CHAPTER IV

FRAGMENTATION OF HOLDINGS AND FARMS

Mention has frequently been made previously of the question of fragmentation. In this Chapter, we shall look into this question of fragmentation both with regard to holdings and farms. Strictly, the term 'fragmentation' refers to a situation which arises as a result of a holding or a farm being made up of more than one lot or sub-lot, and that these lots and/or sub-lots are scattered in location such as to lower the efficiency of the holding or the farm.

The prerequisite of 'lowering the efficiency' of the holding or the farm, as stated in the definition above, entails economic consideration. If there is a scatter of the lots and/or sub-lots of a holding or farm, but this scatter is not such that as to affect the efficiency of the holding or farm in any way, then there is no fragmentation. This economic consideration takes into account, the net returns of the many-lot holding or farm, with due attention to the extent of capital, the amount of labour, the stage of technology and such relevant considerations which are at the disposal of the holder or the farmer.

Scatteredness of the lots and/or sub-lots of a holding or farm may thus give rise to a state of fragmentation, where it lowers the efficiency of the unit concerned; but it is not necessary that fragmentation will definitely result from every case of scatteredness, for there are cases of scatteredness which do not affect the units' efficiency. In order to determine the presence of fragmentation and its extent, it is necessary, therefore, to examine all the above-mentioned factors.

Unfortunately, however, in this study we do not have access to all those relevant factors. All that the Questionnaire offers us is the scatter of lots and/or sub-lots of holdings and farms. As regards to returns, we have only these in the case of padi. All other necessary information are not available. To overcome this handicap - and to make the best out of the worst - we shall proceed to examine fragmentation from the single standpoint of "scatter" of lots and/or sub-lots only. At least, we can establish that where there is a scatter, there is already the basic potentiality of fragmentation. Fragmentation is here potential, though not necessarily consequential.

The scatter of lots and/or sub-lots may affect the efficiency of the holding or farm in the following manner. When there is a scatter, the farmer will have to move himself, his

equipment and his other materials such as seeds and fertilisers, to these places. Similarly, he will have to move the products of his farm from the places to his house or to the selling-point. The problem of transportation is thus posed. The magnitude of this problem can be imagined if it is remembered that the usual mode of transportation in the S.S. is by bicycles on narrow red-earth or mud tracks. There is also the factor of time and energy wastage. Sometimes, there may also be denial of passages. Again, the farmer may stay in one of these lots and/or sub-lots. Hence, the denial of on-the-spot care with regards to other lots and/or sub-lots, necessary as it is to safeguard the crop from pests such as birds, and theft. Some of these problems, however, have been partially solved by the farmer erecting a temporary dwelling in the padi lots and/or sub-lots; at the extra expenses, of course. Further, when lots and/or sub-lots are scattered, the unit of each is small, denying thereby the operation on a large and unbroken unit of operation.

Referring to Table 2.2 in Chapter I, we can see the state of fragmentation from the standpoint of scatter with regards to holdings. Column 1 shows that holdings range in the number of their lots and/or sub-lots in different location from one to five. Column 2 shows the fragmentation situation in so far as Block P alone is concerned, Column 3 in S.S., and Column 4 in all the relevant areas. It is obvious that as far as padi-land in Block P alone is concerned, only eight holdings or 7.2% of the total, are scattered, consisting of two lots and/or sub-lots each. However, as all are in Block P, the distance is not very great. This phenomenon is not very much altered when we consider the situation in the S.S. as a whole. Recalling that the holders in Block P have all their padi-land in the S.S., the picture presented by Column 3 represents thus the total situation of fragmentation of padi-holdings of holders in Block P. It can be seen that 97 holdings constituting 87.4% are made up of one lot or sub-lot each. They are thus not fragmented. Fragmentation may occur only with regard to the other 13 holdings which consist of two lots and/or sub-lots each, and another one which consists of three.

Column 4, depicting the situation in the S.S. as a whole, presents a different picture. Here, only 60 holdings making up the total of 54.1%, are not scattered. The rest are all scattered, ranging from two to five lots and/or sub-lots each. The most numerous are those of two-lot and/or sub-lot each, being 43 holdings or 38.7%. It has already been pointed out elsewhere that the holdings outside of S.S. consist of either coconut-land or kampong land. Hence, the fragmentation occurring here is mostly one with regard to holdings with lots and/or sub-lots held for different purposes.

Those important still is the consideration of fragmentation of farming. This can be seen from Table 2.4 in Chapter I. Taking Block P alone, there are 129 farms making up 94.2% of the total which consist of one lot or sub-lot, and hence not fragmented. The rest are fragmented, being scattered from two to four lots and/or sub-lots.

Considering the S.S. as a whole, still 124 farms, or 90.5% of the total, are of one lot or sub-lot. Only the remaining 13 farms are fragmented. Of these, 11 are of two lots and/or sub-lots, one of three, and one of four. This represents the total state of fragmentation in so far as all the padi farms of the farmers in Block P are concerned, for no farmer in this Block farms padi outside of the S.S. The extent of fragmentation of farming with regard to padi. Among the farmers in this Block is not thus very great.

This extent, however, increases when we consider the total situation of farms in all the relevant areas, and with regard to all crops, as shown in Column 4 of the Table. In this case, only 98 farms or 71.5% of the total are not fragmented, each made up of one lot or sub-lot. The rest are all fragmented; 29 farms of two lots and/or sub-lots, nine of three, and an extreme case of one of seven. The occurrence of fragmentation among 29.5% of the total farms can be considered as a problem of considerable magnitude. However, it must also not be forgotten that this fragmentation takes place within farms with their lots and/or sub-lots farmed with different crops.

The state of fragmentation of holdings and farms can be viewed from a different angle. Table 4.1 depicts the situation of fragmentation of holdings by showing the various combinations of lots and/or sub-lots that make up farms in their relevant locations. It can be seen again that 60 holdings are not fragmented, because each of these is made up of only one lot or sub-lot in Block P. The remaining 51 holdings, or 54.9% of the total, are fragmented, being made up each of more than one lot or sub-lot, scattered in different locations. Of these, two holdings constitude of two lots and/or sub-lots each in Block P alone. The rest are made up of lots and/or sub-lots in Block P in combination with one or more lots and/or sub-lots in the S.S. outside of Block P or in areas outside of S.S.

A significant characteristic appearing in this Table is that not one fragmented holding is made up of lots and/or sub-lots in everyone of the three locations indicated. All fragmented holdings constitute of lots and/or sub-lots in Block P in combination with those of either in the S.S. or in areas outside of S.S. This fact, to some extent, reduces the magnitude of fragmentation, as concentration of the holders is focussed only on two and not all the three locations. However, the Table also shows that there are more fragmented holdings which have - in addition to land in Block P - lots in areas outside of S.S. than lots and/or sub-lots in other blocks of the S.S. As the former locations are usually farther than the latter, fragmentation is to that extent augmented.

Table 4.2 shows the corresponding state of fragmentation with regards to farms. It shows that 90 farms farming 71.5% of the total are of one-lot, and hence unfragmented. The remaining 29.5% are all fragmented, ranging in lots and/or sub-lots from two to seven.

As is the case with regard to fragmented holdings, with the exception of one, all fragmented farms have lots and/or sub-lots in Block P in combination with those either in S.S. outside of Block P

TABLE 4.1

DISTRIBUTION OF HOLDINGS BY COMBINATION OF LOCATION OF LOTS AND/OR SUB-LOTS

Combination of Lots and/or Sub-Lots			Holdings	Percentage	Cumulative Percentage
Block P	S.S. Except Block P	Outside of S.S.			
1	-	-	60	54.1	54.1
1	1	-	7	6.3	60.4
1	-	1	34	30.6	91.0
1	-	2	1	0.9	91.9
1	-	3	1	0.9	92.8
2	-	-	2	1.8	94.6
2	1	-	1	0.9	95.5
2	-	1	4	3.6	99.1
2	-	3	1	0.9	100.0

TABLE 4.2

DISTRIBUTION OF FARMS BY COMBINATION OF LOCATION OF LOTS AND/OR SUB-LOTS

Combination of Lots and/or Sub-Lots			Farms	Percentage	Cumulative Percentage
Block P	S.S. Except Block P	Outside of S.S.			
1	-	-	98	71.5	71.5
1	1	-	4	2.9	74.4
1	-	1	23	16.8	91.2
1	1	1	1	0.7	91.9
1	-	2	3	2.2	94.1
2	-	-	2	1.5	95.6
2	-	1	4	2.9	98.5
3	-	-	1	0.7	99.2
4	-	3	1	0.7	99.9

or in areas outside of the S.S. The exceptional one has lots and/or sub-lots in all the three areas. Like that in the case of holdings, this fact reduces the extent of fragmentation of farms. Still, however, there are more lots and/or sub-lots outside of the S.S. than there are in other Blocks of the S.S. Hence, the greater distance involved.

It is obvious that the extent of fragmentation of the individual fragmented holding or farm varies according to individual circumstances. Other things being equal, a holding or farm made up of two lots and/or sub-lots is less fragmented than one made up of three or more. Again, the location of, the distance between, and the accessibility of those relevant lots and/or sub-lots may contribute to determine the extent of fragmentation. A holding two lots and/or sub-lots both of which are in Block P is less fragmented than one with one lot or sub-lot in Block P and another in a distant kampong. The coconut lots and kampong lots are actually situated at various places with varying distances and degrees of accessibility from Block P. This matter will be considered in detail in Chapter VII, when we analyse the location of lots and/or sub-lots.

There are many factors which are responsible for the existing state and extent of fragmentation. Most of these factors have already been discussed in connection with other problems. If we confine our attention to the situation in the S.S. alone, this phenomenon of fragmentation is intelligible in terms of the processes of the transfer of ownership of land and of tenancy, acting singly in some cases or collectively in others. This transfer of ownership - as has already been pointed out - may be affected through sale, inheritance or gift. And the transfer may be by lots intact, or by sub-lots. If the transfer is affected to someone who already holds the land in this area, this leads to fragmentation of his holding; and if he operates his fragmented holding himself, or causes someone else to operate it wholely, a fragmented farm ultimately emerges. Such is the case with Haji Hassan bin Singa, who initially holds lot 2854 in Block P, later adds to his holding lot 2861, and operates them both; while Amin bin Jalal, already holding lot 2993 in Block K, acquires one-half of lot 2789 in Block P, and operates both of them. Fragmentation in farming may also arise from tenancy, whereby a tenant acquires one or more lots and/or sub-lots to operate in adition to his own, or even whereby a landless tenant acquires two or more scattered lots and/or sub-lots - from one or different landlords - to operate. Akin to tenancy as a cause of fragmentation of farm is gift.

If we view the situation in all the relevant areas, few other factors emerge responsible. As all of these have already been dealt with at length elsewhere, they will only be indicated very briefly here. Firstly, the historical incident that most of the people concerned have already held and/or operated land in the nearby coconut-areas makes fragmentation of holdings and/or farms inevitable once they acquire and/or operate padi-land in the Block. Secondly, fragmentation is already the logical consequence of the Land Office's provision that for every lot of padi-land will be elienated elsewhere.

Finally, there is the marked tendency of the people to hold and/or operate cocoonut-land in addition to padi-land.

Rural economists express concern over fragmentation because this state of affairs may spell inefficiency in the ownership and operation of land. This inefficiency will only lead to low productivity, with poverty as its ultimate result.

Before we leave the question of fragmentation, however, two points on the concept of fragmentation in relation to the situation in Block P are worth our consideration here. We have already noted that it is unfortunately impossible for us to determine the existence and extent of fragmentation in this study - apart from that of the scatter of lots and/or sub-lots - owing to inadequacy of information available. Now, even if we know all these, we have yet to surmount another problem. We have to determine what is the optimum returns had there been no scatter in the lots and/or sub-lots of the relevant holdings and farms. Granted that we can establish this in one way or another, we have still to determine to what extent is the divergence of the real returns from the optimum ones actually due to the scatter and hence fragmentation. The total divergence may be due to numerous factors other than fragmentation, such as the weather conditions, pest and disease, application of fertilisers, use of seeds and variety, and the techniques employed. We are not in a position to determine the proportion of the divergence owing to each of these. It thus appears that the concept of fragmentation is easier mentally visualised than practically analysed. All we may say is that fragmentation may contribute to inefficiency; but as to what extent it does so, we are in a very difficult position to tell.

Secondly, we have noted that a large portion of the extent of fragmentation in Block P occurs because a large number of holders and farmers hold and/or operate cocoonut-land outside of S.S. in addition to padi-land in the S.S. The two types of land are thus held for different purposes, and farmed with different crops. Granted that there should be some specialisation of areas with regard to different crops, and granted that it is more economic to cultivate both padi and cocoonut simultaneously rather than to cultivate either, does the presence of fragmentation really matter in such situation. For all we know in such circumstances fragmentation is not only desirable but unavoidable. There is no slightest doubt, however, as to the relevancy of the concept of fragmentation with regards to scattered padi holdings or farms in the S.S., for the whole S.S. is a specialised area for a specialised crop. Under normal circumstances fragmentation is here avoidable.