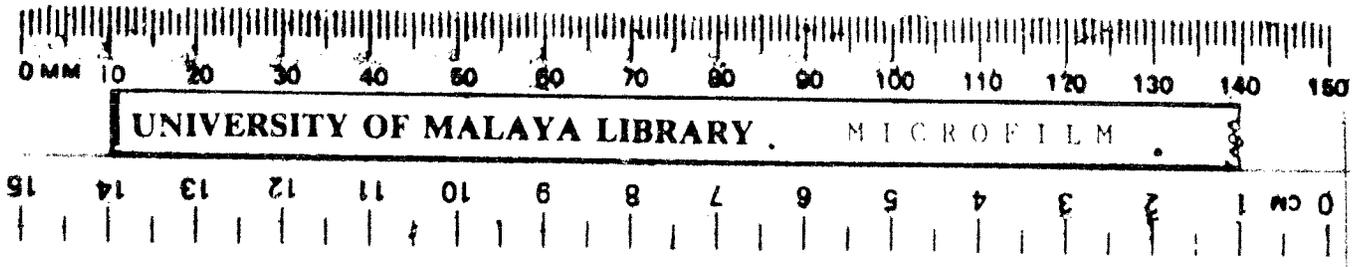


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TANJONG KARANG SURVEY - PHASE III

A SURVEY OF LAND OWNERSHIP AND OPERATION
AND OTHER MATTERS
IN BLOCK B

by

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03535

A Graduation Exercise presented to
the University of Malaya in
part fulfilment towards the
Degree of Bachelor of Arts
with Honours in Economics

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CHAPTER I

INTRODUCTION

In April 1964, nine third-year students from the Department of Economics carried out a survey in the Sawah Sempadan area in Tanjung Karang. Each student was allocated a specific block in the Sawah Sempadan area and the investigations that were carried out formed the basis of the graduation exercise.

The writer was allotted Block B which contains 104 lots. Out of the 104 lots, information was obtained from 67.5 lots. As for the remaining 36.5 lots, no information was available. This was due to the fact that the owners or operators of these lots could not be traced. The survey was conducted on the basis of house to house interviews for it was originally intended to be a hundred percentage coverage of the block. Map I helps to illustrate this situation.

Objective of Study

This year's study is the third phase of a five years study of the Sawah Sempadan area. The main emphasis is on land ownership and operation in Sawah Sempadan. This graduation exercise intends to pay particular attention to the following topics:-

- (a) Distribution of holdings and farms.
- (b) Fragmentation of holdings and farms.
- (c) Studies in joint-ownership and operation.
- (d) Padi productivity of farms.
- (e) The effect of diseases and pests on farm productivity.
- (f) Effects of water in management of farms.

Terminology

Before going into the discussion, a few terms need to be defined. Unless these terms are clearly understood, the reader will find difficulty in following the discussions in this exercise.

There are five important terms that have to be considered:-

			3620 * +
			3621 +
		3622 * * +	3623 +
		3625 * +	3626 * ^a + X
	3624 * +	3627 * +	3628 * + X
	3630 +	3631 +	3632 + X
3629 * +	3633 +	3634 +	3635 +
3636 * +	3637 * +	3638 * +	3639 * +
3640 * + X	3641 * +	3642 * + X	3643 * +
3644 * +	3645 * +	3646 + X	3647 * ^a + X
3648 + X	3649 * +	3650 * +	3651 * ^b +
3652 + X	3653 * +	3654 * ^c + X	3655 * ^a +
3656 * + X	3657 * +	3658 * +	3659 * ^b +
3660 + X	3661 + X	3662 + X	3663 * +
3664 * +	3665 +	3666 * + X	3667 * +
3668 * +	3669 * + X	3670 * +	3671 * +
3672 + X	3673 * +	3674 * +	3675 * +
3676 + X	3677 + X	3678 * +	3679 * +
3680 * +	3681 * +	3682 + X	3683 * ^b + X
3684 * +	3685 + X	3686 + X	3687 * * +
3688 * + X	3689 +	3690 * +	3691 * +
3692 * +	3693 + X	3694 +	3695 + X
3696 * +	3697 * +	3698 + X	3699 +
3700 * +	3701 +	3702 + X	3703 + X
3704 * +	3705 * +	3706 * * +	3707 + X
3708 +	3709 +	3710 * +	3711 +
3712 + X	3713 + X	3714 * + X	3715 * +
3716 + X	3717 * +	3718 * +	3719 *
3720 + X	3721 + X	3722 +	3723 *

Key

* - House
 + - Cultivated Lot
 x - No interview

*^a - Broken down house
 *^b - House - occupied only during planting and harvesting season
 *^c - House - unoccupied

- (a) "Lot"
- (b) "Holding"
- (c) "Farm"
- (d) "Owner-operator"
- (e) "Tenant-operator"

(a) A piece of land is one unbroken or undivided area that is defined or described in a document of ownership or title. Land Office records describe a piece of land as a 'lot'. The lot in our area of study is made up of three acres of land. In no case in Block B is there a lot more than three acres. A lot may be of any size from less than one acre to more than 100 acres. Legally a lot can only have one owner, but in Sawah Seapadan, a lot can have more than one owner. For example, a three-acres lot is owned by one person under one title. But this lot may be subdivided into three sub-lots and sold to three owners. The single three acres lot has now become three one-acre sub-lots.

(b) A "holding" is a unit of ownership. It comprises all the land owned by one person. All the lots that a person owns make up his holding. The holding may be of any size and the lots may or may not be cultivated by the owner.

(c) A "farm" is a unit of production based on land. A farm may consist of one lot or many lots which may be scattered or contiguous; and may be of any size. The important characteristic is that the farm is a unit of operation. The farmer may or may not own the land he farms. In some cases, the farmer may not even farm his own holding. He may rent the land he works on from someone else and rents out any land which he owns to another farmer.

From the above definitions of farm and holding, one can notice that there are two separate roles which a person can have that of owner or that of operator. Ownership is a legal term denoting possession of a lot of land. Operation is an economic term indicating that a person is trying to produce something from the land. Hence, the term (d) 'owner-operator' means that the owner of the land himself is conducting economic activity on his own land or farm and the term (e) 'tenant-operator' denotes a person who is carrying out economic activity on a piece of land which does not belong to him but which is, in most cases rented from some else.

Once the definition of the above five terms is understood, the subsequent discussions can be followed without much difficulty.

CHAPTER II

DISTRIBUTION OF HOLDINGS AND FARMS

Distribution of Holdings

Generally, the holdings of the people interviewed consists of lots inside Block B. There are only four cases of holdings which include lots outside Block B. There are however five cases where holdings contain lots outside the Sawah Sempadan area. The majority of the holdings contain not more than two lots or six acres. Out of the total of 55 holdings in Block B, 67.27% of them do not contain more than one lot or three acres. This can be explained by the land policy adopted by the state government which allots only three acres of land to each farmer in Sawah Sempadan area. The cases where holdings exceed three acres are normally those of illegal transfers of land ownership which are not registered with the Land Office. In spite of the illegal land deals, not more than 80% of the holdings are more than six acres or two lots. All the lots in Block B are padi land. The five cases of holdings containing lots outside Sawah Sempadan are coconut and rubber lands, and they are between one and three acres. Tables 2.1 and 2.2 and graph A illustrate the above.

TABLE 2.1

DISTRIBUTION OF HOLDINGS BY NUMBER OF LOTS

Number of lots in B	No. of Lots outside B.	No. of Lots outside S. S.	Holdings	
			Number	Percentage
0.5	-	-	2	3.64
1.0	-	-	35	63.64
1.5	-	-	1	1.82
2.0	-	-	6	10.91
3.0	-	-	2	3.64
1.0	1.0	-	3	5.45
1.0	-	1.0	3	5.45
1.0	-	2.0	1	1.82
2.0	1.0	-	1	1.82
3.0	-	1.0	1	1.82
Total			55	100.00

TABLE 2.2

DISTRIBUTION OF HOLDINGS BY AREA

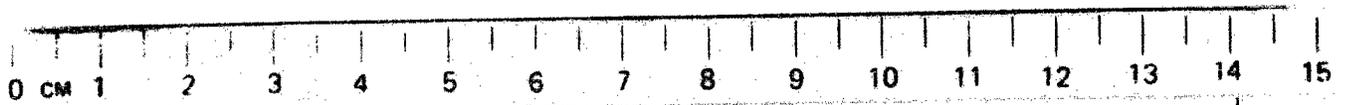
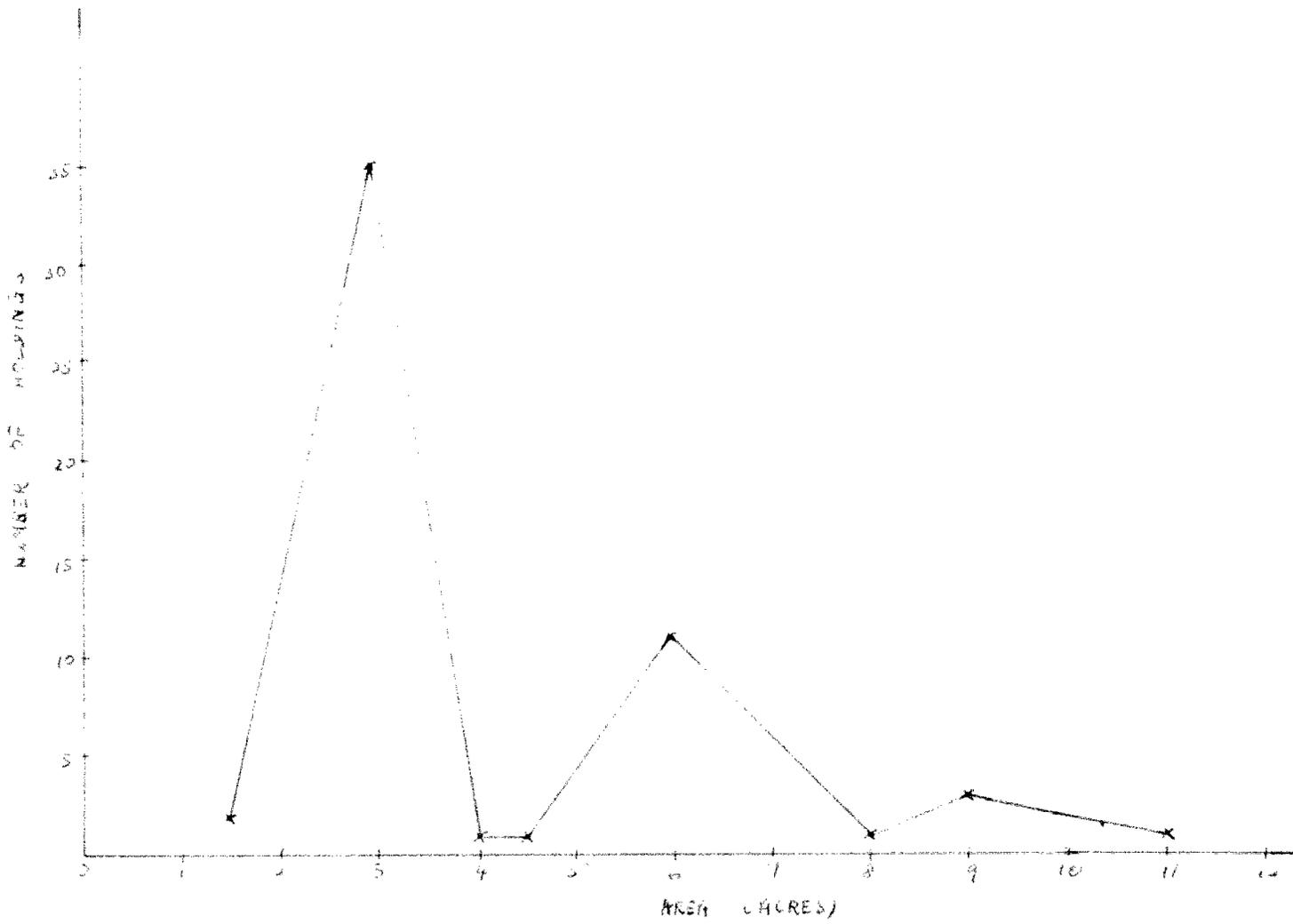
Area (Acres)	Holdings	
	Number	Percentage
1 - 1.9	2	3.64
2 - 2.9	0	0.00
3 - 3.9	35	63.63
4 - 4.9	2	3.64
5 - 5.9	0	0.00
6 - 6.9	11	20.00
7 - 7.9	0	0.00
8 - 8.9	1	1.82
9 - 9.9	3	5.45
10 - 10.9	0	0.00
11 - 11.9	1	1.82
Total	55	100.00

Distribution of Farms

Table 2.3 gives the distribution of farms by number of lots. All the farms in the area under analysis are padi farms. It is evident that the majority of them are of one lot. They represent 68.33% of the farms in the area. There are however six farms that are between two to three lots in size. Nevertheless, they make up 10% of the total number. Out of the total of 60 farms in Block B 6.67% are of 0.5 lot each, and 1.67% of 1.5 lot. It is also clear from Table 2.3 that the majority of the farms do not consist of land outside Block B, except for eight cases in which five of them have land outside the Sawah Sempadan area. As for the remaining three cases they contain lots in the other blocks in Sawah Sempadan area. These eight exceptional cases make up 13.34% of the farms. This small figure may be due to the fact that most of the farmers are too poor

GRAPH A

DISTRIBUTION OF HOLDINGS BY AREA



to afford to operate other lots of land. Most of the lots of land outside the Sawah Sempadan area are, however, not padi land. They are mainly coconut or rubber lands in Sungai Buloh and Banting.

TABLE 2.3

DISTRIBUTION OF FARMS BY NUMBER OF LOTS

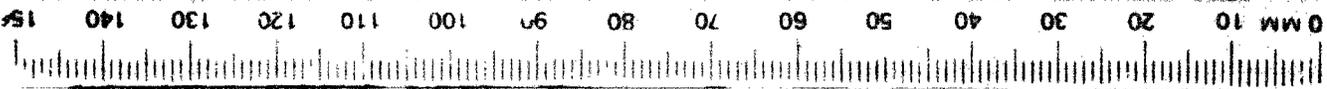
Number of lots in B	Number of lots outside B.	Number of lots outside Sawah Sempadan	Farms	
			Number	Percentage
0.5	-	-	4	6.67
1.0	-	-	41	68.33
1.5	-	-	1	1.67
2.0	-	-	5	8.33
3.0	-	-	1	1.67
1.0	1	-	3	5.00
1.0	-	1	3	5.00
1.0	-	2	1	1.67
3.0	-	1	1	1.67
Total	-	-	60	100.01

Table 2.4 shows the size of the farms in the area. However, these farms not only include land in Block B but also land outside the block. The majority or 68.33% of these farms are of three to four acres in size. A noticeable fact is that none of the farms are of two to three acres, or seven to eight acres, or ten to eleven acres in size. Nevertheless 16.67% of the farms are of six to seven acres in size and they are the second largest category of farms in the area. Some of these farms in this category contain land elsewhere. The largest farm owned by Haji Dahlan has eleven acres consisting of three lots in Block B and two acres of land in Banting. The distribution of acreage among farms in the area is comparatively uneven. This is clearly shown in graph B.

TABLE 2.4

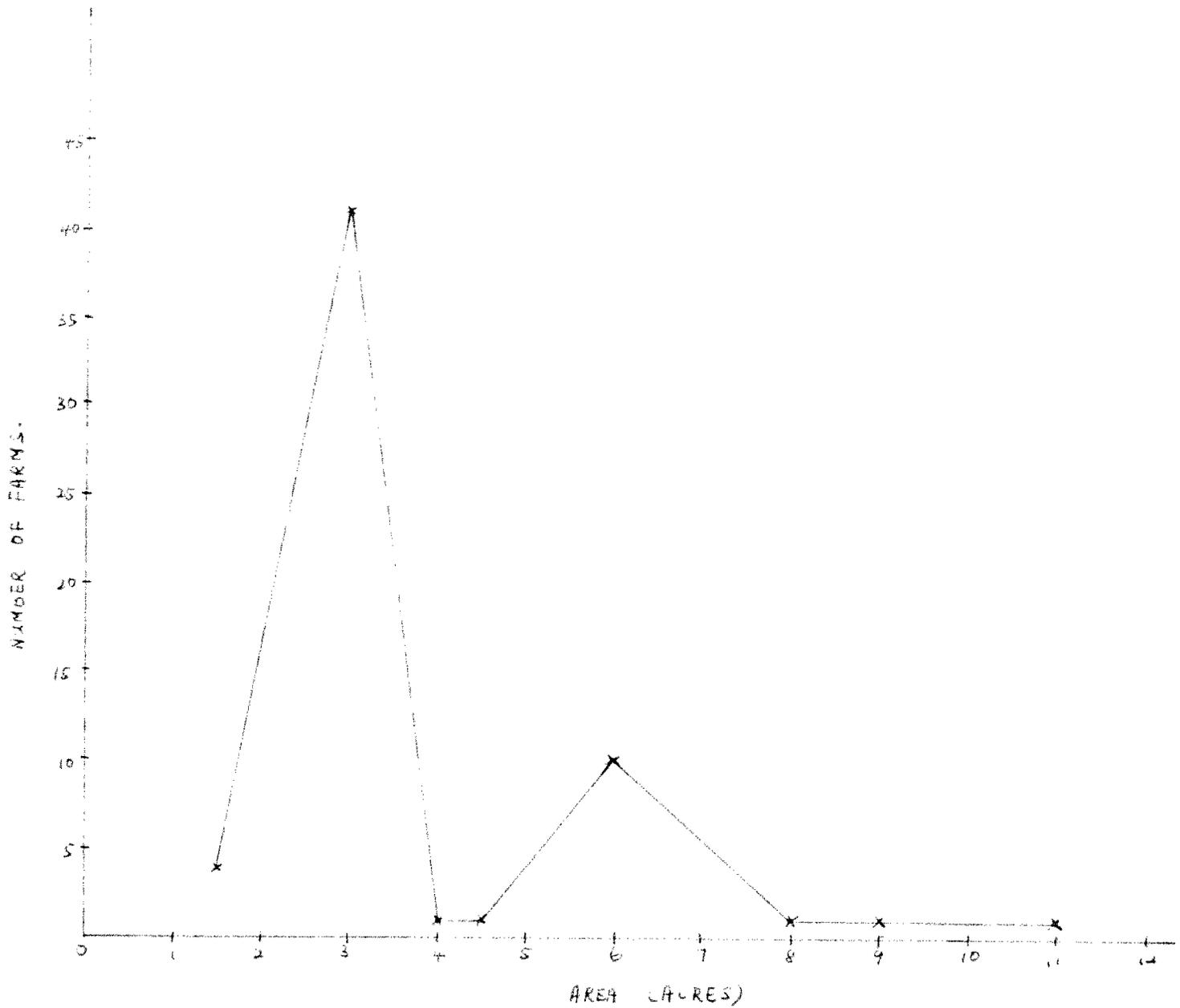
DISTRIBUTION OF FARMS BY AREA

Area (Acres)	Farms	
	Number	Percentage
1 - 1.9	4	6.67
2 - 2.9	0	0.00
3 - 3.9	41	68.33
4 - 4.9	2	3.33
5 - 5.9	0	0.00
6 - 6.9	10	16.67
7 - 7.9	0	0.00
8 - 8.9	1	1.67
9 - 9.9	1	1.67
10 - 10.9	0	0.00
11 - 11.9	1	1.67
Total	60	100.01



GRAPH B

DISTRIBUTION OF FARMS BY AREA



CHAPTER III

FRAGMENTATION OF HOLDINGS AND FRAGMENTATION OF FARMS

Fragmentation of Holdings

From the information derived from 55 holdings in Block B, there are 17 cases of fragmentation. Fragmentation can be defined as the possession by one single owner of two or more lots of land which are situated so far apart that they cannot be run economically as one unit. This should be distinguished from the word 'subdivision' which is the process of dividing one lot of land into several sub-lots. One can distinguish the degree of fragmentation from the following:-

- (a) Holdings containing lots of land in Block B.
- (b) Holdings containing lots in Block B, and lots in other blocks.
- (c) Holdings containing lots in Block B, and lots outside Sawah Sempadan.

Out of the total of 17 cases, nine of them are holdings containing fragmented lots in Block B. H19 for example, contains two lots - one lot (3653) from the middle section of the second row and another lot (3634) from the upper section of row three. These two lots are situated quite far apart from each other as can be seen from the holding map. As for the remaining eight cases, the location of the fragmented lots of these holdings is illustrated in Table 3.1.

There are however four cases of holdings that consist of lots in Block B and lots in other blocks, like Block A, C and I. Finally we come across four cases of holdings that contain lots in Block B and lots outside Sawah Sempadan. In such holdings, the owner may possess lots of land in Banting or Sungei Buloh. This third category shows us the greatest degree of fragmentation of holdings in this analysis.

Fragmentation of Farms

Out of the total of 60 farms in Block B, there can be found 15 cases of fragmentation. Generally we can distinguish three types of fragmentation that is:-

- (1) farms containing lots in Block B.
- (2) farms containing lots in Block B and lots in other blocks.

TABLE 3.1

LOCATION OF FRAGMENTED LOTS OF HOLDINGS
IN BLOCK B

Holding Number	Lot Number	Location of Lot in Block B
H9	3700	Row 1 - lower section
	3709	Row 2 - lower section
H10	3701	Row 1 - lower section
		Row 2 - lower section
H13	3630	Row 1 - upper section
	3657	Row 2 - middle section
H19	3653	Row 2 - middle section
	3634	Row 3 - upper section
H24	3694	Row 3 - lower section
	3697	Row 2 - lower section
H34	3658	Row 3 - middle section
	3663	Row 4 - middle section
	3670	Row 3 - middle section
H38	3710	Row 3 - lower section
	3706	Row 3 - lower section
	3699	Row 4 - lower section
H41	3620	Row 1 - upper section
	3621	Row 1 - upper section
H50	3679	Row 4 - middle section
	3711	Row 4 - lower section

(3) farms containing lots in Block B and lots outside Sawah Sempadan.

Under this first type we have seven cases. To illustrate this type of fragmentation of farms, we can refer to the Farm Map and Table 3.2.

TABLE 3.2

LOCATION OF FRAGMENTED LOTS OF FARMS
IN BLOCK B

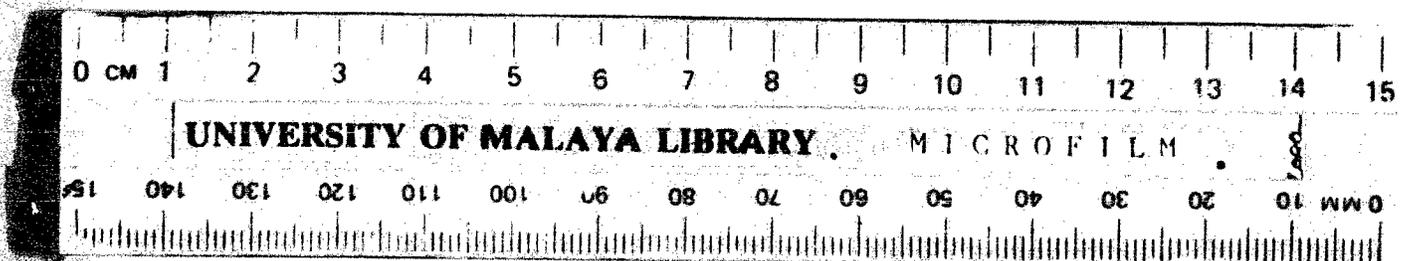
Farm Number	Lot Number	Location of lot in Block B
F10	3700	Row 1 - lower section
	3709	Row 2 - lower section
F11	3701	Row 2 - lower section
	3704	Row 1 - lower section
F19	3634	Row 3 - upper section
	3653	Row 3 - middle section
F20	3657	Row 2 - middle section
	3630	Row 2 - upper section
F25	3697	Row 2 - lower section
	3694	Row 3 - lower section
F41	3706	Row 3 - lower section
	3710	Row 3 - lower section
	3699	Row 4 - lower section
F44	3620	Row 4 - upper section
	3621	Row 4 - upper section

Under the second type, we have only three cases. In these cases, the farmer operates other lots in other blocks besides Block B. F4 for instance contain two lots, one lot (3644) in Block B, and another lot (3733) in block A.

Under the third type, there are five cases. In these cases, the farmers not only operate lots in Block B, but also other lots of land outside Sawah Sempadan. F39 for example contains three lots in Block B, (3678, 3655, 3659) and a two-acres lot in Banting.

Comparing the three types of fragmented farms that are given above, we can see that a farmer in type three in operating all the different lots of his farm will have to travel a greater distance than say a farmer under type one. In terms of time and energy wasted, type three is more intense. The farmer in this type not only has to travel

from lot to lot inside Block B but also to other areas outside Sawah Sempadan. Take F23 for example, the farmer, Abdullah bin Yusof has not only to operate three acres in Block B, but also three acres in Batu Sembilan, and two acres in Batu 14. It is evident that operation of such fragmented farms requires adequate means of transportation, for instance a bicycle or a motor cycle. But in spite of the adequacy, a considerable proportion of working hours is lost by a farmer in travelling about.



HOLDING MAP

				3620	H41		
				3621	H41		
				3622	H27	3623	H42
		2nd Row		3625	H28	3626	
		3624		3627	H29	3628	
		H12		3631	H30	3632	
1st Row		3630		3634	H19	3635	H43
3629	H1	3633	H14	3638	H31	3639	H44
3636	H2	3637	H15	3642		3643	H45
3640		3641	H16	3646		3647	
3644	H3	3645	H17	3650	H32/33	3651	H46
3648		3649	H18				
3652		3653	H19	3654		3655	H36
3656		3657	H13	3658	H34	3659	H36
3660		3661		3662		3663	H34
3664	H4	3665	H20	3666		3667	H47
3668	H5	3669		3670	H34	3671	H48
3672		3673	H21	3674	H35	3675	H49
3676		3677		3678	H36	3679	H50
3680	H6	3681	H22	3682		3683	
3684	H7	3685		3686		3687	H51
3688		3689	H23	3690	H37	3691	H52
3692	H7	3693		3694	H24	3695	
3696	H8	3697	H24	3698		3699	H38
3700	H9	3701	H10	3702		3703	
3704	H10	3705	H25	3706	H38	3707	
3708	H11	3709	H9	3710	H38	3711	H50
3712		3713		3714		3715	H53
3716		3717	H26	3718	H39	3719	H54
3720		3721		3722	H40	3723	H55

UPPER

MIDDLE

LOWER

Key

The lots with the same type of shading belong to one holding.

SAWAH SEMPADAN

BLOCK B
FARM MAP

4th Row

				3620	F44
				3621	F44
			3rd Row	3622	F28/29
				3623	F45
			2nd Row	3625	F30
				3626	
				3627	F31
				3628	
				3631	F32
				3632	
			1st Row	3634	F19
				3635	F46
				3638	F33
				3639	F47
				3642	
				3643	F48
				3646	
				3647	
				3650	F34/35
				3651	F49
				3654	
				3655	F39
				3658	F36
				3659	F39
				3662	
				3663	F50
				3666	
				3667	F51
				3670	F37
				3671	F52
				3674	F38
				3675	F53
				3676	
				3677	
				3678	F39
				3679	F54
				3682	
				3683	
				3686	
				3687	F55
				3688	
				3689	F24
				3690	F40
				3694	F25
				3695	
				3698	
				3699	F41
				3700	
				3701	F11
				3702	
				3705	F26
				3706	F41
				3707	
				3708	F12
				3709	F10
				3710	F41
				3711	F57
				3712	
				3713	
				3714	
				3715	F58
				3716	
				3717	F27
				3718	
				3719	F59
				3720	
				3721	
				3722	F43
				3723	F60

UPPER

MIDDLE

LOWER

Key

The lots with same kind of shading belong to the same farm.

CHAPTER IV

LAND OWNERSHIP AND OPERATION

Land in Sawah Sempadan was opened up and settled before World War II. Officially, only those who have no land could apply for land in Sawah Sempadan. Each person was given a three-acres lot and T.O.L. (Temporary Occupation Licence) and A.A. (Approved Application) licences were issued to the settlers.

Not much information is available as regards the land titles in Block B. This is because in the interviews that were carried out, the owners of the lots in Block B could not produce the land titles to be examined by the interviewer. But from land rent receipts and Land Office records, some information regarding land titles is obtained. This is shown in Table 4.1

TABLE 4.1

TYPES OF LAND TITLES IN BLOCK B	
Types of Land	Number of Lots
T. O. L.	3
A. A.	31
No data	34
Total	68

Cases of Joint Ownership

Before we proceed to discuss the cases of joint-ownership we have to define 'joint-ownership'. Joint ownership occurs when there is a lot of land owned by two or more persons and each person has an undivided share in the land title.

From the information derived, we find that there are only two cases of joint ownership that is lot 3649, and lot 3711. In general, the owners are related to one another, that is they are either brothers or brothers and sister.

Now we will take each case individually and examine it carefully. The first case that we come across is lot 3649. In this case the owners are Abibah binte Hashim and her two younger brothers.

Originally, the owner of this lot was Hashim bin Manag, their father. But he passed away, and the land was handed down to his three children. But the land title has not yet been transferred to the names of the present owners. Therefore, legally, the land is still registered under the father's name. But in actual fact, we know that the present owners are Abibah binte Hashim and her two brothers. The three of them operate this lot, and share the harvest among themselves.

The second case of joint ownership is that of lot 3711. There are two brothers who own this lot of land that is Falir bin Daud and Achil bin Daud. In the Land Office Records, this lot is still registered under the father's name that is Daud bin Japir. This means that the title has not yet been transferred to the names of the two brothers who are the present owners. In this case, only Achil operates this lot of land. Falin owns and operates another lot in the block (lot 3679). However both of them live in the same house on 3679.

Cases of Joint Operation

Joint operation occurs when two or more persons operate on the same lot of land. From the data available we can find five cases of joint operation in Block B, and these are lot 3622, lot 3649, lot 3706, lot 3635 and lot 3684. Lot 3649 have already been discussed under cases of joint ownership. So here we will only pay particular attention to the remaining four cases.

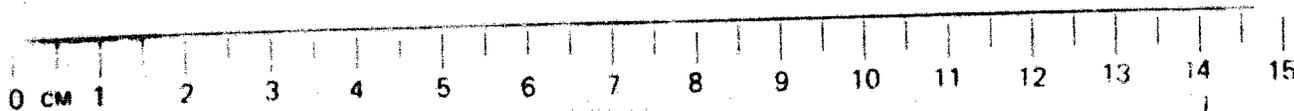
The first case that come to our attention is lot 3622. The owner of this lot is Johari bin Ibrahim who lives in Klang. He rents this lot of land to two tenant operators - Rokaiyah binte Ali-sham and Harun bin Hashim. Both of them jointly operate this lot. There are two houses on this lot, Rokaiyah staying in one of them, and Harun living in the other, with his family. Rokaiyah however, is assisted by her son in cultivating the land, and he and his wife and children stay with her in the house. As for the harvest, Rokaiyah and Harun share it between them. Although the exact proportion is not known it is possible that they share it equally between them.

The second case is that of lot 3706. Anoi bin Haji Jagat is the owner. Anoi, however, does not stay in the two houses that are found on this lot. Instead he lives in a house in B3710. The two sons of Anoi stay in the two houses together with their families. As for the padi that is harvested, it is shared by Anoi and his two sons.

The next example of joint operation is that of lot 3635. Here the owner is Udir bin Haji Mansor who lives in Kuala Lumpur. The land is jointly operated by his two sons who share the harvest between them. The sons do not stay on this lot. Instead they live somewhere else.

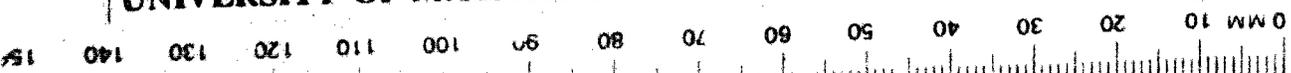
Finally, we have lot 3684, the last case of joint-operation.

The owner of this lot is Hussin bin Salleh, who stays in a house on lot B3692. He and his son, Hassan jointly operate this lot. Hassan lives with his wife and children in the house found on this lot. As for the harvest, it is shared between Hussin bin Salleh and his son Hassan.



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CHAPTER V

PADI PRODUCTIVITY OF FARMS

Block B is situated in the far end of Sawah Sempadan area nearest to the headworks and main irrigation canal. In comparison with the 22 other blocks which make up Sawah Sempadan, the fertility of Block B is generally considered to be low. This is possibly due to the infertility of the soil of the block. While blocks L to W were the first to be opened up, blocks A to F were the last blocks to be settled, and they formed part of the fringe alienation scheme. Because the thick layer of peat underlying the Tanjong Karang area has to be drained in order to allow padi cultivation, the government has embarked on an intensive drainage and irrigation scheme. This project was started about 25 years ago, and is still going on. Blocks L to W were the first to be drained. As a result not much peat is left in these blocks today. The relatively thick layer of peat underlying Block B may be a factor contributing to the low productivity of the block. Because of the relative infertility of the soil and the lack of use of use of fertilisers by the farmers, double cropping of padi is not practised in the block.

Possibly because of the nature of the soil, we find about seven varieties of padi being grown in the block. They are:-

- (1) Sri Raja
- (2) Radin Puteh
- (3) Radin Kuning
- (4) Radin China
- (5) Radin India
- (6) Radin Pahang
- (7) Pulut

Output by Variety

Broadly speaking, two distinctive patterns of padi cultivation can be observed in the block. About 55% of the farms tend to specialise in one variety, while the rest of them tend to cultivate two or more varieties. This feature is illustrated by Tables 5.1 and 5.2. The varieties being specialised upon are mainly Radin Puteh, Sri Raja

TOTAL PAGE 1000
 10 NUMBER OF COLUMNS

Variety of Peat	F1	F4	F5	F6	F7	F8	F9	F10	F11	F12	F13	F16	F17	F18	F19	F20	F21	F23	F24	F25	F26	F27	F31	F32	F33	F34	F35	F38	F39	F41	F42	F43	F44	F46	F47	F48	F49	F51	F52	F53	F54	F56	F57	F58	F59	F60					
1. Sri Raja																																																			
2. Radin Puteh																																																			
3. Radin Kuning																																																			
4. Sri Raja	200			500								400	300	1,300						900			200	240																											
5. Radin Puteh		300																																																	
6. Radin India																																																			
7. Sri Raja						450																																													
8. Radin China							500																																												
9. Radin Puteh																																																			
10. Radin Puteh																																																			
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23. Radin Puteh																																																			

TABLE 5.2

TOTAL PADI OUTPUT OF TENANT/OPERATOR FARMS BY VARIETY OF PADI - 1963/64. (IN HUNDREDS OF GANTANGS)

Variety of Padi	F2	F3	F14	F18	F22	F22	F20	F30	F36	F37	F40	F45	F50	F55
1. Radin Puteh	300	-	300	218	-	150	350	300	400	200	-	40	400	-
2. Sri Raja	-	-	-	-	-	-	-	-	-	-	-	-	-	350
3. Sri Raja Pulut Jerong Mas	-	130	-	-	-	-	-	-	-	-	-	-	-	-
4. Radin Puteh Pulut Jarak	-	-	-	-	410	-	-	-	-	-	500	-	-	-

and Radin Kuning. About 45% of the farms have mixed varieties which are mainly combinations of the above three specialised varieties with Pulut Hitam, Pulut Garoh, Radin China, Radin Pahang and other varieties of Pulut. Among the specialised varieties, Radin Puteh has the highest yield per acre. The highest yield can be found in F20 which has a yield of 266.66 gantangs per acre as compared to 133.33 gantangs per acre for Sri Raja and 200 gantangs per acre for Radin Kuning. In terms of average yield per acre we have 144.36 gantangs, 95.74 gantangs and 91.67 gantangs respectively for the above three varieties. The above averages take into consideration owner-operated farms and tenant-operated farms. As for those farms with mixed varieties, the combination of Sri Raja and Radin Pahang seem to give the highest yield per acre. This is present in F11 as shown in Table 5.3. Its yield of 366.33 gantangs per acre is the highest in the block. As further illustrated by Tables 5.3 and 5.4, the yield per acre of these mixed varieties farms can generally said to be higher than 132.92 gantangs per acre which is the average yield per acre of owner-operated and tenant-operated farms.

The most common combination of different varieties found in the block is that of Radin Puteh and Radin Kuning and the highest productivity from this combination comes from F39 which has a yield of 200 gantangs per acre. However, there are combinations of three varieties especially those of Radin Puteh with Sri Raja and Pulut. But the yield from this combination seems to be lower than the yield of combination of two varieties. This may be due to the infertility of soil and uneconomic combination of varieties.

TABLE 5.4

PRODUCTIVITY PER ACRE OF TENANT/OPERATOR FARMS BY VARIETY OF
PADI - 1963/64 (IN NUMBER OF GANTANGS)

Variety of Padi	F2	F3	F14	F15	F22	F28	F29	F30	F36	F37	F40	F45	F50	F55
1. Radin Puteh	100	-	100	$72\frac{2}{3}$	-	100	$233\frac{1}{3}$	100	$133\frac{1}{3}$	$66\frac{2}{3}$	-	$13\frac{1}{3}$	$133\frac{1}{3}$	-
2. Sri Raja	-	-	-	-	-	-	-	-	-	-	-	-	-	$110\frac{2}{3}$
3. Sri Raja Pulut Jarong Ras	-	110	-	-	-	-	-	-	-	-	-	-	-	-
4. Radin Puteh Pulut Garok	-	-	-	-	$136\frac{2}{3}$	-	-	-	-	-	$100\frac{2}{3}$	-	-	-

Output of Tenant-operated and Owner-operated Farms

In Block B, there are 46 owner-operated farms and 14 tenant-operated farms out of a total of 60 farms. Table 5.3 shows padi productivity of owner-operated farms for the 1963/64 season. The average yield per acre of owner-operated farms for the whole of Block B is 152.79 gantangs. However 28.27% of owner-operated farms have yields higher than the average figure. The majority of owner-operated farms have mixed varieties of padi, mostly combinations of radin and pulut. The highest yield per acre comes from F10 whose combination of Radin China with Pulut Garok gives a yield of 333.33 gantangs per acre while the least productive farms are those which specialise in one variety especially Sri Raja and Radin Kuning. Their lowest yield is only 50 gantangs per acre. Table 5.5 and graph C show the distribution of productivity per acre for owner-operated farms.

Table 5.4 shows the yield per acre of the fourteen tenant-operated farms in Block B. The average yield for these farms is 133.04 gantangs per acre, which is much lower than the average yield of owner-operated farms. Perhaps the reason is that not much fertiliser or capital is put into these farms due to the insecurity of tenure of tenant-operated farms. While the majority of owner-operated farms have mixed varieties of padi, 71.43% of the tenant-operated farms specialise in single varieties especially Radin Puteh. There are only three cases of mixed varieties among the tenant-operated farms. The most productive of these tenant-operated farms seem to be those which grow Radin Puteh. This is illustrated in F29 in Table 5.4. Its yield is 133.33 gantangs per acre. Table 5.6 and graph D show the distribution

TABLE 5.5

PADI PRODUCTIVITY PER ACRE BY OWNER-OPERATED
FARMS (1963/64)

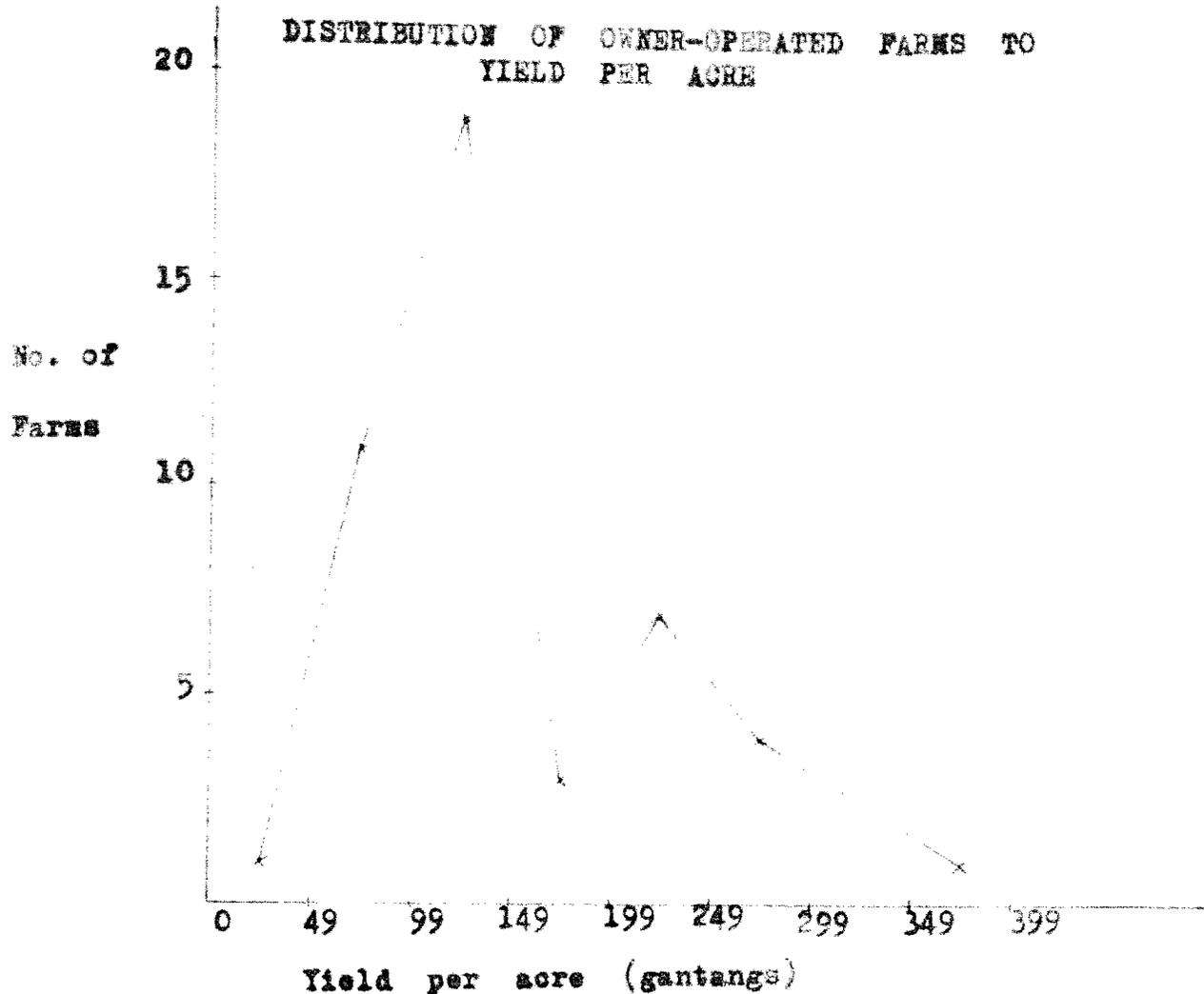
Productivity per acre (gantangs)	Number of Farms
0 - 49	1
50 - 99	11
100 - 149	19
150 - 199	3
200 - 249	7
250 - 299	4
300 - 349	-
350 - 399	1
Total	46

TABLE 5.6

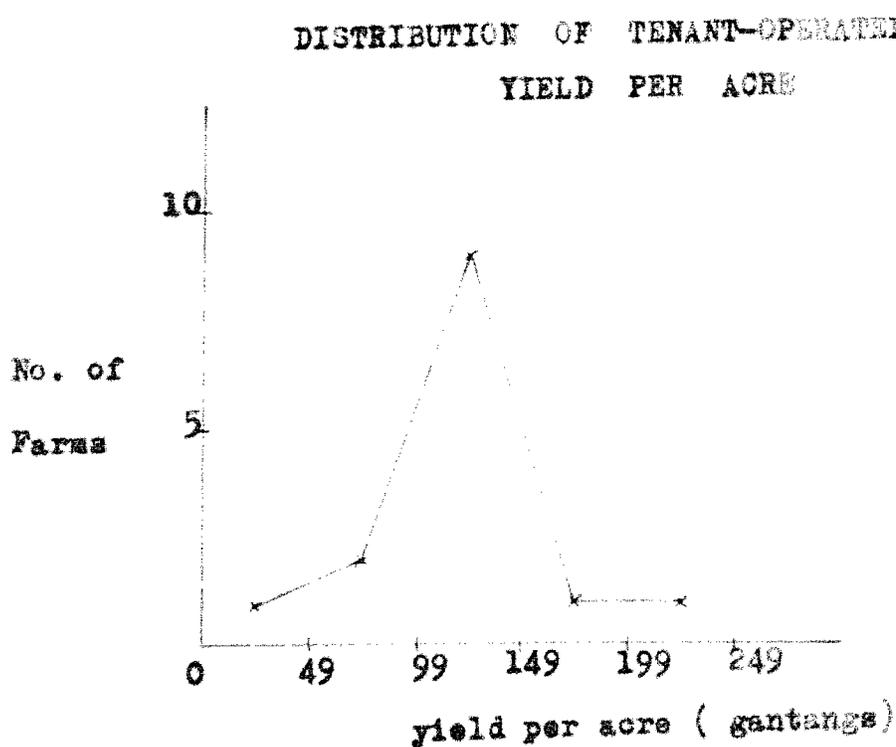
PADI PRODUCTIVITY PER ACRE OF TENANT-OPERATED
FARMS (1963/64)

Productivity per acre (gantangs)	Number of Farms
0 - 49	1
50 - 99	2
100 - 149	9
150 - 199	1
200 - 249	1
Total	14

GRAPH C



GRAPH D



of productivity per acre of tenant-operated farms.

A significant feature of productivity per acre in the block is that while productivity per acre of farms which specialise in one variety is highest in tenant-operated farms, productivity per acre of mixed varieties is highest among owner-operated farms. A study of Tables 5.3 and 5.4 will show this. The varieties of padi in both tenant-operated farms and owner-operated farms are generally similar. Hence difference in their productivity per acre does not seem to arise from different varieties. Rather more should be attributed to capital investment and farm management and operation.

Productivity by Location

Chart One illustrates productivity per acre by location. We have divided the block into four vertical rows using the canals as boundaries, and each row into three sections - upper, middle and lower. The upper section is nearest to the main distributary canal. We shall attempt an analysis of productivity by location under two different ways:-

(i) by rows

(ii) by sections

(i) The 67.5 lots in the block are not evenly distributed by rows. The following is the distribution.

Row 1 - 12 lots

Row 2 - 17.5 lots

Row 3 - 17.0 lots

Row 4 - 21 lots

While Row 1 has the least number of lots, its average yield per acre is the second highest in the block. This is illustrated by Table 5.8. Row 4 has the most number of lots, but its average yield per acre of 102.42 gantangs is the lowest in the block. Row 2 with an average yield of 163.87 gantangs is the highest in the block. In contrast Row 3 has an average yield of 131.28 gantangs per acre. A distinctive pattern may hence be noticed. Productivity in the block seems to decrease as we proceed eastwards from drain 1.

(ii) Table 5.10 shows the distribution of lots among the 3 sections. The upper section has 23.5 lots while the middle and lower sections have 21 and 23 lots respectively. Distribution of lots among sections as in rows

CHART I

PADI PRODUCTIVITY PER ACRE BY LOCATION IN BLOCK
(1963/64) IN NUMBER OF GANTANGS

Row 1		Row 2		Row 3		Row 4		
Farm No.	Yield/acre gantangs	Farm No.	Yield/acre gantangs	Farm No.	Yield/acre gantangs	Farm No.	Yield/acre gantangs	
Upper location	F1	66.66	F13	133.33	F28	100.00	F44*	200.00
	F2	100.00	F20	100.00	F29	233.33	F45	72.66
	F3	110.00	F14	100.00	F30	100.00	F46	76.66
			F15	72.66	F31	66.66	F47	33.33
			F16	133.33	F32	80.00	F48	50.00
			F17	100.00	F19	233.33	F49	113.33
			F18	66.66	F33	100.00	-	-
			F34	133.33				
F35	133.33							
Middle location	F4	100.00	F19	200.00	F36	133.33	F39*	100.00
	F5	82.33	F20	300.00	F37	66.66	F50	133.33
	F6	66.66	F21	200.00	F38	250.00	F51	100.00
	F7	166.66	F22	136.66	F39	100.00	F52	100.00
			F23	143.33			F53	100.00
							F54	133.33
							F55	116.66

CHART I

FABI PRODUCTIVITY PER ACRE BY LOCATION IN BLOCK
(1963/64) IN NUMBER OF GANTANGS

Row 1		Row 2		Row 3		Row 4		
Farm No.	Yield/acre gantangs	Farm No.	Yield/acre gantangs	Farm No.	Yield/acre gantangs	Farm No.	Yield/acre gantangs	
Upper Section	F1	66.66	F13	133.33	F28	100.00	F44*	200.00
	F2	100.00	F20	100.00	F29	233.33	F45	72.66
	F3	110.00	F14	100.00	F30	100.00	F46	76.66
			F15	72.66	F31	66.66	F47	33.33
			F16	133.33	F32	80.00	F48	50.00
			F17	100.00	F19	233.33	F49	113.33
			F18	66.66	F33	100.00	-	-
					F34	133.33		
				F35	133.33			
Middle Section	F4	100.00	F19	200.00	F36	133.33	F39*	100.00
	F5	82.33	F20	300.00	F37	66.66	F50	133.33
	F6	66.66	F21	200.00	F38	250.00	F51	100.00
	F7	166.66	F22	136.66	F39	100.00	F52	100.00
			F23	143.33			F53	100.00
							F54	133.33
						F55	116.66	
Lower Section	F8	150.00	F24	100.00	F40	166.66	F56	66.66
	F9	200.00	F25	166.66	F25	133.33	F41	133.33
	F10	166.66	F11	266.66	F41*	133.33	F57	116.66
	F10	366.33	F26	266.66	F42	100.00	F58	50.00
	F12	200.00	F10	333.33	F43	100.00	F59	50.00
			F27	133.33			F60	200.00

* These farms have two lots situated side by side

is not equal. Table 5.9 shows the average yield per acre among the sections. The lower section is the most productive of the three. The average yield per acre for its 23 lots is 163.62 gantangs. The middle section which has the least number of lots ranks second with 135.8 gantangs per acre. From Table 5.9 too, a distinctive pattern of productivity among sections can be noticed. Productivity tends to be higher as we move towards the main road. This pattern may be due to the different degrees of intensity of peat in the three sections. While in general terms we may say that the lower section is the most productive in the block, the generalisation may not be correct when we look into the lower sections of individual rows. This can be seen in Table 5.7. Of the four rows, only in rows one and two is the generalisation correct. In row 3, the most productive section is the middle section which has an average yield of 137.49 gantangs per acre. The same applies to row 4 whose middle section has an average yield of 119.9 gantangs per acre. The notion that the upper section is the least productive of the three sections is not true in the case of row 3, for its least productive is its lower section. Not considering these minute differences, the generalisation that productivity tends to increase as we move towards the road remains.

TABLE 5.7

AVERAGE YIELD PER ACRE BY ROWS AND BY SECTIONS

Sections	Average Yield Per Acre (gantangs)			
	Row 1	Row 2	Row 3	Row 4
Upper	92.22	100.85	131.11	91.00
Middle	101.41	195.40	137.49	111.90
Lower	216.60	211.10	126.66	102.78

TABLE 5.8

AVERAGE YIELD PER ACRE BY ROWS

Average Yield Per Acre (gantangs)

Row 1	Row 2	Row 3	Row 4
147.11	163.87	131.28	102.42

TABLE 5.9

AVERAGE YIELD PER ACRE BY SECTIONS

Average Yield Per Acre (gantangs)

Upper Section	Middle Section	Lower Sections
108.34	135.80	163.62

TABLE 5.10

DISTRIBUTION OF LOTS TO SECTIONS

Sections	Row 1	Row 2	Row 3	Row 4	Total
Upper	3	6.5	7	7	23.5
Middle	4	5.0	4	3	21.0
Lower	5	6.0	6	6	23.0
Total	12	17.5	17	21	67.5

CHAPTER VI

DISEASES AND PESTS BY FARMS, BY AREA, BY VARIETY AND BY LOCATION IN BLOCK

Types of Diseases and Pests, Farms and Area

Every one of the 60 interviewed farms is affected by either diseases or pests. The main type of disease is caused by worms, mainly of those caused by what the Malays called 'ulat pokok'. The pests are of two types that is rats and weeds.

According to the farmers, 'ulat pokok' attacks the padi plant when it is young, wilting the stalks, and eating up the leaves. These worms retard the growth of the plant, and leave the grains empty. The rats are not the ordinary household ones, but are of the bigger and stronger breed. The weeds are very thick, and deprive the padi plants of some of the minerals that are necessary for plant growth.

All the 60 interviewed farms are affected by the worms. Table 6.1 gives the number of farms and acreage affected by worms and pests. There are however five farms which are not only affected by worms but also rats and weeds. This explains why the total number of farms in Table 6.1 is greater than the actual figure of 60 farms. Of the five farms, three are affected by rats and two by weeds, out of which 202.5 acres are entirely affected by worms, 15 acres are affected by worms and rats, while only three acres are affected by worms and weeds. There is only one instance where a farm is affected by worms, rats and weeds, its acreage is three acres.

Diseases and Pests by Variety of Padi and by Location in Block

All the 24 various combinations of varieties of padi are affected by worms. The main varieties that is Sri Raja, Radin Puteh and Radin Kuning are entirely affected by worms while in a few cases of mixed varieties we have rats or weeds. For instance combinations of Radin Puteh with Pulut Garoh, or Pulut Soap are affected both by worms and rats. However this does not mean that Pulut Garoh and Pulut Soap are the main causes of rats in the area. Weeds seem to affect farms which have more than two varieties of padi for example F38 which has a combination of Radin Puteh, Radin Pahang and Pulut Serai. Table 6.2 gives a clearer illustration of the above cases.

Table 6.3 shows the types of diseases or pests and the area of their presence in the block. For simplicity, we have divided the area interviewed into three sections, mainly the upper, middle and

TABLE 6.1

DISEASES AND PESTS BY FARMS AND ACREAGE

Diseases and Pest	Number of Farms	Acreage
Worms (ulat pokok)	60	202.5 acres
Rats	3	15.0 "
Weeds	2	6.0 "

lower. It is noticeable that worms affect all the three sections, and all the four rows. In the middle section we have one case of weeds, rats and worms in the rows. All the cases of rats in the are found in the lower section. However the lower section of row 1 is not affected by rats. Perhaps the incidence of occurrence of rats and weeds is due to the time factor. The lower section is the earliest part of the block to be subjected to cultivation. From what has been noticed, it seems probable that the rats and weeds would venture into the middle and upper sections as time goes by, unless effective measures of control are taken.

TABLE 6.2

DISEASES AND PESTS BY VARIETY OF PADI

Variety of Padi	Number of Lots Affected		
	Diseases and Pests		
	Worms (ulat pokok)	Rats	Weeds
1. Sri Raja	7	-	-
2. Radin Puteh	22	-	-
3. Radin Kuning	4	-	-
4. Sri Raja	2	-	-
Radin Puteh			
5. Radin Puteh	1	-	-
Radin India			
6. Sri Raja	1	-	-
Radin China			
7. Radin Puteh	3	1	-
Pulut Garoh			
8. Sri Raja	1	-	-
Pulut Hitam			
9. Radin China	1	-	-
Pulut Garoh			
10. Sri Raja	1	-	-
Radin Pahang			
11. Radin Puteh	6	-	-
Radin Kuning			
12. Radin Puteh	2	1	-
Radin Pahang			
13. Radin Puteh	1	-	-
Pulut Siras			
14. Radin Puteh	1	-	-
Pulut Caharak			
15. Radin Puteh	1	-	-
Pulut Jarong Mas			
16. Sri Raja	1	-	-
Pulut Jarong Mas			
17. Radin Puteh	1	-	1
Radin Pahang			
Pulut Serai			
18. Radin Puteh	1	-	-
Radin China			
Sri Raja			
19. Radin Puteh	1	1	-
Sri Raja			
Pulut Soap			
20. Radin Puteh	1	1	-
Sri Raja			
Pulut Mingudo			
21. Radin Puteh	1	-	-
Sri Raja			
Pulut Raja Ber-			
sanding			
22. Radin Puteh	2	-	-
Sri Raja			
Pulut Hitam			

DISEASES AND PESTS BY VARIETY OF PADI

Variety of Padi	Number of Lots Affected		
	Diseases and Pests		
	Worms (ulat pokok)	Rats	Weeds
1. Sri Raja	7	-	-
2. Radin Puteh	22	-	-
3. Radin Kuning	4	-	-
4. Sri Raja	2	-	-
5. Radin Puteh	1	-	-
6. Radin India	1	-	-
7. Sri Raja	1	-	-
8. Radin China	1	-	-
9. Radin Puteh	3	1	-
10. Pulut Garoh	1	-	-
11. Sri Raja	1	-	-
12. Radin Pahang	1	-	-
13. Radin Puteh	6	-	-
14. Radin Kuning	2	1	-
15. Radin Puteh	1	-	-
16. Radin Puteh	1	-	-
17. Radin Puteh	1	-	-
18. Radin Puteh	1	-	-
19. Radin Puteh	1	-	-
20. Radin Puteh	1	-	-
21. Radin Puteh	1	-	-
22. Radin Puteh	1	-	-
23. Radin Puteh	1	-	-
24. Radin Puteh	1	1	1
25. Radin Puteh	2	-	-
26. Radin Puteh	1	-	-
27. Radin Puteh	1	-	-
28. Radin Puteh	1	-	-
29. Radin Puteh	1	-	-
30. Radin Puteh	1	-	-
31. Radin Puteh	1	-	-
32. Radin Puteh	1	-	-
33. Radin Puteh	1	-	-
34. Radin Puteh	1	-	-
35. Radin Puteh	1	-	-
36. Radin Puteh	1	-	-
37. Radin Puteh	1	-	-
38. Radin Puteh	1	-	-
39. Radin Puteh	1	-	-
40. Radin Puteh	1	-	-
41. Radin Puteh	1	-	-
42. Radin Puteh	1	-	-
43. Radin Puteh	1	-	-
44. Radin Puteh	1	-	-
45. Radin Puteh	1	-	-
46. Radin Puteh	1	-	-
47. Radin Puteh	1	-	-
48. Radin Puteh	1	-	-
49. Radin Puteh	1	-	-
50. Radin Puteh	1	-	-
51. Radin Puteh	1	-	-
52. Radin Puteh	1	-	-
53. Radin Puteh	1	-	-
54. Radin Puteh	1	-	-
55. Radin Puteh	1	-	-
56. Radin Puteh	1	-	-
57. Radin Puteh	1	-	-
58. Radin Puteh	1	-	-
59. Radin Puteh	1	-	-
60. Radin Puteh	1	-	-
61. Radin Puteh	1	-	-
62. Radin Puteh	1	-	-
63. Radin Puteh	1	-	-
64. Radin Puteh	1	-	-
65. Radin Puteh	1	-	-
66. Radin Puteh	1	-	-
67. Radin Puteh	1	-	-
68. Radin Puteh	1	-	-
69. Radin Puteh	1	-	-
70. Radin Puteh	1	-	-
71. Radin Puteh	1	-	-
72. Radin Puteh	1	-	-
73. Radin Puteh	1	-	-
74. Radin Puteh	1	-	-
75. Radin Puteh	1	-	-
76. Radin Puteh	1	-	-
77. Radin Puteh	1	-	-
78. Radin Puteh	1	-	-
79. Radin Puteh	1	-	-
80. Radin Puteh	1	-	-
81. Radin Puteh	1	-	-
82. Radin Puteh	1	-	-
83. Radin Puteh	1	-	-
84. Radin Puteh	1	-	-
85. Radin Puteh	1	-	-
86. Radin Puteh	1	-	-
87. Radin Puteh	1	-	-
88. Radin Puteh	1	-	-
89. Radin Puteh	1	-	-
90. Radin Puteh	1	-	-
91. Radin Puteh	1	-	-
92. Radin Puteh	1	-	-
93. Radin Puteh	1	-	-
94. Radin Puteh	1	-	-
95. Radin Puteh	1	-	-
96. Radin Puteh	1	-	-
97. Radin Puteh	1	-	-
98. Radin Puteh	1	-	-
99. Radin Puteh	1	-	-
100. Radin Puteh	1	-	-

TABLE 0.3

DISEASES AND PESTS BY LOCATION IN BLOCK

Section	Diseases and Pests											
	Names (ulat pakok)				Rate				Weeds			
	Row 1	Row 2	Row 3	Row 4	Row 1	Row 2	Row 3	Row 4	Row 1	Row 2	Row 3	Row 4
Upper	F1	F13	F28	F44*								
	F2	F20	F29	F45								
	F3	F14	F30	F46								
		F15	F31	F47								
		F16	F32	F48								
		F17	F35	F49								
		F18	F33									
Middle			F34									
			F35									
	F4	F19	F36	F39*								
	F5	F20	F37	F50								
	F6	F21	F38	F51							F38	
	F7	F22	F39	F52								
Lower		F23		F53								
				F54								
				F55								
	F8	F24	F40	F56		F24	F40			F24		
	F9	F25	F25*	F41				F41				
	F10	F11	F41*	F57				F41*				
	F11	F26	F42	F58								
F12	F10	F43	F59									
	F27		F60									

* These farms have two lots situated side by side

CHAPTER VII

VIEWS REGARDING WATER SUPPLY BY FARMS, AREA AND BY LOCATION

Views regarding Water Supply by Farms and Area

Of the 60 farms with a total acreage of 202.5 acres, 7 different views regarding the water supply during the last padi planting season were expressed. Table 7.1 gives a breakdown of the views according to number of farms and acres. Generally, we may say that the block receives the right amount of water at the right time. 75.56% of the total acreage under padi enjoys this benefit. Only 2.96% of the farmers say that they get the water too much and too early or too late and too little. The Table 7.1 also shows that the time factor is not the problem, rather it is the amount of water that the lots receive. 13.33% of the fields receive too much water at the right time.

Where the punctuality of the arrival of the water is concerned, water seems to arrive too late rather than too early in the planting season in cases where there are complaints regarding punctuality. Of the 8.14% of the farms which reported such incidences, 6.66% complain of late arrival of water. And when the water did arrive it was either too much or too little. Only 2.96% said that they received the right amount when it did arrive.

Since a farm may consist of a number of lots, there are two cases in the block where contrasting views were given by the farmer regarding the arrival and the amount of water he receives for each lot. An example is F10 which consists of two lots. One lot receives the right amount of water at the right time while the other receives too much at the right time. The other case is F39 which has three lots, two lots receive the right amount at the right time, while one lot receives too much at the right time.

Views regarding Water Supply by Location

We shall attempt to analyse the views expressed under this heading by two approaches:-

- (1) by row
- (2) by section

Table 7.2 reveals that the majority of the lots receive the right amount of water at the right time. A 100% is achieved in row

TABLE 7.3

VIEWS REGARDING WATER SUPPLY BY FARMS AND BY
AREAS

Views	Number of Lots	Number of Farms	Acreage	Percentage
Right time, right amount	51	45	153	75.56
Right time, too much	9	8	27	13.33
Right time, not enough	2	2	6	2.96
Too early, too much	1	1	3	1.48
Too late, too much	1.5	2	4.5	2.22
Too late, right amount	2.0	3	6.0	2.96
Too late, not enough	1.0	1	3.0	1.48
Total	67.5	62*	202.5	99.99

four where all twenty-one lots receive the right amount of water at the right time. A trend is noticeable in the expression of the above viewpoint when we study the relative percentages of Rows 3, 2 and 1. 73.53% of the farms in Row 3 express this view, while 65.72% is evident in Row 2 and 50% in Row 1. Hence we find that the rows that are nearer to the main distributary canal tend not to receive the right amount of water at the right time. This may probably be due to the gradient of the canals which bring in the water to the fields. Most of the complaints regarding the supply of water tend to be too much at the right time. This can be seen in the case of Rows 1 and 2 where 41.67% and 17.14% express views of too much water at the right time. The late arrival of water to certain lots in Row 3 seems to be the main grievance of the farmers there. 5.89% of the lots in this row tend to receive the right amount of water but too late in the planting season.

In the case of sections, another trend regarding water supply in the block is noticeable. The fields which are furthest away from

*There are only 60 farms but there are two farms having separate lots with different views on water supply.

TABLE 7.2

EXPRESSION OF VIEWS BY LOTS

Views Expressed	Number of Lots											
	Upper Section				Middle Section				Lower Section			
	Row 1	Row 2	Row 3	Row 4	Row 1	Row 2	Row 3	Row 4	Row 1	Row 2	Row 3	Row 4
Right time, right amount	1	3.5	4.5	7	2	3	2	6	3	5	6	6
Right time, too much	2	-	-	-	1	2	1	-	2	1	-	-
Right time, not enough	-	-	1.0	-	1	-	-	-	-	-	-	-
Too early, too much	-	1	-	-	-	-	-	-	-	-	-	-
Too late, too much	-	1	0.5	-	-	-	-	-	-	-	-	-
Too late, right amount	-	1	1.0	-	-	-	-	-	-	-	-	-
Too late, not enough	-	-	-	-	-	-	1	-	-	-	-	-

the main water headworks seem to have less grievances. Only 68.08% of the fields in the upper section receive the right amount of water at the right time as compared to 71.43% and 86.96% in the middle and lower sections respectively. While the main grievance in the upper section is that water supply tend to come too late during the planting season, the middle and lower sections complain of too much water at the right time. This may be due again to the alignment of the canals, and inefficiency of the canal locks. Tables 7.3 and 7.4 give illustrations of the above views expressed by the farmers.

TABLE 7.3

EXPRESSION OF VIEWS BY ROWS

Views	Percentage			
	Row 1	Row 2	Row 3	Row 4
Right time, right amount	50.00	65.72	73.53	100
Right time, too much	41.67	17.14	5.88	-
Right time, not enough	8.33	-	5.88	-
Too early, too much	-	5.72	-	-
Too late, too much	-	5.72	2.88	-
Too late, right amount	-	5.72	5.88	-
Too late, not enough	-	-	5.88	-
Total	100.00	100.00	100.00	100.00

TABLE 7.4

EXPRESSION OF VIEWS BY SECTIONS

Views	Percentage		
	Upper Section	Middle Section	Lower Section
Right time, right amount	68.08	71.43	86.96
Right time, too much	8.51	19.05	13.04
Right time, not enough	4.26	4.76	-
Too early, too much	4.26	-	-
Too late, too much	6.38	-	-
Too late, right amount	8.51	-	-
Too late, not enough	-	4.76	-
Total	100.00	100.00	100.00

CHAPTER VIII

OTHER CROPS

Besides padi, eleven other types of crops are grown in Block B. They are bananas, coconuts, tapioca, maize, other fruits like langsung and chikus, yams, kapas, sugar cane, sweet potatoes, vegetables and mengkuang. This is illustrated in Table 8.1.

TABLE 8.1

OTHER CROPS

Crops	Frequency of Crops in Farms
Bananas	43
Coconuts	32
Tapioca	20
Maize	19
Other Fruits	19
Yams	13
Kapas	6
Sugar Cane	5
Sweet Potatoes	3
Vegetables	2
Mengkuang	1
Total*	163

*The total figure for the table does not equal to the actual number of farms in Block B due to the fact that the farms have more than one crop. There are 60 farms in the area.

Bananas seem to be the most important crop other than padi in the block as 73.3% of the farms cultivate them. 55% of the farms have coconuts, while tapioca and maize have a percentage of 31.6 and 21.7 respectively. Other types of fruits like chikus and langsats are quite insignificant as 21.7% of the farms grow them. The percentage expressed in this chapter are not calculated according to the acreage the crops cover in the farms. Rather, it is the frequency of occurrence of these crops. Hence it is not surprising to find that a number of farms have only three or four plants. The type of crops grown here are typically those to be found in Malay areas. Therefore we find that a great proportion of the farms grow coconuts. In contrast to Chinese farming areas, only a small percentage of the farms in Block B grow vegetables.

As padi is the main crop in the area, partly because of the nature of the soil and the terrain of the area, and partly because of state legislation which compels the farmer to cultivate at least one padi crop a year, the area occupied by the other crops mentioned above is relatively insignificant. These crops are usually planted not to subsidise the farm income derived from padi but rather for home consumption, though in some cases, the surplus is sold in the weekly Monday market at Tanjong Karang.

CHAPTER IX

CONCLUSION

In the course of the survey 64.9% have been interviewed out of a total of 104 lots in Block B. Of these 67.5 lots, we have 60 farms out of which 46 of them are owner-operated while 14 of them are tenant-operated. Out of a total of 67.5 lots that are interviewed we find that in 37.5 lots the names of the present owners do not tally with the names in the Land Office Records. It can be explained in this way. Originally, each person was given a three-acre lot for padi. Through time, land was handed down from the parents to the children. Renting out or selling half of the lot or even one lot occurred, and subdivision between father and son also took place. Now it is not uncommon to find that one lot is being shared by father and son, or by two brothers, or half the lot owned by another farmer, or the lot being rented to another farmer. Officially, renting, subdividing and sale of land among the farmers is not allowed. But this took place in Sawah Sempadan all the same. However the new owners who bought the land from other farmers did not register their names in the Land Office because this was not legally permissible.

In general, Block B can be said to a poor area. Its average yield per acre of 132.92 gantangs is considered to be low. About 25% of the farms have yields below 100 gantangs per acre.

This low yield can be attributed to the infertility of the soil, the smallness of the lots, and the severe worm attacks that were prevalent in the last season. These worms called 'ulat pokok' in Malay eat away the padi stalk and leave the grains empty. As a result, the harvest last season is lower than it ought to be if there were no attacks of worms. In many cases, the farmers complain that the amount of padi harvested last season is not enough to feed their families which may consist of eight or nine people.

As mentioned in Chapter Five earlier, the layer of peat is still thick in certain parts of the block especially near the head-works. Productivity here is relatively lower than in the other areas. To remove this layer of peat, drainage and dredging is necessary. Work of this nature involves heavy capital investment, and it is only the Drainage and Irrigation Department that has the resources and technology to do it. Perhaps their work can be intensified with the coming of the First Five Year Malaysian Plan. In addition to projects carried out by the government, the settlers have also a part to play. They have to dig their lots, and burn the peat repeatedly. However this process will involve a great amount of time and energy which most of the farmer in Block B cannot afford. This may perhaps be due to

their low income resulting in under-nourishment, and lack of energy.

Low productivity in Block B can also be attributed to fragmentation and sub-division of the farms. As most of the lots are seldom more than three acres in size, the use of machinery in the cultivation of padi is not really economic. Moreover, the time involved by a farmer in travelling from one lot to another in case of fragmented farms is relatively heavy; thus resulting in a loss of a great number of labour hours per year, which could be otherwise put to other economic activities.

Solution to the above problem may perhaps come in the form of land legislation involving a revolution in the present structure of land ownership, eradicating fragmentation and giving the farmers more land. However, the above suggestion cannot be realised in a short period of time, for it involves not only a revision of state legislation but also a reform in the cultural background of the inhabitants.

Low productivity has been the main cause of low income. Because of low income, there is low capital investment in the farms. Moreover in cases of tenant-operated farms, the question of insecurity of tenure hinders the question of investment in these farms. Hence we see a cycle, low productivity giving rise to low incomes; low income giving rise to low capital investment.

From the above narration, one would notice that there is a great deal to be done in Block B if the inhabitants were to be improved economically. The improvements may come through projects in our rural development plans but the inhabitants have also to play a part. The government can only provide the necessary stimulants to economic growth, like giving them better irrigation facilities and technical advice. The inhabitants on the other hand must have the will to improve themselves economically and to sustain the spirit of economic growth.

APPENDIX I

FARM LIST

Farm No.	Farmer's Name	Lot in B	Lots outside B
1	Ibos bin Hassan	3629	
2	Jumit bin Hj. Yusof	3636	
3	Ariffin bin Hamid	3644	
4	Adimin bin Ahmad	3664	A 3733 - 3 acres
5	Samad bin Abdullah	3668	Kg. Baru - 1 acre
6	Shamsiah bt. Mohd. Nor	3680	
7	Hussin bin Salleh	3684	C - 3 acres
8	Hussin bin Salleh	3692	
9	Aishah bt. Iahak	3696	
10	Abdul Majid bin Omar	3700 3709 3701	
11	Kassis bin Abdul Rahman	3704	
12	Hj. Jamrah bt. Haji Abas	3708	
13	Disandong bt. Yisar	3624	
14	Ahmad bin Halib	3633	
15	Ahmad bin Lantah	3637	
16	Fatimah bt. Ali	3641	
17	Aminah bt. Halib	3645	
18	Abibah bt. Hashim	3649	
19	Oeman bin Toh Halus	3634 3653	
20	Saleh bin Ali Adam	3657 3630	
21	Jumri bin Haji Hussin	3665	
22	Bakir bin Jaafar	3673	

Farm No.	Farmer's Name	Lot in B	Lots outside B
23	Abdullah bin Yusof	3681	Batu 9 - 3 acres Batu 14 - 2 acres
24	Haji Minah bt. Setiar	3689	
25	Samir bin Dollah	3697 3694	
26	Haji Hussin b. Hj. Mahmud	3705	
27	Musa bin Halim	3717	
28	Rokaiyah bt. Alisham	3622 1 1/2 acres	
29	Harun bin Hashim	3622 1 1/2 acres	
30	Tukachil	3625	
31	Sebran b. Hj. Sulaiman	3627	
32	Masir bin Hj. Abu Bakar	3631	
33	Udir bin Ali Adam	3638	
34	Ahmad bin Halib	3650 1 1/2 acres	
35	Sabran	3650 1 1/2 acres	
36	Yusof bin Hj. Talib	3658	
37	Sayera bin Emas	3670	
38	Sani bin Daud	3674	
39	Haji Dahlan	3678 3655 3659	Kg. Banting - 2 acres
40	Selamat	3690	
41	Anoi bin Haji Jagat	3706 3710 3699	
42	Idris bin Haji Hussin	3718	
43	Ajam bin Abdul Latif	3722	
44	Jalini bin Haji Enang	3621 3620	
45	Liang bin Hj. Mansor	3623	
46	Sons of Udir Hj. Mansor	3635	Block I - 3 acres

Farm No	Farmer's Name	Lot in B	Lots outside B
47	Durani bin Ogong	3639	
48	Sabir bin Samad	3643	
49	Sadan bin Enang	3651	
50	Emas bin Hj, Boasan	3663	
51	Japri bin Karim	3667	Sungei Buloh - 3 acres
52	Agos bin Sapri	3671	
53	Asmonik bin Japri	3675	
54	Fabir bin Daud	3679	
55	Achil bin Asad	3687	
56	Mohd. Tahil bin Ali	3691	Banting - 3 acres
57	Achil bin Daud	3711	
58	Sabran bin Morani	3715	
59	Siti bt. Tahil	3719	
60	Mohd. Noor bin Ohmad	3723	

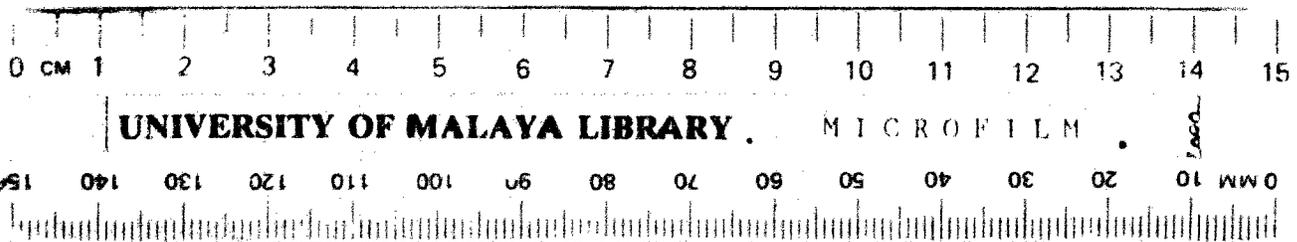
APPENDIX II

HOLDING LIST

Holding No	Owner's Name	Lots in B	Lots outside B
1	Ibos bin Hassim	3629	
2	Bahar bin Omar	3636	
3	Hassah bin Hj. Dorayak	3644	
4	Adirimin bin Ahmad	3664	Block A - 3733
5	Samad bin Abdullah	3668	Baru - 1 acre
6	Shamsiah bt. Mohd. Nor	3680	
7	Hussin bin Salleh	3684 3692	Block C - 3 acres
8	Aishah bt. Isak	3696	
9	Abdul Majid bin Omar	3700 3709	
10	Kasim bin Abdul Rahman	3701 3704	
11	Hj. Jannah bt. Hj. Abas	3708	
12	Diaandong bt. Yimar	3624	
13	Salleh bin Ali Adam	3630 3657	
14	Sadan bt. Hj. Asiz	3633	
15	Arboryah bt. Kasim	3637	
16	Fatimah bt. Ali	3641	
17	Aminah bt. Halib	3645	
18	Hashim bin Manag	3649	
19	Osmen bin Tohalus	3634 3653	
20	Jusri bin Hj. Hussin	3665	
21	Hj. Mohd. Salleh	3673	

Holding No.	Owner's Name	Lots in B	Lots outside B
22	Abdullah bin Yusof	3681	Batu 9 - 3 acres Batu 14 - 2 acres
23	Haji Minah	3689	
24	Samir bin Dolah	3694 3697	
25	Hj. Hussin bin Hj. Mahsud	3705	
26	Musa bin Halus	3717	
27	Johari bin Ibrahim	3622	
28	Tukachil	3625	
29	Sabran bin Hj. Sulaiman	3627	
30	Masir bin Hj. Abu Bakar	3631	
31	Udir bin Ali Adam	3638	
32	Ahmad bin Halib	3650	
33	Sobran	3650	
34	Abdullah bin Hj. Maisin	3658 3663 3670	
35	Samir bin Daud	3674 3655	
36	Hj. Dahlan bin Haji Sulaiman	3659 3678	Banting - 2 acres
37	Ajil bin Jelani	3690	
38	Anoi bin Haji Jagat	3710 3706 3699	
39	Idris bin Hj. Hussin	3718	
40	Ajam bin Abdul Latif	3722	Block I - 3 acres
41	Jelini bin Hj. Enang	3620 3621	
42	Anoi bin Kadir	3623	
43	Udir bin Hj. Mansor	3635	Block I - 3 acres
44	Durani bin Ogong	3639	
45	Sabir bin Samad	3643	
46	Sadan bin Enang	3651	
47	Japri bin Karim	3667	Sungai Buloh - 3 acres

Holding No.	Owner's Name	Lots in B	Lots outside B
48	Agos bin Sapri	3671	
49	Asmonik bin Japri	3675	
50	Fabir bin Daud	3679 3711	
51	Ejak bin Daud	3687	
52	Mohd. Tahil bin Ali	3691	Banting - 3 acres
53	Saban bin Marani	3715	
54	Siti bt. Tahil	3719	
55	Mohd. Noor bin Onmad	3723	



APPENDIX III

LAND OFFICE RECORDS

Lot Number	Owner's Name
3629	Bachik bin Haji Mansor
3636	Bakar bin Omar
3644	Hamsah bin Haji Dorayak
3664	Chiki bt. Musa
3668	Samad bin Abdullah
3680	Omar bin Ibrahim
3684	Hussin bin Haji Salleh
3692	Salleh bin Haji Masir
3696	Haji Hamid bin Samat
3700	Card missing
3704	Kassim bin Abdul Rahman
3708	Haji Jamrah bt. Haji Abas
3624	Sapri bin Samat
3630	Jamriah bin Abdullah
3633	Sadam bt. Haji Aziz
3637	Arbaryah bt. Kassim
3641	Fatimah bt. Ali
3645	Ismail bin Ali
3649	Hashim bin Manag
3653	Othman bin Tohalus
3657	Card missing
3665	Juari bin Anjong
3673	Majid bin Mat Usin
3681	Dolah bin Usop
3689	Haji Aminah bt. Hj. Mustiar
3697	Samin bin Dollah
3701	Norkiah bt. Napiah
3705	Haji Husin bin Haji Mahmud
3709	Card missing
3717	Karim bin Mutarip
3622	Johari bin Ibrahim
3625	Amat bin Omar
3627	Sabran bin Hj. Sulaiman
3631	Mariah bt. Haji Bakar
3634	Salabiah bt. Haji Mansor
3638	Musa bin Manab
3650	Sabarlah bt. Rais

3658	Abdullah bin Haji Mohd. Yasin
3670	Saerah bt. Imas
3674	Haji Dohlan bin Haji Sulaiman
3678	Haji Dohlan bin Haji Sulaiman
3690	Achil bin Jalani
3694	Abdul Rahman bin Dorayah
3706	Anoi bin Jangat
3710	Ijoh bin Jagat
3718	Idris bin Haji Husin
3722	Ajam bin Haji Abdul Latif
3620	Jailani bin Haji Arang
3621	Jailani bin Haji Arang
3623	Kardi bin Haji Mansor
3635	Udin bin Haji Mansor
3639	Basran bin Dorani
3643	Haji Sabran bin Haji Abdullah
3651	Shahdan bin Anang
3655	Abas bin Haji Ismail
3659	Haji Dahlan bin Haji Sulaiman
3663	Imas bin Haji Abu Hassan
3667	Japri bin Dolkarisu
3671	Agos bin Japri
3675	Musik bin Japri
3679	Tokachil bin Japri
3687	Johari bin Haji Saman
3691	Salleh bin Haji Masir
3699	Huri bin Haji Daud
	Muni bin Haji Daud
3711	Daud bin Japri
3715	Johari bin Jahal
3719	Ahmad bin Johari
3723	Lailan bt. Abdul Jahal

T.K. S.S.:SURVEY OF LAND BY BLOCK

 lot No. Block Date Place of interview

 farm Holding Interviewer Interviewee

Land not cultivated 1963/4

No interview because owner/operator cannot be located

Is there a dwelling on the lot? Yes/No

Owner of piece Residence on land/other

Operator on piece Residence on land/other

Who lives in the house? Owner/Operator/Other

Check whichever is relevant:

(a) Owner operates & lives on land

(b) Owner operates land BUT lives elsewhere

(if so state place of owner's house

(c) Operator lives on land but does not own the land

state rent paid to owner 1963/4 season

(d) Operator does not live on land & does not own land

state rent paid to owner 1963/4 season

This is a case of co-ownership (check for Re-visit)

This is a case of joint-operation (check for Re-visit)

Variety of padi planted 1963/4

No padi planted 1963/4

Quantity of padi harvested

method of harvesting tuai/sabit

Was the total harvested this year more/less/same as last year
 (give quantities if possible)

State explanation, if possible

Was there any pest/disease on this land which affected crop this year?

When crop was growing was water supply: (a) right time/too early/too late

(b) right amount/too much/not enough

What other crops are grown on this land in 1964: bananas coconut

fruit kapas mangkuang maize (jagong)

keladi tobacco

What document can you examine:

Title: type _____ Date _____ Date of issue _____

Name _____

Area _____ Land Office Rent _____

Land rent receipt No. _____ Date _____ Area _____ Land Rent \$ _____ Water R.\$ _____

Other _____

No document available

Title has not been transferred to present owner's name . date of purchase _____

Does owner own other pieces of land in:

Location of Land

Area	Crop	Rented out/in	Name of Operator

S.Block _____ No. _____

T.K.(non S.S.) Kampong _____ Block _____ No. _____

on T.K.District _____ Kampong _____ Ref. _____

Does owner operate other pieces of land in:

Location of Land

Area	Crop	Rented out/in	Name of Operator

S.Block _____ No. _____

T.K.(Non S.S.)Kampong _____ Block _____ No. _____

on T.K.District _____ Kampong _____ Ref. _____

Does any member of owner's household own pieces of land:

Location of Land

Area	Crop	Rented out/in	Name of Operator

S.S.Block _____ No. _____

T.K.(non S.S.)Kampong _____ Block _____ No. _____

Non T.K.District _____ Kampong _____ Ref. _____

Does any member of household (living in this house) own and/or (operate as tenant farmer) any land other than this piece:

As Owner

Location of Land

Area	Crop	Rented out/in	Name of Operator

In S.S.Block _____ Ref. _____

T.K.(non S.S.)Kampong _____ Block _____ Ref. _____

Other districts:

District _____ Kampong _____ Ref. _____

As Operator

Location of Land

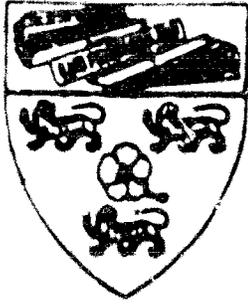
Area	Crop	Rented out/in	Name of Operator

In S.S. Block _____ Ref. _____

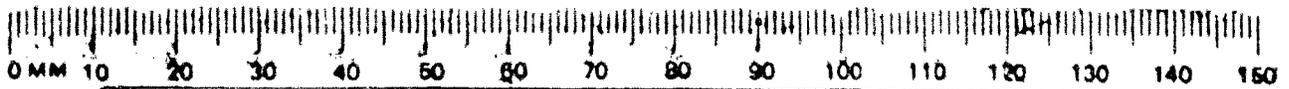
T.K.(non S.S.)Kampong _____ Block _____ Ref. _____

Other Districts:

District _____ Kampong _____ Ref. _____



TAMAT



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