

CHAPTER VII

EFFECTS OF FRAGMENTATION AND CONSOLIDATION

ON LAND USES

Land fragmentation is one of the most prominent features of agricultural structure in the rural Delta. It has created a persistent problem which has stood in the way of any effective land reform directed towards collective farming in the region. The problem has been growing since the rule of Mohammed Ali when he divided the cultivated land amongst his officers and the big families, and since then the fragmentation has gone on unchecked and has seriously affected the agricultural structure.

The conditions which encourage fragmentation of land in the Nile Delta are due to the expanding population in a limited area and ^{the} law of inheritance which makes for subdivision of holdings. Furthermore, density of agricultural population is also usually associated with a lack of alternative employment for members of the cultivating classes, thereby tying people to the land, and so heightening the tendency toward subdivision. The relatively high value of land is another reason for subdivision and causes the fellah to cling tenaciously to his so precious little bit of land which constitutes his sole means of livelihood.

With the increase in population, the class of the small proprietors has increased far more rapidly than the other classes; between 1905 and 1940 their number increased by 133% while the area in the under 5 feddans class has increased by 50%. Most of this increase has been in the area of farms under one feddan, that is in the size of farm which does not provide a minimum subsistence level. Thus the increase of the population has added to the number of landless or sub-landed peasants. The growth of this class has reduced the size of the medium-sized farms, and has nibbled a little away from the area under large estates. The other classes remained roughly the same.

Table 34. Change in Land Ownership (1905 - 1940) (1)

Size of holding in f's.	No. of population		Increase % age	Area in Feddans		Increase % age
	1905	1940		1905	1940	
Under 5	1,005,705	2,336,151	133	1,264,034	1,895,477	50.0
5 - 10	77,063	85,622	11	544,674	573,038	5.2
10 - 30	49,305	53,362	8	802,323	787,444	1.8
30 - 50	8,601	9,179	6.8	331,501	356,538	7.6
Over 50	12,475	12,232	-0.2	2,356,602	2,168,514	-4.6
Total	1,153,149	2,496,546	116.5	5,299,084	5,841,011	10.25

Size of holding in feddans	Average Area in Feddans	
	1905	1940
Under 5	1.76	0.81
5 - 10	7.01	6.69
10 - 30	16.30	14.80
30 - 50	38.50	38.84
Over 50	189.00	177.28

This means that the number of population owning less than 5 feddans must by now have been doubled since 1905 while the percentage increase of holdings of less than 5 feddans must be about 75%. Land Fragmentation will continue to increase unless preventive measures are taken.

(1) Hileen Warriner: 'Land and Poverty in the Middle East' Royal Institute of International Affairs, London 1948

Effects of Fragmentation

The most obvious effect of dividing a farm into a number of physically separated parcels is to make the working of the farm unnecessarily difficult. Time is wasted and extra expense involved in moving workers, animals and implements to and from the farmstead; supervision is rendered more difficult; expenses on water supplies, buildings, threshing floor etc., are often much greater; comprehensive drainage or other schemes of improvement may be rendered impossible; access to the various fields may be difficult. The farmers in this case, cannot control a particular rotation for the land, despite the harm they cause to their neighbours by growing crops different from those on adjoining holdings.

As B.P. Jain⁽¹⁾ has said, in his book on Agricultural Holdings in the United Provinces in India, 'It is calculated that expenditure for cultivation of land increases by 5.3% for every 500 metres of distance for manual labour and ploughing, 20% to 35% for transport of crops. It has been further observed that on compact holdings the income from farming would be increased by at least 20% without any modification in the method of cultivation.'

The scattered holdings are a source of quarrels among villagers over boundary disputes, and cattle trespasses occur frequently and they lead to affrays and litigation. It is tragic indeed that a lot of money which might easily improve the economic position of the peasant should find its way in the pocket of the lawyer.

Fragmented holdings, also, cause waste of the land area itself due to the existence of borders between the plots, the multiplication of canals and drains for irrigating each plot. In addition there is wastage from the irregular shape of the land.

These are the most obvious drawbacks of fragmented holdings. The drawbacks are even more far-reaching, affecting the country's agricultural production by

(1) F.A.O. Consolidation of Fragmented Agricultural Holdings' U.N. Publication Washington 1950

reducing the level of output of land and thus affecting the national income.

Prevention of Fragmentation

The adoption of legislative action to prevent excessive subdivision would be faced with considerable practical difficulties. The danger that the law might be ineffective arises from the fact that regulation cannot move much in advance of public opinion. It is also important to mention that legislation which, by establishing a minimum farm area, limits the number of farmers, may, as population increases, become unworkable unless opportunity is provided for alternative employment. Here again appears the need not only for agricultural expansion but also for developing rural industries and perhaps absorbing the surplus agricultural population in large-scale industries. Regulatory legislation should, therefore on the one hand be so framed as to allow considerable discretion to local administering authorities, and, on the other hand, resort should be made to persuasion directed towards the development of public opinion.

In this connection, articles 23 and 24 of the Land Reform Law stipulate that holdings should not be divided into plots of less than five feddans, whether through sale, exchange, inheritance, or any other means of transfer of ownership. This attempt to bring about a solution has not yet been put into practical execution for a number of different reasons. These reasons have been given by S. Marzi⁽¹⁾ as follows:-

1. Agreement between heirs to surrender their shares to one person who shall assume ownership is out of the question because this would mean depriving them of a secure and continuous source of livelihood even if they get adequate compensation for their shares.
2. The transfer of the shares of heirs to a single owner would be hindered by his lack of enough capital to buy shares.
3. Agreement of the heirs among themselves about who shall assume ownership is the main problem since in the Egyptian culture land still maintains its value as a symbol of social prestige.

(1) Marzi, S. 'Agrarian Reform in Egypt' Government Press, Cairo 1958, page 206

8. Marii suggested a different solution for the problem by the reallocation of holdings and controlling land use and crop rotations in big areas. (1)

The Need for Consolidation

In the Nile Delta small farmers in undersized holdings are hardly occupied for more than 200 days in the year. Intensive farming is the only method available for the masses of people for the improvement of income and credit. But intensive farming is being jeopardized by the poverty of the cultivators. There is no possibility of rehabilitating intensive farming except by overcoming the handicap of subdivision of holdings by either consolidation of holdings or consolidation on the basis of crops. The village will have to be divided according to the crops cultivated and each of the middle class cultivators will be given, say, one compact block. This will ensure both security and the economic advantage of compact farming. The individual who owns less than 5 feddans still owns his particular portion of any one block but close association of persons growing the same crop invariably leads to co-operative work on the block as a whole; it makes the utilization of co-operatively owned implements easier, and it facilitates the demonstration of improvements and stimulates rivalry for better production. In the latter case consolidation of cropping is easier than consolidation of holdings.

To facilitate credit for the mass of small farmers who have sunk below the credit line it is essential to improve the scale of farming as the basis of credit by means of consolidation. It is probable that due to the fact that the majority of holdings have reached an uneconomical size, the problem can only be solved by legislation, making it compulsory for the cultivators to accept re-stripment when the cultivators of more than say, one third of the cultivated area of the village agree to consolidation.

Co-operative societies should also be organized which should pool bullocks, ploughs and seeds, and undertake agricultural operations in common. Small farmers may organise themselves for joint ownership of cattle, joint cultivation and an equitable sharing of the produce in consolidated holdings according to the quota of labour from each family estimated by some pre-determined form or standard (See appendix No. 6)

(1) This is discussed in detail in Chapter II.

Farmers in a group can be expected to combine together to allow for ploughing and harvesting at the same time, but each individual will own the usufruct of his own farm.

Such co-operative farming societies would be even more necessary for the landless classes.

Way to Consolidation

It is useless to think of real enduring agricultural progress without consolidation. Here is a justification for the State enforcing consolidation measures, by legislation if necessary, if it is convinced that consolidation of holdings is of real benefit to the country as to the fellaheen themselves. The Land Reform law can be considered a preparatory step towards this target.

Measures to cope with the fragmentation of holdings have to be formulated from two points of view: 1. Prevention of sub-division, and 2. Reunion of scattered holdings.

Laws are made for human beings in their social setting and, therefore, must be adapted to the changing conditions of a society. If laws of inheritance are in some matters found wanting, they should be modified in the interest and welfare of those for whose benefit they were formulated in a social condition presumably different from that which prevails at present. Fortunately, the Islamic faith is a flexible one and can fit almost any social conditions. Although consolidation is a physical procedure there is no reason why laws of inheritance should not still work provided the benefits accruing from it are not lost.

There are difficulties, no doubt, in the way of enforcing legislation aiming at a compulsory restripping of land; the system of land tenure prevalent in the country and vested interests will tend to thwart every effort to readjust field boundaries. But this opposition may have to be faced boldly and overcome. Among the countries which successfully adopted compulsory consolidation as a solution to the problem of fragmentation are France, Switzerland, and Ireland. The same is true of the Lebanon which was able, by the application of this system to re-allocate big areas of its fragmented land in 46 villages, 22 in the region of Zahlé and 24 in the Baalbek region.⁽¹⁾

(1) Marii S. Agrarian Reform in Egypt Government Press, Cairo 1958 page 208

It would be preferable if, instead of being enforced by the Government, re-stripping were to be effected on a voluntary basis, as has happened in the co-operative consolidation of holdings in the Punjab (in India) where the confidence of the peasant had been won by the success of co-operative credit and other societies.⁽¹⁾ But at the same time legislation was needed in other provinces. In most areas in India and Pakistan voluntary consolidation did not work and the two countries resorted to the compulsory system.

M.S. Randhawa,⁽²⁾ in his book 'Developing Village India' illustrated what he calls the Agriculture Ladder to reach consolidation and then mixed farming as follows:-

- i. Reform of land tenure.
- ii. Village Committee (Panchayat organization)
- iii. Development facilities
- iv. Consolidation of holdings
- v. Mixed farming - leading to prosperity.

Marii,⁽³⁾ has found that intervention by the State itself backed by effective legislation is essential for achieving positive results from land consolidation, in the Egyptian countryside. He also emphasized that immigration into new reclaimed areas and consolidation must go side by side. Migration will help to relieve the pressure on the land which will consequently facilitate the procedure of consolidation.

The procedure of the consolidation of the fragmented holdings involves many technical, social, and economic problems. The requirements for a consolidation scheme are briefly summarized in the F.A.O. publication on the Consolidation of Fragmented Agricultural Holdings, (September 1950 - pages 28 and 29).

Effects of Consolidation

The main social consequences of the scheme will be to accentuate the effects of transition from peasant farming to commercial economics. Commercialism makes

(1) F.A.O. The Consolidation of Fragmented Holdings. Washington 1950. (UN. Pub.)

(2) Randhawa, M.S. 'Developing of Village India Hind Kitabs Bombay 1951.

(3) Marii, S. 'Agrarian Reform in Egypt' Government Press, Cairo 1958. page 207

communities more liable to the effect of price changes and will tend to sharpen conflicts between young and old and to weaken established forms of discipline and of 'Social Insurance'. Even family bonds may be weakened by changes in responsibility for work and by the greater independence which cash may afford to individuals. Local antagonisms may also tend to increase as authorities will be tempted to impose on ordinary men, and societies will assume a deeper and different stratification according to economic productivity rather than hereditary or administrative distinction.

Real local leadership will be needed not only to gain support for the scheme but also to secure wise adaptation of farming systems, and efficiency in the use of machinery and in financial and marketing arrangements. It will be needed too, in altering the layout of fields and plots and, perhaps most important of all, in achieving land tenure arrangements appropriate to changed economic conditions.

The transformation of small disintegrated peasant farms into large-scale amalgamated farms, on the basis of co-operative farming and employing new and better techniques, involves a very radical change indeed but intermediary stages can be used in the process which will make transition easier and more acceptable. Such an intermediate form would be to amalgamate the petty and tiny peasant farms gradually but steadily, not by means of pressure, but by example and conviction, into large-scale undertakings on the basis of co-operative farming, supplying agricultural machinery, applying scientific methods for the intensification of agriculture. An experiment has already been carried out in Nawag village near Tanta where 1935 feddans owned by 1500 owners were affected.⁽¹⁾ The area has been divided into 12 rotations the average area of each being 150 feddans, with the results that production has increased by 25%.

Apart from factors related to traditions, distance from the village and other social and security factors, the size of the farm, and the crop grown are the main factors affecting the pattern of settlement.

The dispersal of the plot of each farm has its effect on the pattern of

(1) This is discussed in detail in Chapter II.

settlement. In the case of small farms, dispersal of plots means agglomeration mainly in the village form, dispersal in the case of large farms does not produce such an effect, but, on the contrary may encourage dispersal of settlements.

Due to consolidation and co-operative farming, a number of farms of about 100 to 200 acres may be created together with farm buildings and rural houses like the so-called existing 'Ezbas'. This will eventually effect the village size and reduce it to the minimum. Furthermore, the factor of security which influenced the form of the village plan for thousands of years will no longer be so important as the result of economic, social and cultural changes.

Satisfactory consolidation may result in depriving some farmers of their farms. In a densely populated countryside, such as that of the Nile Delta, with few or no opportunities for alternative employment this may be a very serious matter. In such cases, the expedient of working the land, without division in large co-operative units may be a partial and temporary solution; but it will seldom be a complete or permanent one, especially as the efficient working of large farms usually demands methods different from those suited to small family farms - methods which sooner or later will involve less demand for human work and consequent redundancy of workers.

The physical and technical aspects of consolidation are only the simpler parts of the problem. More obstinate difficulties arise from the fact that the farmers are human beings with normal human emotions and reactions and who have been tied to their land for thousands of years. These human feelings are of equal importance when remedies are sought. There is the inertia of peasant tradition, which tends to obstruct all change. Or there may be a real attachment to the fields that the fellah knows and understands - perhaps largely sentimental, but strengthened by a natural professional doubt as to the wisdom of changing this well-understood land for something less familiar.

Another difficulty is financial, as no scheme of consolidation can ordinarily be carried out without considerable expenditure. Quite apart from the expenditure which may be necessary on account of such preliminaries as survey

and demarcation, the construction of roads and cattle paths, the supervising of staff; it is certain that at some stage or another the question of Capital will also be required to organize the consolidated farms, and special credit arrangements may be necessary for this purpose. The expenses of consolidation are usually shared between the Government and the landowners.

Social difficulties also exist from which come a number of miscellaneous difficulties deriving from the organization of the community itself. The fellah-er must be aware of the problem and must be advised to try to anticipate and take part in solving it.