87 per cent of farms to be under this category. This could be due to the fact that the farms in Pahang have just been opened and developed since the Japanese war.

Table 5.3. **Production of Rubber by Area and State**

	Annual Production (Piculs, Dry Weight)									
	Total		Wet Sheet		Sundried Sheet		Smoked Sheet		Latex	
Malaya	1,831,843	100	88,883	3	1,288,843	83	183,511	12	31,486	2
Johore	302,404	100	3,612	1	288,888	91	14,738	4	17,225	4
Kedah	213,371	100	8,825	5	180,987	85	20,286	9	2,163	1
Kelantan	168,404	100	13,843	8	153,288	91	1,258	1	0	0
Malacca	47,560	100	2,460	5	43,083	91	1,856	4	163	0
Negri Sembilan	98,078	100	1,677	2	71,512	73	20,870	21	4,028	4
Pahang	130,537	100	2,880	2	102,254	78	75,083	20	0	0
Penang	52,301	100	88	0	44,881	86	6,882	13	428	1
Perak	268,048	100	6,888	3	228,778	86	28,386	11	102	0
Perlis	7,381	100	188	2	7,283	96	138	2	0	0
Selangor	80,421	100	3,228	4	38,588	36	40,358	56	7,286	8
Trengganu	64,808	100	6,321	10	45,338	70	13,148	20	0	0

Table 5.3 (contd) **Production of Rubber by Area and State**

STATE	Planted Area (in Acres)								Tapped Area (in Acres)							
	Total		Old Proper Rubberland		Replanted Rubberland		Unreplanted Rubberland		Total		Old Proper Rubberland		Replanted Rubberland		Unreplanted Rubberland	
		%		%		%		%		%		%		%		%
Malaya	831,104	100	488,030	48	148,885	18	321,295	35	488,137	100	422,748	86	18,288	4	47,078	9
Johore	228,486	100	134,853	59	34,411	15	60,222	26	146,375	100	128,728	88	4,277	3	13,370	9
Kedah	141,008	100	47,854	34	12,518	9	80,943	57	68,781	100	44,528	73	1,386	2	14,868	25
Kelantan	102,858	100	38,447	38	18,848	18	47,121	46	44,881	100	37,383	85	1,888	4	4,828	11
Malacca	35,897	100	14,422	41	17,424	48	3,751	10	15,274	100	12,212	80	2,888	17	453	3
Negri Sembilan	54,286	100	32,138	58	14,888	27	8,287	15	32,385	100	29,358	90	2,481	8	586	2
Pahang	103,504	100	30,998	29	4,748	5	68,167	66	38,284	100	28,888	75	446	1	8,888	24
Penang	24,585	100	18,534	75	5,212	21	838	4	18,288	100	17,818	83	1,225	7	24	8
Perak	138,828	100	88,483	63	28,344	21	22,881	16	88,223	100	83,822	85	3,841	3	1,388	2
Perlis	5,222	100	1,842	37	277	5	3,818	58	2,856	100	1,787	87	13	1	255	12
Selangor	48,854	100	33,884	68	18,282	21	4,978	10	34,388	100	31,887	92	1,812	6	788	2
Trengganu	45,228	100	18,373	41	4,877	11	21,878	48	18,842	100	17,388	91	131	1	1,882	8

Table 5.3. shows the production and area under rubber land by States. The area under rubber land in this table the number of farms reporting the three various types of rubber land. This thus will give a clearer indication of the extent these three types of rubber land are found in the farms and also shows the results of the drive for replanting newplanting rubber land on small-holdings. This replanting scheme was started by the Government to persuade and advice the smallholders. to replant their lands with new high-yielding scientific rubber trees in order to increase the production of rubber to meet with the stiff foreign competition especially that from the direction of synthetic rubber.

Thus from the table, 69 per cent of the total acreage of 931,104 acres were reported under old premar rubber. And of this total 49 ,1 7 acres were being tapped mostly from the old pre-war rubber land section. Thus even though 16 per cent of the total planted area was under replanted rubber land and 15 per cent under new-planted rubber land making a total of 31 per cent of the total area under rubber land, the majority of this significant proportion was not being tapped due to the immaturity of the trees.

Table 5.3 also shows the quantity of rubber produced by the various farms. The weights here refer to the dry rubber content and information is tabulated according to the condition of the rubber when offered for sale in the market. A farmer thus markets his rubber produce either as wet coagulated sheet rubber or sundried sheet, or smoked sheet or as liquid latex. Of course some farms may sell more than one type of rubber.

In the Federation a total of 1,5 1,6 3 piculs of rubber was produced, of which 5 ,6 piculs were in form of wet sheet; 1,26 ,94 piculs were in form of sundried sheet; 18 ,31 piculs in form of smoked sheet and 31,496 piculs in form of latex. Thus most of the production was marketed in form of sundried sheets which made up 83 per cent of the total production of rubber. Smoked sheets are also quite popular as they accounted for 12 per cent while latex accounted for 3 per cent and wet sheets the remaining 3 per cent of the total production. However it must be remembered here that farms which may have the whole of their areas reported as under mature trees but which nevertheless were not in tapping but were leased out by the farmer for various reasons are excluded from the figures just mentioned. This has been done

because the farmer here is not in control of either the tapping of the rubber tree or in the sale of the rubber produced.

On the question of tapping labour the supply usually comes from the farmer and his household members only. But some farmers also reported employing other people either on a cash or bagi dua system. Also the labour might either be employed directly or indirectly through a contractor. Labourers paid in cash usually receive a fixed amount of money paid on the basis of a flat rate per tapping day independent of the quantity of rubber produced or he may be paid on a rate per kati of rubber tapped but usually independent of the price at which this rubber is to be sold. As regards the bagi dua system he may either receive half of the rubber or of the money proceeds from its sale. The amount of this source of non-family labour indulged in by the farmer will depend on the total area of mature rubber land the farmer possesses.

Tapping on these farms may either be done daily or on alternate days or even less frequently. Daily tapping here refers to tapping every tree on every possible day excluding rainy day and holidays.

Finally it has been estimated that of the 5½ million acres under rubber land, 2 millions are found in estates and 1½ million acres on smallholdings of under 100 acres but the majority of these holdings are clustered around the under 10 acres size group.

II. Coconuts

In the Malaya economy, following rubber and rice, coconut cultivation covers the next largest area that of 180,754 acres of land under smallholdings as seen in Table 5.4. Coconut cultivation is mainly a smallholders enterprise.

Table 5.4 **Distribution of Compact Consent Farms by State**

STATE	Total		Mature		Immature		Mature/ Immature		Logging Area
	No	Area(ACS)	No	Area(ACS)	No	Area(ACS)	No	Area(ACS)	Area (ACS)
Malaya	34,422	180,794	38,814	117,139	16,396	35,920	8,402	27,699	5,249
Johore	15,940	74,342	9,708	41,317	6,466	17,983	3,432	15,322	1,878
Kedah	1,528	2,597	1,196	2,088	68	280	306	233	96
Kelantan	5,654	8,506	4,918	7,211	490	419	728	876	197
Malacca	2,294	4,087	1,928	3,325	402	512	284	290	1,020
Negri Sembilan	326	669	138	293	152	274	82	102	-
Pahang	2,574	5,410	1,362	2,793	1,280	2,094	344	523	26
Penang	3,284	8,443	2,556	5,209	664	1,672	628	1,562	113
Perak	7,256	30,104	5,364	19,095	2,018	4,912	1,364	6,097	862
Perlis	84	226	80	145	2	78	2	3	-
Selangor	11,454	39,352	9,314	32,032	2,940	5,970	626	1,730	996
Trengganu	4,028	7,018	2,252	3,631	1,954	2,606	406	781	58

Coconut can be found every where in the country but they are concentrated along the coastlines on both west and East coast of the peninsula. On the whole Selangor reported 39,382 acres, Johore 74,345 acres and Perak 30,104 acres of coconut cultivation. These three West Coast states reported the highest acreage as against the East Coast states of Pahang Kelantan or Trengganu This is because the area best suited for this crop is the heavy alluvial clay which is found extensively in the West Coast, whereas on the East they are grown along coastal sandy ridges of low fertility and as such not only the area in which this crop is grown is less but also the production tends to be less satisfactory

However, coconut cultivation can be either on a compact plantation (which is more important and this concentrated here) or in scattered palms. The compact plantation refers to areas of 1 acre or more of coconut palms planted in a compact stand and this includes those mature or immature coconut palms as well as those land which has been leased out by the farmer. On the other hand scattered palms are those palms that are not in compact plantations but are planted in the farms.

Of the total area under coconut farms 117,150 acres are reported under mature palms, 35,950 acres under immature and 27,600 under mature/immature or the mixed category. A mature area is one in which the mature palms predominate while an immature area is on the contrary. Mixed areas arise when both mature and immature palms are in about equal numbers probably due to interplanting in an old plantation. The last column of the table consisting of 5,245 acres of leased out land refers to the mature coconut land which the farmer leases out for the harvesting of the nuts for which he usually receives cash in advance.

III. Padi Cultivation

Padi is the staple food for Malays and is an entirely smallholders crop. It is next to rubber occupying a total acreage of 642,680 acres of land in the Federation. It is an important crop in smallholding agriculture as 31 per cent of the total cultivated land is under this crop which is found mainly in the States of Perlis, Kedah, province Wellesley, Kelantan and Trengganu.

Four types of padi are grown namely main crop padi, off season wet padi, lowland dry padi and upland dry padi. The difference between main crop wet padi and

off season wet padi is that sometimes the same land may be used for harvesting of padi twice within the same year (i.e. double - cropping). Thus if two crops of wet padi have been harvested successively within the same year from one acre of land, then one acre is recorded as main crop wet padi while the other against off season wet padi.

In the census, it was found that the main crop wet padi and the upland dry padi were the most popular and these were cultivated over 6[illegible],[illegible] acres of land and [illegible],7[illegible]9 acres respectively. Total production of these two types came to 207,[illegible], [illegible] gantangs, while the total production of all 4 types of padi only came up to [illegible],8[illegible],000 gantangs.

The off season wet padi offers very interesting data for a study of the extent of double cropping, which the Government is trying so hard to encourage in Malaya. In the Census only [illegible],1[illegible] farms reported off season wet padi covering an area of [illegible],76[illegible] acres of land and having a production figure of only [illegible],8[illegible] gantangs. But this practice shall be expected in the near future to extend to more farms, greater acreages and higher production as the farmers grow to be more conscious of the scientific methods of cultivating this important economic crop.

I. Other Temporary and Permanent Crops

The crops under discussion so far can be classified into either temporary or permanent crops. Thus for example rubber and coconut farms are of the latter type while padi is of the former. These 3 crops have been separately discussed first due to their great importance in Malayan agriculture.

Referring back to Table [illegible] on detailed land utilization of farms by States it will be noticed that there are 2,[illegible]8,475 acres of such farms of which 9[illegible] per cent are under cultivation of either temporary or permanent crops. Thus 31 per cent of this total acreage was under padi, 44 per cent under rubber and [illegible] per cent under coconuts.

The remaining small percentage composed of a great variety of crops, which were deemed important enough to be selected for enumeration. Thus 6 temporary crops were chosen namely tapioca (20,8[illegible] acres), groundnuts ([illegible],980 acres), maize (6,34[illegible] acres) sweet potatoes (1[illegible],08[illegible] acres). Tobacco (7,[illegible]1[illegible] acres) and other (1[illegible],[illegible] acres). The figures in brackets represent the total acreage planted

with the respective type of crop mentioned. In the "others" category were crops like chillies, cowpea, cabbage, chinese raddish, mustard, brinjals, cucumber, water melons, and miscellaneous vegetables.

Similarly as in the case of temporary crops, there were enumerated [illegible] varieties of the most important permanent crops besides rubber and coconut. However the majority of these were the different types of fruits which altogether formed as large as 1[illegible] per cent of all the total cultivated land in smallholding farms. The other permanent crops chosen which were not fruits were as follows: pepper, nutmeg, cloves, coffee, tea, gambier, sugar palm and sugar canes.

In the case of temporary crops however there was a possibility that the same piece of land could be used for harvesting several different crops within the same year. Also in the case of mixed farming the area actually occupied by each crop was estimated. This of course only applies to the crops which occupied more than [illegible] acre of land which was the minimum size required to qualify for coverage by the Census. Furthermore it was found that most of these temporary crops were not sold but were used for domestic consumption and harvested only when required by the housewives. As such production figures were hard to collect as the farmers were unlikely to remember the quantity produced of any of such a great variety of crops. Nevertheless this opportunity was not missed and production data was collected for each of these temporary crops though the information may not be very accurate.

On the other hand for permanent crops, coffee farms seem to be the most popular as the highest acreage was recorded viz 1[illegible],7[illegible]1 acres. This was followed by banana cultivation coming to 1[illegible],7[illegible] acres. But as mentioned fruits occupy most of the cultivated area where permanent crops are grown - 28[illegible],877 acres (this excludes rubber and coconuts).

__Livestock__

Farms owning different types of livestock according to number of heads by type of farm are seen in Table 5.5. Here buffaloes are tabulated in two types and cattle too. Thus of the 20[illegible],57[illegible] buffaloes a small proportion of 714 heads are the milk buffaloes of the [illegible] type curly-horn Indian type or also known as the [illegible] type which is reared for milk production. On the other hand

Table 5.9 **Different Types of Livestock (Number of Heads) by Type of Farm**

Type of Farms	Buffaloes		Cattle		Goats	Sheep	Pigs		Poultry
	Milk	Swamp	Milk	Other			All Pigs	Sows/Edits	
Total	714	204,164	8,148	169,344	214,178	99,108	231,124	56,336	6,824,592
Wet Padi	220	73,870	1,292	47,500	55,788	11,860	13,920	4,192	2,269,684
Vegetable Gardens	0	60	40	1,260	160	0	15,760	4,230	72,240
Other Temp Crops	0	1,140	40	1,428	2,520	520	34,262	6,694	200,108
Rubber	206	23,246	2,132	17,216	36,356	9,126	51,618	13,366	1,162,186
Coconut	0	1,606	1,220	4,266	23,238	1,804	36,496	7,204	433,444
Fruit/ Kampong	0	7,442	1,004	14,794	22,992	5,064	25,798	6,114	582,474
Mixed	288	96,800	2,420	82,920	73,124	30,734	53,270	14,996	2,101,456

the remaining 204,164 are the swamp buffaloes which are used for work especially in the padi fields, and some of these are also used for meat or draft purposes.

Similarly cattle is also divided into either milk or other cattle. Thus there are 8,1[illegible] heads of milk cattle reported. These are primarily of the Indian type raised for milk with the surplus males being slaughtered for meat. The "other" 16[illegible],3[illegible]4 cattle are reared mainly for meat or draught purposes and hence their milk producing capacity is very limited.

Pigs Statistics are also gathered for two types namely all pigs which came up to [illegible] and sow[illegible] which came to 56,356 heads. As for poultry the stock or figure reported at 6,82[illegible],59[illegible] was restricted to stock of over 2 months since at this age they have survived or had been inoculated against the major epidemic. The figure here refers to three types of poultry namely fowl, geese and ducks (including Manila ducks). Furthermore the statistics on poultry for the five states of Johore, Malacca, Penang, Pahang and Selangor referred to chickens only whilst in the two states of Kelantan and Perak ducks as well were included and in Trengganu geese also. In Negri Sembilan a wider application of poultry was used. Here in its widest sense poultry included all chickens, ducks, turkeys, quails etc.

All the figures in the table however are of livestock owned by the farmer on the day of enumeration which includes all the animals which were rented or leased out to the other farmers e.g. buffaloes rented for ploughing or leased for rearing on a calf-sharing agreement.

Looking at the table it may be seen that most of the buffaloes are to be found on [illegible] which are found mainly in the rice-growing areas of [illegible] Kelantan, Trengganu and Malacca where they are used chiefly for ploughing the ricefields. In some cases they may also be used for timber haulage and a large proportion goes to supply the fresh beef eaten in the country. There are also 96,8[illegible] buffaloes [illegible] in the census in the "mixed" [illegible] also [illegible] use of in the usual manner. All in all the [illegible] seem to be very small in number and are only found in certain type of farms

A similar pattern seems to apply to the cattle category. These small hardy animals - 16[illegible] heads are also in the rice-growing areas mainly and are used for

ploughing, carting and meat especially in Kelantan which reported the highest figure of 78,[illegible] heads. The local Indian dairy cattle - 8,146 heads are a mixture of the Indian breeds of cattle and are found mainly around the larger towns and on estates with Indian labourers. Their average yield has been reported to be at 100 gallons a year, although yields up to 300 gallons have been recorded. Although most of this is sold as milk a certain amount is turned into ghee or clarified butter. These cattle are found also mainly in rubber cultivation and fruit cultivation besides being in wet padi areas. Mixed farms reported however the highest figure at 83,[illegible] heads most probably these are kept on a 'side' occupation basis.

Goats were reported to be [illegible] heads and sheep 59,108 in number. Goats are reared for meat usually by Malays and Indians. Sheep are found mainly in the drier areas of the east coast (Kelantan reported 20,774 heads) and both these are again found in inevitable numbers as reported in Table 5.5 in the different types of farms.

As for the pigs, the rearing is almost entirely a Chinese monopoly maybe also due to the religious habits of the other races. There are 331,124 heads of pigs reported and 56,356 gilts/sows in the country. This has been reported to be sufficient to meet all the Federation's requirements of fresh pork and even provides a surplus for export to Singapore.

Poultry on the other hand are kept by all nationalities both in town and in the country. Of the total 6,824,592 reported, 5,909,054 were fowls [illegible] were ducks and 34,486 were geese. Although there are few large farms carrying up to 10,000 birds the majority are kept as small "backyard" flocks as a sideline to other activities. However it has been estimated that although there is a considerable increase in poultry rearing during the past few years, local production is still unable to meet the demands for poultry meat and eggs and a large proportion has thus to be imported in both birds and eggs mainly from Singapore and Thailand.

VI. Fish and Wood Products

Fish and wood products reported by states are shown in Table 5.6. Usually farmers are able to find time in addition to the farming activities to engage in catching fish.

These fish product came from three major sources. Thus of the total 85,85[illegible] farms reporting engagement in this activity 918 of the reported fish to be reared from fry, [illegible],076 reported fish caught from outside or on the farm itself and 49,315 from elsewhere sources. This as the same farmer may be engaged in obtaining fish from more than one of these three sources, one finds that in this [illegible] type of tabulation the sum of the farmers will exceed the total farmers who reported fishing as a part-time occupation. Also [illegible] the quantity of fish obtained by the farmer from any of these three sources are for the year preceding the census. The table thus gives a fair measure of the extent of the fishing enterprise carried out by farmers and is more or less self-explanatory.

Where wood products are concerned, it is usual to find that farmers cut wood for various purposes and from various sources like from wood patches, rattan, other or rubber trees. Thus a total number of 107,3[illegible] farms reported to have indulged in this activity — 81,972 farms reported to get wood from the first source, [illegible] from the second, [illegible],16[illegible] from the third and 1[illegible],175 farms from the last i.e. rubber trees. These figures refer to the cutting during the year preceding the Census. These wood products are usually for houses, fences, fishing stakes etc. It also includes rattan and leaves for the making of attap houses and even those farmers who fell old rubber trees for firewood. These may be cut from either the farm land or from state land or forests by permit or otherwise.

Table 3.6 **Fish and Wood Products by State**

State	Number of Farms Reporting Fish Products					Number of Farms Obtaining Wood Products(Kinds)				
	Total	%	Reared From Fry	Caught on Farm	Caught Elsewhere	Total	%	Wood Poles	Rattan	Attap	Rubber Trees
Federation	85,892	100	918	43,076	49,318	197,860	100	81,078	12,086	55,160	120,178
Johore	1,934	2	42	70	1,842	26,484	13	4,282	968	4,126	22,412
Kedah	22,840	27	190	13,182	12,516	35,426	18	17,368	2,346	12,578	16,188
Kelantan	23,870	28	90	9,210	15,980	30,260	15	22,120	1,746	13,342	12,028
Malacca	974	1	4	186	808	6,592	3	2,266	40	2,052	4,224
Negri Sembilan	3,424	4	110	2,184	1,594	14,752	8	3,594	1,054	3,822	12,992
Pahang	4,800	5	36	1,082	4,132	12,200	6	7,386	3,008	3,420	5,942
Penang & Prov. Wellesley	1,892	2	0	1,126	826	2,758	1	706	0	518	1,668
Perak	12,480	15	104	8,294	5,280	41,050	21	5,898	1,090	6,968	35,610
Perlis	2,784	3	20	2,440	546	6,576	3	4,814	182	2,228	942
Selangor	6,650	8	282	4,752	2,156	10,034	6	2,862	180	2,634	5,874
Trengganu	4,148	5	40	550	3,678	11,728	6	9,784	11,472	3,472	2,698

CHAPTER SIX

ESTATES

In these last two chapters, attention shall be directed away from the smallholders farms to the other remaining three groups of "farms" which make up the Agricultural pattern of Malaya.

These other type of "farms" were, due to their peculiar nature enumerated on a 100 per cent basis through the postal questionnaire technique and not the personal interview method as was in the case of the smallholdings sample survey.

Information for these groups were obtained from three different separate type of questionnaires during the Census of Agriculture, 1960.

In this chapter we shall pick up the most important of these three groups viz the Estates; and in the next chapter the remaining groups entitled "Government Farms" and "Group Settlement Scheme Farms" will be taken into account.

Report No.16 of the Census deals with the information obtained from the Estates. The information was obtained by means of two postal questionnaires and all known estates were covered. The names and addresses of estates were obtained from the Department of Statistics, and were counter-checked from other sources e.g. the National Union of Plantation workers, the Labour Department and the Straits Times Directory. The first of these two questionnaires was sent in October 1959 to all these enlisted estates; and the second was despatched at a later date in August 1960.

The main questionnaire was contained in the second form which required the managers to fill in detailed information on the land use and the other required agricultural topics. On receiving the returned questionnaire, it was discovered that some of these estates which had been excluded from the small farm enumeration had actually less than 100 acres of cultivated land. And thus in theory these 'estates' (seventy of them) which had less than 10[illegible] acres of cultivated land should have strictly speaking been excluded in this section, but were included for practical purposes.

1. Nature of Estates

In the first place the definition of an estate

used in the Census was a modification of that which was used by the Department of Statistics. In the Rubber Statistics Handbook an estate was defined as "land contiguous, aggregate not less than 100 acres in area, planted with rubber or on which the planting of rubber is permitted and under a single legal ownership". This also applied for crops other than rubber, say coconuts, oil palm, tea or pineapple. This definition of an estate was used by the Department of Statistics which publishes acreages under these crops but the area required for qualification was not precisely stated. The result was that for these crops, information on plantations of below 100 acres had been included.

For the purposes of the Census, an estate was defined as an area of 100 acres or more of cultivated land which was managed, as a single agricultural unit and operating its own set of financial accounts. Here, cultivated land consists of all the land planted with crops, as well as the cleared lands or land being cleared prior to the planting. The size groupings of these estates were based on the area of land under cultivation and not on the total land in the estates.

However there was a problem which cropped up. This was that it became difficult to define "managed as a single agricultural unit". This problem arose because in practice there are a number of managers who supervised more than one estate. In fact there were 339 of these people and one of them was even supervising 8 estates. As such it was even suggested that an "estate" was to be defined as an amalgation of all estates (plots of land) which had the same ownership and were under one single management, irrespective of the location. If this were done the total number of estates would have been considerably reduced from 2,382 to 2,139. But this practice would have the disastrous effect of disterting or making it impossible to give District and State figures. As such the final decision was to define an estate as a unit which was "managed as a single agricultural unit" if it had its own labour force, machinery or equipment and is able to supply information on land use production, etc. and operates its own financial accounts.

One other peculiar nature of estates which must be noted is connected with the problem of location of the estate. The tables in the Census are given in Districts and State totals for the number and the area of the estates, as such figures may be of considerable use for socio-economic planning. But then these District totals (and State totals) can only be tabulated if the whole

estate is located within one District or State. What of those estates which are in two Districts within the same State? Or those which are situated in two or more States? As such the following decision was made - to locate each estate only to a single district within a State. The criterion for doing this was as follows:-

a) where an estate was in two or more Districts within the same State, it is placed in the District having the larger part of the total land of that estate.

b) Where the estate is in two different States, it is placed in the State having the larger part of the total land of the Estate.

11. Number and Size of Estates

Table 6.1 gives the data on the number and area of the estates tabulated first by State and then by size. All in all 2,382 estates were located in the Federation. Johore had 822, estates; Perak 418; and Selangor 36 while on the contrary Kelantan recorded a low figure of 68; Trengganu 40 and Perlis only 6 estates.

Table 6.1 **Distribution of Estates by Area, Size and State**

i) by STATE

STATE	Total Estates Reported			Land Cultivated by Estates	
	No.	Total Land Area Acres	%	Acres	%
Malaya	2,382	2,522,561	100	2,221,957	88
Johore	522	716,210	100	635,060	89
Kedah	267	231,198	100	208,087	90
Kelantan	68	68,791	100	44,314	65
Malacca	147	126,604	100	118,712	94
Negri Sembilan	279	314,617	100	278,604	89
Pahang	186	158,902	100	126,907	80
Penang	86	56,896	100	46,828	82
Perak	418	377,491	100	341,676	91
Perlis	6	2,310	100	2,273	97
Selangor	363	443,034	100	396,138	89
Trengganu	40	26,948	100	23,180	87

ii) By Size

Size Group in Acres					
Total	2,382	2,522,561	100	2,221,957	88
Below 99	70	8,630	100	5,544	64
100 - 199	830	120,959	100	112,608	93
200 - 299	315	79,226	100	74,684	94
300 - 399	143	52,191	100	49,133	94
400 - 499	130	68,074	100	57,900	85
500 - 999	290	240,034	100	211,799	88
1,000 - 1,999	305	489,366	100	433,219	89
2,000 - 2,999	108	304,728	100	268,138	88
3,000 - 3,999	69	280,007	100	236,260	84
4,000 - 4,999	47	236,434	100	211,723	80
5,000 - & over	75	642,082	100	560,749	87

of the total land area of 2,62[illegible],561 acres occupied by these estates, Johore recorded again the biggest acreage being 716,210 followed by Selangor with a figure of 443,084 and then Perak 377,491 acres.

However only 83 per cent of the total area (or 2,221,957) reported were under cultivation. All the estates in each State had a percentage of well above 80 or thereabouts of their total area being under cultivation with the exception of the State of Kelantan whose area under cultivation was 65 per cent (or 44,514 acres) of the total 68,791 acres reported. In Malacca an unusual 94 per cent of the State total area under estates was reported to be under cultivation.

The size classification of estates can also be noted from Table 6.1 and the figures in this table are based on the overall total cultivated land area excluding any land which was not actively cultivated for crops. This total cultivated land includes the acreages planted with

a) sole or unmixed crops
b) mixed crops
c) nurseries, as well as acreage cleared or are cleared from land previously planted or land not previously planted.

Upon this criterion, the Census classified these estates into 11 size groups from estates below 99 acres to those well over 5,000 acres.

There were 70 estates under 99 acres which as mentioned should have been in the smallholders' section. Only 75 estates were over 5,000 acres while the greatest number of estates fall within the class range of 100 - 199 acres (230 of them). However there are 505 estates which were within 500 and 1,999 acres - this forms quite a significant proportion of the total number of estates reported.

Again from this table it can be noted that the majority of the estates used up most of their land for cultivation purposes. All of them had well over 80 per cent of their total land under cultivation with the exception of the 4,000 to 4,999 acres size group which reported 80 per cent, and the smallest size group of below 99 acres which reported that only 64 per cent of their total acreage was under cultivation.

There is however one other minor point which must be noted especially when one discuss the acreage under each specific crop cultivation in these estates.

this is that in the figures reported for the various crops such as rubber, oil palm, coconuts etc., the estates are classified in a slightly different manner with regards to size groups, that is they are classified according to the total acreage of that particular crop. Thus the column headings would appear as "Size of rubberland in acres" or "Size of Tea-land in acres" etc. For instance, an estate with a total land area of 515 acres may have an overall total cultivated area of only 490 acres, and of this 380 acres are in rubberland. If this is the case then this estate will fall into two different size groups in respect of firstly the total cultivated land (based on the 490 acres), and then the rubberland acreage (based on 380 acres). This was done so as to indicate and bring out the significance of the scale of the enterprise of that particular crop as distinct from the overall size of the estate.

Land-use and Area of Other Cultivation

The 2,38[illegible] estates reported a total land area of [illegible]2,561 acres of land which are put by the management to various uses. These areas may be cultivated with one crop or another or uncultivated known as "other land." This other land came up to a total acreage of 291,498 acres.

In the cultivated land, of the [illegible],131,063 acres, the major proportion of 2,221,957 acres are under the control of the estate management; but the remaining balance are either cultivated by estate labourers for their own use (6,133 acres of this type), or in some other instances part of the estate land is worked by smallholders (2,973 acres). However all these three categories are under active cultivation

As for the uncultivated land or "other land" of the estates, they are either used or unused. Thus of the "other land" (291,498 acres), 43,9[illegible] acres were used to build up areas of the estates. Such land are usually taken up by buildings to house the employees of the estate drying grounds for the staff, sites for factories to process rubber and other agricultural products, roads and tracks as well as land taken up for the laying of electric and telegraphic cables. Even occasionally an estate may report that some part of its land is used for tin-mining or for some sort of housing projects. The other part of the uncultivated land is unused and this includes land which is not being used actively for the cultivation of crops or other activities such as grassland, abandoned land, primary jungles, secondary bluk[illegible] etc. This

unused land came up to 248,576 acres in the whole of the Federation. Estates may also leave this land uncultivated for a number of reasons such as that these may constitute reserves held by the estate for future development.

The total acreage of cultivated land may be classified into 7 types of farming namely Rubber, Coconuts, Oil Palm, Tea, Pineapple, Fruits and Other. (See Table 6.) according to the predominant land use of the estate. Thus a "rubber estate" for example is an estate in which ; or 75 per cent or more of the total cultivated land is reported under Rubber. Under the 64 "other crop estates" there were 2 estates which reported as having predominant land use for cocoa farming; one each for fruit, padi, abaca and coffee.

Table 6.2 **Type of Estate Cultivation by Area and State**

STATE	Total Sole Crop			Rubber			Coconut			Oil Palm			Tea			Pineapple			Fruits			Others		
	No.	Acres	%	No.	Acres	%	No.	Acres	%	No.	Acres	%	No.	Acres	%	No.	Acres	%	No.	Acres	%	No.	Acres	%
Malaya	2,337	2,158,861	100	2,287	1,905,871	89	258	88,423	4	88	131,185	6	18	8,305	-	7	15,082	1	88	1,404	-	84	5,781	-
Johore	519	614,058	100	504	530,716	88	28	1,718	-	9	58,929	10	1	31	-	5	13,282	2	15	144	-	7	228	-
Kedah	267	199,978	100	288	198,485	99	33	1,184	1	-	-	-	-	-	-	-	-	-	8	10	-	8	278	-
Kelantan	88	42,673	100	88	41,354	98	4	28	-	2	840	2	-	-	-	-	-	-	8	46	-	1	4	-
Malacca	147	114,674	100	146	114,185	100	18	133	-	-	-	-	1	2	-	-	-	-	5	21	-	5	323	-
Negri Sembilan	278	272,882	100	274	269,323	99	8	82	-	4	2,734	1	-	-	-	-	-	-	4	12	-	3	12	-
Pahang	188	123,837	100	178	112,172	91	5	1,018	1	4	3,138	2	7	4,253	3	-	-	-	3	95	-	3	2,388	2
Penang	86	44,284	100	78	30,853	70	43	10,814	25	2	873	2	-	-	-	-	-	-	13	1,041	2	8	483	1
Perak	418	332,719	100	403	262,138	79	88	44,478	14	9	14,888	7	3	815	-	1	288	-	8	71	-	13	406	0
Perlis	6	2,213	100	5	2,195	99	0	0	-	0	-	-	-	-	-	-	-	-	0	-	-	1	18	1
Selangor	382	387,863	100	338	318,883	82	35	34,851	8	38	48,831	11	4	2,484	1	1	840	-	5	38	-	12	806	-
Trengganu	40	22,888	100	36	116,737	73	5	4,883	22	-	-	-	-	-	-	-	-	-	5	7	-	4	1,151	5

Of the 2,337 estates reported under sole crops in Table 6.2, 89 per cent or 2,287 of them were under Rubber Cultivation spreading over an acreage of 1,906,871 of land. This thus leaves only 250,19[illegible] acres for the other crops under estate cultivation. In the State of Malacca all the lands under the estates were planted with rubber while Kedah and Negri Sembilan report 99 per cent of their estate land under this very important economic cash crop of the country. Johore had only 8[illegible] per cent of its total acreage under rubber which may be due to the fact that she indulges greatly in the production of oil palms (which occupied 10 per cent of the total estate land) and pineapple which in fact has its nerve centre or headquarters in this State itself for Johore holds a monopoly of the pineapple industry owning 5 of the 7 existing estates in the whole of the Federation of Malaya.

Penang on the other hand reported only 70 per cent of their estate land acreage under rubberland; while practically all the remaining balance - 25 per cent of it was under coconut plantation. The situation in Penang is quite similar to the two other states of Perak and Trengganu.

All in all every State reported to have a high percentage of their estate land under rubber plantation. This as can be recalled was also the trend with the smallholdings. These rubberland however are made up of mature and immature rubber trees and were also planted with 4 different types of planting materials viz ordinary seedlings, budgrafted rubber, clonal seedlings and the mixed type. The produce from these rubber estate may be sent out in either an unprocessed state or it may first have been processed in the estate itself. With regards to the latter situation, most estates produce sheet rubber which includes the various grades of Dry Ribbed Smoked Sheets and the Air Dried Sheets. There are yet other rubber estates which reported production of Special Rubber Products like superior processing rubbers, cyclised rubber and other special rubber. But only a few estates reported to be producing such special product and those concerned were usually the bigger estates which had more complicated and expensive rubber processing equipment.

According to the number of estates reported, oil palm plantations seem to be next in economic importance to the rubber industry followed by the Coconut and then the Pineapple Plantations. Oil palms occupied [illegible] 6 per cent of the total Federation estate acreage and are mainly found in the States of Selangor ([illegible] acres), Johore (58,929 acres) and Perak (14,[illegible] acres) which

together with other minor figures from the other States made a Federal total acreage of 131,105 acres.

Coconut on the other hand only occupied an acreage of 83,423 acres of estate land and when computed came up to only 4 per cent of the total estate acreage.

Both the oil palm estates and coconut estates were also planted with trees which were classified as either mature or immature. Out of the 49 estates which reported having mature areas on oil palm, only 5 of them actually recorded any production of oil palm fruits. However the area of these 5 producing estates represented about 98 per cent of the total mature area.

Finally we find that of the total 2,186,061 acres under these sole crops described above only 45 per cent or 992,483 acres were treated with fertilizers of one type or another.

4. Ownership and management of estates

The owners of the estates have been classified into two broad groups in Table 6.3 which illustrates the ownership and management of estates by States.

Table 6.3 **Type of Ownership and Management of Estates by States**

STATE	Type of Ownership				Type of Manager			
	Private Person		Ltd. Liability Co.		Owner		Salaried	
	No.	%	No.	%	No.		No.	%
Malaya	1,543	65	839	35	888	37	1,494	63
Johore	331	63	191	37	177	34	345	66
Kedah	204	76	63	24	165	35	174	65
Kelantan	48	71	20	29	32	47	36	53
Malacca	109	74	38	26	64	44	83	56
Negri Sembilan	189	68	89	32	115	41	164	59
Pahang	126	68	60	32	79	42	107	58
Penang	73	85	13	15	43	50	43	50
Perak	253	61	165	39	155	38	263	62
Perlis	4	67	2	33	1	17	5	83
Selangor	179	47	191	53	107	29	256	71
Trengganu	33	63	7	17	22	56	1818	44

These two groups are the private persons and the Limited Liability Companies. Thus there are 1,543 cases of the former type and only 830 cases of the latter type.

Under this group of private partnership, the owner may be alone or he may be a private partnership. The Limited Liability Companies on the other hand may be either Private or public. In a few instances it was also difficult to decide whether the estate fell into either of these two groups as when it was owned by a Missionary body, State Government or Rubber Research Institute. Finally it was decided that these estates were to be grouped under the Limited Liability Companies thus inflating its figures to a small extent.

In spite of this inflation it can be seen that Malayans rather prefer to own estates either as a single proprietor or in private partnership as 65 per cent of the estates came under this category.

Selangor reported the lowest percentage figure of estates to be under the private ownership. This low figure of 47 per cent may be due to the presence of quite a number of foreign owned estates such as Socfin and Castlefield Estates. On the contrary Penang and Province Wellesley reported the highest percentage figure, 85 per cent of their estate being under private ownership. This could partly explain the phenomena that there are a lot of millionaires in this State. The other States all reported more than 62 per cent of their estates were under private persons.

Regarding the subject of managers in these estates, two types may also be distinguished viz the owner manager and the salaried manager who were either resident on the estates which they controlled or were living outside them (non-resident) i.e. they do not live on the estates which they supervise. There were also a few cases which stated that they (the managers) could not classify themselves as owner-manager or salaried but pointed out that though they did not received any salary they were working on an honorary basis. These managers have been included for purposes of the Census to be "salaried" managers.

From the table it can be seen that most of the managers are on a salaried basis - 1,907 of these as against 888 of the owner-manager type. But most of these owner-managers are non-resident, only 128 of them are residents on the estate. On the contrary out of the total 1,494 salaried managers, 793 of are resident leaving 701 non-resident.

V. **Staff and Employment in Estates**

The number of persons in the estates will vary to some extent during the different months of the year for a variety of reasons. However the figures given in Table [illegible] refer to employment at a particular point of time i.e. 31st July 1960. There is no special reason for this choice of date except for the fact that the questionnaire was despatched in August 1960 and therefore the information on the numbers employed as on that date would prove to be of great [illegible] for those who were to fill up the questionnaires.

Only a few estates did not report the employment of any labour apart from the owner/manager of the estate. This was because there was no labour force in these estates at that time due to

a) The estate had temporary closed and stopped operations on that month of July 1960

b) no labour was required as in the case of these few estates whose total area of cultivated land was still all under immature rubberland; or in a small coconut estate where no permanent labour may be required

c) The estate had just been leased out and as such the owner is unaware of the number of labourers employed.

In the Census two different types of employment are distinguished namely labour that is directly employed by the estate and labour employed indirectly through contractors.

A breakdown of the Federation figures is as follows: There were [illegible] estates employing a total labour force of 328,141 persons. Of these [illegible] are directly employed while 68,66[illegible] or 21 per cent are indirectly employed by the estate. [illegible] of the total staff directly employed by the estates, [illegible] or 80 per cent of them are residents on the estat [illegible] while the other 51,344 making up 20 per cent are non-resident in character i.e. they are living off the estates going there only to work in the day. This great proportion of resident employees make it necessary for the estates to devote quite a large amount of their land to housing these people. On the top of that, the estates also have to provide them with various facilities such as recreational, hospitals and even schools for the

employees' children to attend. Finally there were 239,069 persons who were not employed in the estates but who were living within these estates for one reason or another e.g. land worked by smallholders or land leased out by the estate management to other people.

In Table 6.4 the labour employed in estates is broken down into a number of classes executive, supervision and monthly paid employees (these are only directly employed by the estates) and the other group of daily rated workers which are either directly employed by the estates or may be indirectly employed by them. This latter group comprise of Tappers/harvesters/Pluckers, Field workers/ weeders/sprayers, Factory workers, and other daily rated employees.

Although the table gives the number of persons working in each of these classes as at that daily basis, nevertheless it is known that in the case of some of the smaller estates the same person may be engaged as field workers and as factory workers at different hours of the day or at different days of the month. Moreover even in the larger estates e.g. oil palm estates, at certain months due to an insufficient crop, daily rated harvesters may be doing field work so as to maintain continuous employment at a daily rate of pay. All these go to show that too much reliance should not be attached to this classification as specialization of manual workers in estates is not so well developed as this table tends to indicate.

Of the whole labour force in the estate only 6,648 of them are on the role as executive, supervisory and monthly paid employees. This small class of monthly paid employees are most likely to be on involved in the paper work and administration of the estate.

Table 6.4 **Number of Persons Employed in Estates by Type of Estate**

Type of Estate	All Staff			Executive Super- visory & Month. Workers	Tappers/ Harvesters Paid Pluckers	Field Workers/ Weeders/ Sprays	Factory Workers	Other Daily Paid Worker
	Total No.	Directly Employed No.	Indirectly Employed No.					
Total	328,141	259,472	68,669	5,648	197,410	88,921	14,040	10,623
Rubber	283,421	225,949	59,472	5,087	182,477	69,932	11,062	7,341
Coconut	5,913	5,632	281	107	1,480	2,446	620	627
Oil Palm	14,160	8,765	5,395	136	5,054	8,072	1,083	1,422
Tea	2,698	2,410	288	26	1,340	755	270	329
Pineapple	3,209	688	1,521	43	1,418	476	6	127
Other Crops	310	287	23	10	39	194	24	15
Mixed	17,351	15,734	1,622	233	7,602	6,999	981	1,042
Cleared Land Only	74	7	67	6	0	47	0	20

Of the tappers/Harvesters/Pluckers group of 197,410 workers only 23 per cent of these are indirectly employed by the estate i.e. most probably through a contractor. The labour force of field workers/weeders/sprayers is 83,921 in number of which the majority of 78 per cent are again employed directly by the estate management. The factory workers tend to be a very small group as some of the small estates usually sent out their products in an unprocessed state while other bigger ones may indulge in a small extent (usually the easy processes e.g. smoking) of processing. Only a few estates reported to produce special rubber products. As such factory workers are only 14,040 in number of which 91 per cent are directly employed by the estates. The other daily rated employees came to 10,673 persons.

Except for the Executive, Supervisory and monthly paid employees all these other categories discussed are paid on a daily basis.

In the pineapple estates there are no factory workers employed; this is probably because the canning industry of pineapples are divorced from the activities of the estates which are just concerned with growing and plucking of the fruits.

Under the cleared land catagory there are only six supervisors engaged in looking after the 47 field workers and 20 other daily paid workers most probably in their work of clearing up the land for future cultivation; and here it is noticeable that of the whole 74 people employed only 7 are directly employed by the estates: the rest are employed indirectly. Most probably these people are employed by the contractors who were successful in getting the tender from the management to clear the land for future cultivation.

CHAPTER SEVEN

GOVERNMENT FARMS AND GROUP SETTLEMENT SCHEME FARMS

As in Chapter Six on "Estates", this chapter also deals with farms which were not covered by the area segments created for the smallholdings' section of the 1960 Census of Agriculture. This was because of the different conditions that were existing in these farms. As such a special questionnaire was designed and approved by the Directors of Agriculture and Veterinary Services and was sent by post to the managers of these farms; thus unlike the smallholdings but similar to the estates these farms were enumerated on a 100 per cent basis.

Some of the major reasons which demanded separate treatment of these farms from that of the small holdings were:-

1. These farms are not run for profit but mainly for research, extension or training.

2. As these farms are already known to the Government and some of the Departmental Officers were actually responsible for them, the managers could be easily contacted and asked to fill up the forms

3. Since their numbers were relatively small, a 100 per cent coverage was possible.

4. Some of the questions in the small farm questionnaire such as farmers' occupation, number of household members etc. are not applicable, and so a different schedule had to be prepared to draft out more appropriate questions.

These type of farms were essentially of two different groups namely Government Farms and Group Settlement Scheme Farms as derived from the Preliminary Report No. 15 of the 1960 Census of Agriculture upon which discussion on this chapter is mainly based.

A - Government Farms

I. Nature and Characteristics of Government Farms

A Government farm is an agricultural enterprise run by the Government or by a quasi-Government authority for research, extension, training or demonstration purposes. It includes all the land owned or leased for agricultural purposes such as for the production of crops, livestock and livestock products.

Although farms run by the Department of Agriculture, Veterinary Services, the Rubber Research Institute and the Malayan Pineapple Industry Board clearly come under this category of Government farms as defined above, much thought had to be given to the farms organised by other Authorities before they were considered for inclusion under this section. This for example one large farm was left out even though it complied with the above definition. This was the Rubber Research Institute's Estate at Sungei Baloh which, although it does help in research work was nevertheless also run on a commercial basis. Furthermore this Estate had been formerly (before the enumeration by the Census 1960) classified as an "estate" by the Department of Statistics in their collection of data for their annual and monthly reports on rubber. As such for the purposes of the Census too, it was decided to conform with this classification.

All in all 136 farms were recorded in this section occupying an area of 10,443½ acres of land, but only 4,78[illegible] acres of this total area was cultivated as shown in Table 7.1. This total land area of the farms included both the alienated land as well as land that has been leased in or rented. The cultivated area is small when compared with the total because many farms hold reserves of uncultivated land which may be used in the future year for fertiliser or variety trials.in which new and improved strains of crop plants will be grown to ascertain their suitability to the local condition.

In the table it is noted that though Perak had the greatest number of government farms, Johore held the largest amount in terms of area. It reported a total number of 13 farms occupying 4,623½ acres as against Perak's figure of 36 farms covering only 483½ acres.

These 136 farms are runned as mentioned by various Authorities and are engaged in a great variety of

Table 7.1 **Distribution of Government Farms by Area, State and the various Authority**

STATE	Total Farms Reported			Dept. of Agriculture Authority		Veterinary Dept. Authority		Other Authority[1]	
	Farms	Area(in Acres) Total	Cultivated	Farms	Cultivated Area (ACS)	Farms	Cultivated Area(ACS)	Farms	Cultivated Area(ACS)
Malaya	135	10,443½	4,781½	121	2,422½	4	2,246½	10	113½
Johore	13	4,623½	2,239½	9	166½	1	2,003	3	70
Kedah	12	582½	270	12	270	0	0	0	0
Kelantan	13	469½	280½	12	214	1	66½	0	0
Malacca	8	233½	171½	6	157½	0	0	2	13½
Negri Sembilan	11	323	279½	10	142	1	137½	0	0
Pahang	14	367½	190½	14	190½	0	0	0	0
Penang	6	93½	88½	6	88½	0	0	0	0
Perlis	13	47	31½	3	31½	0	0	0	0
Perak	26	483½	370½	25	331	1	39½	0	0
Selangor	19	1,705½	635½	14	606½	0	0	5	29½
Trengganu	10	1,305	223½	10	223½	0	0	0	0

[1] Footnote:
Other Authority:
4 farms : each in Selangor & Johore under Social Welfare Dept.
2 " : 1 each in Selangor & Malacca under R.R.I.
1 farm : under Malaya Pineapple Industry Board, Johore
1 " : " Sungei Buloh Settlement Council, Selangor
1 " : " Henry Gurney School, Malacca
1 " : " Development Corporation, Selangor

Total 10 farms Federation

crops or activities which are specialized for various purposes accordingly. As expected the bulk of these farms are operated by the Department of Agriculture which controlled 121 farms out of the total 135 farms. The rest are under various other authorities such as 4 under the Veterinary Department, 4 under the Social Welfare Department, 2 under the Rubber Research Institute (R.R.I.) and one each under the Malayan Pineapple Industry Board; the Sungei Besi Settlement Council, the Sir Henry Gurney School and the Petaling Jaya Development Corporation.

Those under the Agricultural Department, in addition to padi, also cultivated a number of dry land crops for the purpose of deciding whether the soil is capable of supporting these crops and if so, to determine which of these crops is most suitable to the soil. Thus primarily, research, extension, demonstration and training are carried out in these farms with the aim of serving the needs of the small farmer. Then the farms under the Veterinary Department are concerned with another specialized activity. They conduct research in animal husbandry and animal health aimed at improving the living standards of the livestock keepers of Malaya.

On the other hand there are also the farms or research stations which specialize in certain commodities which are of great economic importance to the country These are those farms run by the R.R.I and the Malayan Pineapple Industry Board which concentrate their research on only a single crop each, being rubber and pineapples respectively. Both these organizations are partly financed by the industry which benefits from the results of these research. Thus in the case of the R.R.I. farms, they are financed by a cess on the exports of rubber from Malaya. In addition to this source of finance the R.R.I. also receives various amounts in contribution from some of the other rubber producing countries e.g. Nigeria, Sarawak Brunei and North Borneo.

In contrast to these, a "farm" run by the Social Welfare Department such as the Serendah Boy's Home has altogether a different emphasis. The Home is an institution for vocational training for the boys between the ages 9 to 16. Here the boys are given instructions in several different vocations such as mechanics, carpentry, tailoring and agriculture.

Thus to conclude it can be seen that the nature and characteristic of these government farms are varied and specialised not only in the type and extent of agriculture involved in but also by the control of different various Authorities.

II. Land Utilisation on Government farms

A note should be made firstly about the size of the government farms which is based upon the total cultivated land area and thus excludes any land not actively cultivated for crops. There is as has been mentioned before a great difference between these cultivated land and the total amount of land held. In the Census the size of farms are classified under 9 different size groups and the areas of the farms are reported to the nearest quarter acre.

This "accurateness" is appropriate as some of the crops that are grown for experimental purposes are on a very small scale; and any rounding up of the figures on the exact acreage may distort and thus not give a precise indication of the scale of research projects that are taking place.

Thus in the Census the majority of the farms 97 out of 135 of them are under 15 acres with the largest size frequency of below 5 acres which tallied upto a number of 31 farms; while the second largest size frequency was the next group i.e. 5-7½ acres:25 farms are in this size-group. Only 2 farms are over 500 acres in size run by the Department of Agriculture (1,400 acres) and the Veterinary Service (4,000 acres). Finally there are only 6 farms which are in the 100-499 acres size group. This means that if these government farms were not subjected to special postal enumeration, all 135 of them with the exception of 8 farms will fall within the small holdings category and shall thus not be enumerated on a 10% basis but on the normal two stage sampling design.

Table 7.2 **Distribution of Government Farms by Type of Crop**

Responsible Authority	ALL Farms No.	ALL Area (ACS)	ALL %	Permanent Crops Total No.	Permanent Crops Total Acres	Permanent Crops Total %	Permanent Crops No. of Farms Rubber	Coconut	Fruits	Other[1]	Temporary Crops Total No.	Temporary Crops Total Acres	Temporary Crops Total %	Temporary Crops No. of Farms Pasture	Food Crop	Fodder	Other[2]
Agriculture Dept.	112	1,819	44	67	818½	84	16	22	35	30	80	988½	30	23	13	25	28
Veterinary Dept.	4	2,231½	54	2	2½	0	0	1	1	0	4	2,229	69	4	0	3	0
Social Welfare Dept.	4	27½	1	2	1½	0	1	0	1	0	4	25	1	0	4	0	0
Rubber Research Inst.	2	18½	0	2	18½	2	2	0	0	0	0	0	0	0	0	0	0
Malayan Pineapple Industry Brd	1	38	1	1	38	4	0	0	1	0	0	0	0	0	0	0	0
Sg. Buloh Settle. Council	1	2½	0	1	2½	0	1	0	0	0	0	0	0	0	0	0	0
Henry Gurney School	1	2	0	1	¼	0	0	0	1	0	1	1½	0	0	1	0	0
P.J. Development Corp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	135	4,148	100	76	925	100	20	23	39	30	29	3,215	100	27	18	28	28

Footnote:

(1) Others include: Oil Palm - 6 Farms
Cocoa - 13 "
Coffee - 15 "
Tea - 4 "
Manila Hemp - 2 "
Others - 8 "
Total 50 "
All under Agriculture Authority

(2) Others include : Wet Padi 55 farms
Dry Padi 2 "
Jute 1 "
Total 58 "
All under Agri. Dept.

Regarding the land utilization in these government farms, as shown in Table 7.3, the total land area includes both alienated land as well as land that has been leased out or rented. The land used here is classified under two broad groups that of permanent crops and temporary crops.

Mostof the farms of the Agricultural Department are devoted to the two most important cash crops of Malaya that of Rubber (16 farms) and Wet padi (35 farms). Fruits also seem to be under experimentation in many of these farms maybe due to the demand of Malayan fruits for local consumption or the aim to reduce the amount of imported fruits. As such the Government is trying to boost up the production of fruits as one of the many projects aimed at diversifying the lop-sidedness of the Malayan Economy. This may also explain the high number of farms engaged in activities of coconut and padi cultivation.

The two farms reported under the Sir Henry Gurney School are however most probably for very different reasons. One of them grows food while the other is engaged in fruit cultivation. These farms are possibly cultivated as a source of extra-mural activities for the boys in the school; or they may be indulged in to teach the boys some of the scientific techniques of agriculture. Finally the 4 food crop farms under the Social Welfare Department most probably serves as part of the total supply of food that is required by the respective groups which cultivated them.

B. Group Settlement Schemes Farms

I.I. Nature of Group Settlement Farms

These farms are in groups and are organised by the Government also either through the State Land Department Boards or through the Federal Land Development Authority. All in all there are 22 farms in this section occupying a total land area of 51,608 acres of which 67 per cent of the total area is under cultivation as seen in Table 7.3.

Though the number of farms reported come to a small figure of 22, their size group in acres are very large. In the Census these farms were classified into 8 sizes ranging from 200 acres to 4,999 acres; and the highest class frequency occurs in the 500 - 699 acres size group which dominates an area of 8,830 acres of land.

Furthermore there are 4 farms reported under this section to be between 3,00[illegible] - 4,999 acres (see Table 7.3)

In these farms the Government plays a big part in the management, planning and organisation of the settlement schemes. The choice of the site; clearing of the jungleland; preparation of the ground for cultivation; selection of the settlers; supply of the selected plants, materials and housing are all provided for and supervised by the Government. At the beginning even a small subsidy allowance was paid to these settlers but these amounts however were charged to the loan account of the settlers and as such were to be in the long run eventually repaid by the settlers.

Table 7.3 Distribution of Group Farms by Size and by State

STATES

STATE	Total Farms Reported			Cultivated Land		Rubber Farms	
	Farms Tot. Land Area			Total			
	No	Acres	%	Area	%	No.	Acres
Kelantan	22	51,603	100	32,203	62	18	13,400
Johore	5	7,845	100	5,385	69	2	690
Kedah	4	8,537	100	6,899	81	3	1,238
Kelantan	1	4,445	100	3,269	74	1	2,400
Malacca	3	6,890	100	5,564	81	3	1,570
Negri Sembilan	7	4,896	100	4,589	94	7	3,432
Pahang	1	14,000	100	3,987	28	1	2,870
Trengganu	1	5,000	100	2,510	50	1	1,200
Size Group (in Acres)	Size of Farms						
Total	22	51,603	100	32,203	62	18	13,400
200 - 299	3	771	100	754	98	3	754
300 - 499	3	2,046	100	1,172	57	2	543
500 - 699	4	2,839	100	2,405	85	3	1,296
700 - 999	3	3,380	100	2,588	75	3	1,641
1,000 - 1,999	2	2,760	100	2,489	70	2	1,656
2,000 - 2,999	3	11,582	100	6,720	58	2	1,640
3,000 - 3,999	2	18,445	100	7,256	39	2	5,270
4,000 - 4,999	2	9,780	100	8,859	91	1	600

The aim of this group schemes was to set up as many healthy farming communities as possible; and to provide these settlers with a sufficiently large farm which will give the farmers and his family full employment throughout the year and thus yield an economic return for their labour input.

Furthermore the Government also makes it a point to see that provision is being made for efficient farming which were to be brought about by proper land use and tenure systems; providing of credit facilities and to eradicate the activities of the middle men or money lenders who were in a monoply-monopsony position and could thus easily exploit the farmers. Thus this scheme was more or less brought about by the alarming rate at which these middleman exploited and controlled the illiterate smallholder. However, it is the object of this scheme to eventually relax the control exercised by the Government and ultimately to let the farms be operated by the settlers themselves.

Of the 22 farms enumerated under this section 18 of them are cultivated with rubber over an acreage of 13,400. The rest of them are cultivated with padi (wet and dry); Food crops, fruits and vegetables. Most of these rubber farms (7 of them) are located in Negri Sembilan, while all the padi farms are found in Malacca. Again in Negri Sembilan, 94 per cent of the total acres under this scheme is cultivated whereas in Pahang only 28 per cent of the 14,000 acres are cultivated. Furthermore in the States of Perak, Perlis, Selangor, Penang and Province Wellesley such a scheme does not exist at all. Pahang's only farm seems to occupy a very large area of 14,000 acres but only 3,987 acres of this large group farm is brought under cultivation.

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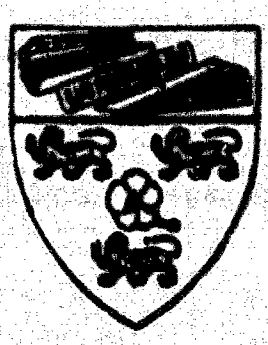

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