It has been pointed out in the last chapter that cooperative farming has not made any headway in this country. It has failed to increase agricultural production which is, at the moment, low due to small size of holdings followed by consequent diseconomies and lack of proper application of agricultural inputs as well as inadequacy of farm credit. The absence of agro-industries is further aggravating the miseries of the rural population.

In this chapter I have examined in detail the future pattern of cooperative farming in Uttar Pradesh with reference to its applicability in the context of the problems referred to above.

A CASE FOR COOPERATIVE FARMING

A study of the size of holdings reveal that the average size of holdings is 2.2 hectares in India.\(^1\) About 15 per cent of the holdings are quite uneconomic having less than 2½ acres of land. Such a small size of holdings is too small to maintain a family and a pair

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\(^1\) Pocket Book of Information on Community Development, Ministry of Food, Agriculture, Community Development & Cooperation, Government of India, p. 162.
of bullocks. Needless to mention that the tiny plots of land are a bottleneck in the utilisation of labour, capital and bullock power. The ultimate result of all these is low productivity of land. Under the circumstances, cooperative farming offers a solution of this problem. But what form of cooperative farming can deliver the goods is the crux of the problem? Confusion is created by referring to the examples of U.S.S.R. and Japan as countries of two extremes - one having very large farm units and the other cultivating on very small farm units. Likewise reference is made to the collective farming of Russia in contrast to the cooperative farming of India. Truly speaking India must evolve a pattern of her own for the development of agriculture through cooperative farming. We must not be dazzled either by the bigness or smallness of farms for high-yields. It is, therefore, necessary to examine the impact of the size of holding on agricultural production. It would not be out of place to discuss the collective farming of Russia for a better understanding of the impact of size on productivity.

Russia is a Communist country where individual farms have been collectivised on a mass scale. This was undertaken as a State policy without any regard to the sentiments of individuals. No wonder, in the days of collectivisation of farms (establishment of Kolkhozes) the production declined partly due to resentment from landlords (Kulaks) against the policy of collectivisation and partly due to the poor farm equipment during the early days of collectivisation. Thus the old data
supporting the argument that collective farms were uneconomic and production per acre was low, was generally based on the statistics relating to the early days of collectivisation. The information that collective farms have not delivered the goods should be studied in the light of the comparative figures of production of State farms with that of collective farms of Russia. As a matter of fact the collective farms were less equipped in comparison with the State farms and, therefore, their yields were also comparatively poor. However, the collective farms are now well-established farms of agricultural organisation. They are successful from the point of view of agricultural prosperity and employment opportunities.

Against this background Japan presents a contrast. She has high record of per acre production in small holdings. This high yield per acre in Japan cannot be taken as argument against large sized farms of Russia, Eastern European or Asian countries. In Japan the conditions are quite different. The Japanese soil, leaving aside the upland fields is generally more fertile. Japan lies in the temperate zone between the 31st and the 45th parallels and her people can work for longer hours per day than the Indian farmers. The climatic conditions in India reduce our man-hour production. Moreover, Japan receives 120 inches of rainfall per year while India gets less than 50 inches of rainfall in most of the areas. The high yield of Japan may also be attributed to institutional and sociological changes brought about by nearly hundred years of economic and industrial development. The industrialisation of
Japan has also equipped her agriculture with plant protection devices, tools, researches, etc. They are universally employed by small farms. The farmers are not short of finances like their counterparts in India. Paddy is a most important crop of Japan which is planted and looked after by women. Generally men folk work in domestic industries and supplement the family income. In India such conditions do not exist. Women labour is neither gainfully employed on fields nor in cottage industries. Naturally the burden of population is borne by the soil without any technological and institutional change. As the resources are meagre and other facilities like irrigation, use of improved tools and implements, fertilisers etc. are not available to the Indian farmer the production per acre is much lower than Japan. Moreover, the cooperative credit is not supplied to the farmers according to his needs. Japan, on the other hand, has also been benefitted by the social, political and institutional changes brought about by the changing environment. Japanese nation has always survived amidst adversities. Every Japanese by temperament works hard for his country. While in India we are lethargic and resigned to fate, our agriculture is still 'a gamble in rainfall'.

It is clear from the above that a comparative study of agricultural production of India with that of Russia or of Japan is highly misleading. Our agricultural farms large or small do not enjoy the facilities of either Russia or Japan. No statistical data regarding our yields, can lead us to any definite conclusion. If we would fail to
interpret them in the background of the existing conditions prevailing in our agriculture. For example the following table shows that the output per acre on small holdings is the highest but this does not mean that large sized farms are uneconomical.

**TABLE - 24**

<table>
<thead>
<tr>
<th>Size-group (Areas)</th>
<th>Cost Accounting Sample</th>
<th>Survey Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of holdings : Output</td>
<td>No. of holdings : Output</td>
</tr>
<tr>
<td>Below 5</td>
<td>47 : 313.51</td>
<td>121 : 333.62</td>
</tr>
<tr>
<td>5 to 10</td>
<td>71 : 300.56</td>
<td>133 : 280.91</td>
</tr>
<tr>
<td>10 to 15</td>
<td>37 : 253.64</td>
<td>72 : 255.31</td>
</tr>
<tr>
<td>15 to 20</td>
<td>17 : 238.90</td>
<td>40 : 252.54</td>
</tr>
<tr>
<td>20 and above</td>
<td>21 : 252.12</td>
<td>31 : 236.70</td>
</tr>
</tbody>
</table>

**SOURCE:** Singh, Charan: Joint Farming X-rayed. The problem and its solution, Bharatiya Vidya Bhavan, Bombay, p. 42.

The above table shows that in the size group below five acres the yield is highest while in the group of 20 acres and above it is the lowest. But this will be a hasty conclusion. Our enquiry will be meaningful if we analyse the data in the background of the following information:

a) Whether the land was fully utilized: If not, how much land remained idle.
b) Was it cultivated by the owner or by the tenant cultivators?
c) Were the agricultural inputs fully applied?
d) Were the irrigation facilities available? If so, what was the proportion between irrigated and unirrigated land?
e) What was the proportion between fertile and unfertile land?
f) How the agricultural operations were supervised and managed?
g) Have they provided more employment through the development of cottage and small scale industries?
h) Whether small and cottage industries created marketable surpluses?

On the basis of the above enquiry the author noted the following:

It is wrong to base the judgment on the results of relatively small but well equipped private farms as compared with the cooperative farms which do not enjoy similar facilities. The productivity per acre on cooperative farms is low due to certain defects over which the members have no control. Again it is perhaps not taken into account that in large sized holdings there is thinner spread of capital and other inputs per acre. Under such circumstances a study of returns to scale requires the increment of all inputs, i.e., capital as well as land labour and management in the same proportion. But ordinarily we lay emphasis on the size of land alone in the evaluation of yield from large size holdings irrespective of the other inputs essential for production. Thus it is justifiable to say that large holdings can give better results provided they are supplied with the inputs they need and are utilised to their capacity. An economically large farm has many other potentialities which are not found in an uneconomic unit. For example, it can provide
more employment, create more marketable surpluses, develop agro-based industries and produces better quality of different varieties. The size of an economic unit and its maximum utilization depends on many factors such as type of soil, irrigation facilities, climatic conditions, etc. According to this criterion an economic unit may range from 50 to 200 acres depending upon the circumstances of each case. On such a unit more rational use of manpower and draught animals, application of agricultural inputs combined with managerial efficiency will give field much better results. As technology improves (which is not necessarily mechanisation) managerial talents grow and economies are effected. All these combined are bound to increase the production.

Likewise, it is not true to remark that through service cooperatives agricultural production is enhanced because they provide credit and the agricultural inputs necessary for higher yield. They can help in increasing the production but they cannot altogether solve the problems of small holdings. In a service cooperative, farmers join together. They pool their own money savings and deposits from outside, purchase for themselves as well as for others the wherewithal of agriculture-seeds, fertilisers, implements, insecticides, weedicides and make available transport, marketing and warehousing facilities. Nevertheless, it must be realised that these organisations mop up only the money savings of the agricultural society - a resource which is known to be in short supply - and do nothing to tackle the problem of surplus
surplus labour, a resource which is abundant. The major and lasting improvements in productivity in the agricultural sector are possible only when the surplus man-power is fully utilised. In so far as co operative servicing does little to attack this problem and concentrates on the mobilisation of the limited money resources. Hence it is doubtful to expect considerable benefits to agriculture by the service cooperatives.¹

The small farmers cannot even make use of the services of a service cooperative society. As a matter of fact in those sub-sector of the agricultural economy where owing to the decay of the tenurial system or an extremely unfavourable land-man ratio, serious disincentives have become the rule, service cooperatives will make little headway. Moreover, the service cooperatives have to recover fully the costs of the services from the users. The capacity of the peasant to pay back the full price of a service depends upon successful harvests. The service cooperatives generally tackle money savings, but not the labour problems which loom large in lowering the yield per acre. Unless they mobilise labour effectively they will occupy a relatively minor place in the scheme of agrarian reforms.

Economics of Size:

As mentioned earlier the petty size of land cannot enjoy the economics of scale as it becomes a bottleneck on the full use of labour, capital, bullock power and managerial talents. On a cooperative farm

¹ Khusro and Agarwal, op.cit., p. 51.
the labour power can be used more rationally. Permanent and semi-
permanent improvements through levelling, bunding, drainage, digging
of wells, constructions of irrigation channels, etc. could be undertaken.
Works like fencing, spraying, may also be undertaken more effectively.
Conversion of dry lands into wet lands, of single cropped lands into
double cropped lands, resort to intensive cultivation will reflect in
the increase of agricultural production. The draught animals, can be
looked after properly and utilised more rationally. With these impro-
vements on land the employment opportunities also increases. There may
be temporary set-backs in production due to natural calamities to which
agriculture is exposed throughout the world. Again, in the beginning
the expenditure increases more than the income realised from produce
and the balance sheet thus drawn up will reflect poor performance. But
this will be a temporary phase which should not discourage the develop-
ment of big farms. It is further argued that costs on large scale farms
will be far greater than what they are on small farms taken together
owing to the need of detailed supervision and complicated system of
accounting, overhead costs, etc.

offset
Here again all such overhead expenses will be/more than the
surpluses which they would create through intensive utilisation of land
and rationalisation of labour. This is borne out by the example of U.S.S.R.
where small collective farms have been amalgamated to form a big unit.
The large area of operation has lowered down the managerial and supervisory
expenses. However, in our case, no question of such 'big farms' arises. Our aim is to establish cooperative farms ranging from 50 to 200 acres according to the type of soil, climate and other conditions. Thus cooperative farming in India does intend to large the foundation of the collective farms of Russia and is immune from many drawbacks.

On the other hand, by pooling land and bringing all the fragments of a holding together, the wastage of land can be avoided. More land can be made available for cultivation by abolishing the strips of land that had to be left between one fragment and another. With increasing activities like construction of wells, reclamation of land, bunding, fencing, as well as shift to double cropping the employment opportunities can be enlarged. The loss of land through fragmentation is considerable. "As a matter of arithmetical facts, since there are about 40 million holdings in the country and the average degree of fragmentation may not be less than five fragments per holding, the saving in land by abolishing the boundaries between some 200 million fragments cannot be inconsiderable, particularly in a country which rightly complains of an adverse land-man ratio."¹

**Cooperative Farming Does Not Necessarily lead to Mechanisation**

Cooperative farming does not necessarily mean use of tractors and other heavy machinery except for major projects like reclamation of

¹ Khusro and Agarwal, *op.cit.*, p. 64.
land, irrigation facilities etc. The collective farms of Russia use tractors, combines, harvesters, etc., but in Poland horses are still employed for ploughing the land. It is a matter of priority that mechanisation is introduced taking in view the prevailing conditions of a country.

In India mechanisation in agriculture on a nation-wide scale is ruled out in the present stage of our economic development but partial mechanisation may be useful with a view to displacing draught animal power without displacing men, or in the reclamation of some types of lands, or to meet the regional shortage of labour or in transportation where the time factor becomes highly important.

Availability of Farm Requisites:

From the above description it is clear that the basic problem with the farmers is non-availability of inputs and their proper use. Instances are not lacking when the water-lifting pumps, fertilisers, improved seeds, sprayers, etc., are not available, and where they are available the financial difficulties come in the way of small cultivators. If there is no other impediment, the lack of education and technical knowledge do not permit the farmer to take advantage of the facilities. Thus for one reason or the other, the inputs are not properly applied and the production reflects low yield per acre. To educate millions of farmers carrying on farming as a mode of life is difficult. It is comparatively easy to demonstrate the usefulness of the application of
various inputs if they unite together under a cooperative farming society which provides the necessary finance, stores the farm requisites and markets the product to the advantage of the members. The proper and timely use of all these inputs will generate large agricultural surpluses essential for the industrial development of the country.

Thus it is evident that cooperative farming is full of promise to meet our agricultural problems. But this does not mean that service cooperatives should be altogether dispensed with. They have also their scope in the rural economy. The usefulness of cooperative farming can be fully appreciated in the following circumstances.1

1. They are essential for bringing new land under cultivation. The collective work in clearing forests etc., have obvious advantages. The members may continue to cultivate lands jointly after clearing the forests because they are resourceless and cannot work without financial and technical help which are available under cooperative farming.

2. The cooperative farming is useful for rehabilitating certain sections of the community such as displaced persons, ex-military personnel, agricultural labourers, etc. These people usually lack agricultural know-how, do not have farm resources. They are likely to derive moral support from each other by working in groups. The government also finds it easier to provide technical and financial assistance to organised groups rather than to individuals.

3. In settled areas, the scope for cooperative farming appears to be restricted to farmers who cultivate uneconomic holdings and are sub-marginal. These farmers represent a category who have a deficit farm economy and who are not likely to attain a self-supporting farm economy in a reasonable short period of time, even when all the farm services and technical know-how are provided to them through cooperative action. Cooperative land utilisation in their case is an obvious necessity, if they are to remain in farm business.

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1 Summary of discussions at the Cooperative Farming Seminar, ICA, New Delhi, 1962.
In view of the above, it is worthwhile to examine in the following paragraphs as to how far cooperative farming can increase agricultural production in Uttar Pradesh.

**Scope in Uttar Pradesh:**

As regards area Uttar Pradesh is the fourth largest State in India while in terms of population it ranks first. It covers (in 1961) an area of 1,13,654 (9.65 per cent of India's total area) and has a population of 73.7 million (16.8 per cent of the National population) with a density of 649 persons per square mile as against 373 persons per square mile which is an all-India average. With such a large segment of the population of India living within its boundaries, economic development of Uttar Pradesh assumes special significance.

The economy of the State is heavily biased in favour of agriculture which is evident from the fact that 75 per cent of the working population was dependent upon agriculture in 1965 as against the all-India average of 69.5 per cent. The agricultural population has no supplementary means for income. The population engaged in household industries is only 2 per cent as against the average of 5.36 per cent in all-India.¹

Thus, high density of population coupled with the dependence of nearly 3/4 of its total population on agriculture, and the very low productivity

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¹ The Techno-Economic Survey of Uttar Pradesh mentions that 2 per cent population is engaged in household enterprises - For details see: TES of Uttar Pradesh, p. 141 and table 5 while the Census of India 1961 mentions 5.11 per cent.
of land has resulted in a low per capita income in the State. The per capita income in Uttar Pradesh is Rs. 290 which is 11 per cent less in comparison with the all-India average.

The importance of agriculture lies in the fact that agriculture and allied activities contribute 68.1 per cent of the total State's population as against 52.0 per cent in all-India. From the point of view of India's economy as a whole and particularly in the context of foodgrain supplies its importance is hidden in the fact that nearly 1/3 of the all-India production of wheat is produced in Uttar Pradesh. The low yield of wheat in Uttar Pradesh has a depressing effect even on the overall National production of this crop.

In order to stimulate the agricultural economy of the State crores of rupees have been spent on agricultural development during the last 15 years, but in terms of yield per acre the results are not good. For example, in case of rice, maize, barley, gram, groundnut, cotton and sugarcane per acre yield is below National average. The production of wheat, jowar, bajra, millet and potatoe is although higher than the all-India average, it is lower if compared with Punjab and Rajasthan.\(^1\) Due to low productivity the per acre net value of agricultural production in Uttar Pradesh comes to Rs. 617.00 which is higher than the all-India level of Rs. 161.00 but in terms of investment in agriculture,

\(^1\) Techno-Economic Survey of Uttar Pradesh, p. 21.
irrigation facilities, area under double cropping and climatic advantages over other regions of the country this cannot be said as an index of satisfactory progress. Moreover, in eastern parts of Uttar Pradesh the productivity per acre shows an abrupt deviation with the western districts.

The backwardness of agricultural economy of Uttar Pradesh is indicated by the following facts:

1. Uttar Pradesh has unfavourable land-man ratio. Nearly 2/5 of the cultivating families appear to be living on a holding of less than 2.5 acres (i.e., less than ½ acre per head if the size of family is taken as five.

2. There is general inadequacy of capital and resources, i.e., the farmers lack credit, seeds, fertilisers and implements for developing agriculture. As a result of the above the existing facilities and consequent under-development of agro-industries.

To remove some of these defects steps are being taken to help the cultivators through the cooperative agricultural credit, marketing, multipurpose, large sized and service cooperatives. Cooperative better farming and tenant farming societies have also been geared into action to help the farmers. Apart from these societies, different types of other societies working in the State are directly or indirectly of great help to the farmers. As a matter of fact a number of different types of societies (table 25) have also contributed towards the welfare of the agriculturists by providing finances to them. The table No. 25 gives an account of their development since 1946-47.
### Table - 25

**Cooperative Movement in Uttar Pradesh**

(1946-47 to 1965-66)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. All types of cooperatives (excluding sugarcane and industrial cooperative societies)</strong></td>
<td>23,496</td>
<td>35,249</td>
<td>54,143</td>
<td>65,483</td>
<td>65,246</td>
<td>60,668</td>
<td>57,941</td>
<td>52,031</td>
</tr>
<tr>
<td><strong>2. Number of members (in lakhs)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A) Individuals</td>
<td>18.86</td>
<td>16.13</td>
<td>22.66</td>
<td>45.33</td>
<td>51.10</td>
<td>54.80</td>
<td>60.36</td>
<td>66.99</td>
</tr>
<tr>
<td>(B) Societies</td>
<td>.</td>
<td>0.43</td>
<td>0.71</td>
<td>0.03</td>
<td>1.13</td>
<td>1.17</td>
<td>1.18</td>
<td>1.15</td>
</tr>
<tr>
<td><strong>3. Owned capital (Rs. in crores)</strong></td>
<td>3.46</td>
<td>6.45</td>
<td>11.72</td>
<td>31.49</td>
<td>36.16</td>
<td>40.90</td>
<td>46.67</td>
<td>50.70</td>
</tr>
<tr>
<td><strong>4. Working capital (Rs. in crores)</strong></td>
<td>8.15</td>
<td>20.82</td>
<td>31.38</td>
<td>117.57</td>
<td>138.98</td>
<td>162.50</td>
<td>195.60</td>
<td>216.43</td>
</tr>
</tbody>
</table>

**Source:** Sahkarita, Uttar Pradesh, 1947, Appendix page 1.
But these societies do not offer a solution to the problems of small holdings and their fragmentary nature. Production has its relation with the size of operation. The law of diminishing returns although operates in agriculture earlier than a manufacturing unit but in case of Uttar Pradesh we are not touching the point where production declines due to large operational unit nor cooperative farming aims at enlarging the farm unit to thousands of acres, rather we are on the lower side where dis-economies occur due to small size of uneconomic unit. It is evident from the fact that the average size of household operational holdings in 1953-54 was 1.46 hectares in Uttar Pradesh as compared to 2.46, 3.03, 6.05, 3.15, 4.33 and 3.97 hectares in Mysore, Bombay, Saurashtra, Madhya Bharat and Hyderabad respectively. From such a small holding no economy of scale can be expected. This problem has its multi-dimensional effect on our economy. The cultivator is not only debarred from the advantages of large scale farming but also suffers from financial difficulties and cannot make use of existing irrigation facilities, improved seeds, fertilizers, sprayers, etc. Double cropping is also out of question. A small farmer is weak; exposed to all difficulties in the procurement of agricultural requisites, availing of transport, storing and other facilities. The net result is low productivity, low income, less marketable surplus and high cost of production. The cooperative farming society can help the farmer not only in getting the advantages of large-scale farming but also in the application of necessary inputs, so necessary for increasing production.
It has been noted that in Uttar Pradesh during the past decade a sum of Rs. 72 crores (about 44 per cent of the total State outlay in agriculture sector) was spent on extending irrigation facilities.¹ This created an irrigation potential of 118 lakh acres by the State works alone in 1960-61. In addition, potential to the extent of 60 lakh acres was created by private works.² But against a total potential of 178 lakh acres by 1960-61, actual net irrigated area was only 125 lakh acres,³ leaving a balance of 53 lakh acres unutilised. Even the area irrigated by the Government canals, on which larger sums were spent during the past decade, did not register any appreciable increase. It is a pointer to the fact that the farmers (particularly having uneconomic holdings) have neither incentive, nor means to utilise the existing facilities. They have no incentive because this increases the cost of production which cannot be recovered from the comparatively better yield after irrigating the land from canal water. It has also been noted that in a number of cases there is a great deal of misuse of irrigation water by over irrigating fields. The cultivators do not know the precise quantity of water required by a particular crop. All this shows that the small cultivator inspite of the availability of irrigation facilities cannot make use of the water. Neither of the societies - credit, marketing, better farming and individual farming on cooperative lines - can help the situation. Thus the small cultivator

¹ Techno-Economic Survey of Uttar Pradesh, op. cit., p. 34.
² ibid., (foot-note No.1), p. 36.
³ ibid., p. 36.
will suffer until he unites together to avail of the existing opportunities.

Likewise the double cropped area can be extended in Uttar Pradesh because of irrigation facilities, fertility of soil in Yamuna-Gangetic Plain and favourable climatic conditions. In 1960-61 the double cropped area was about 26 per cent of the net sown area.

This area can be further increased with the help of cooperative farming societies. By suitable changes in cropping pattern and with the extension of irrigation facilities, it is visualised that the double cropped area can be increased from the present level of 112 lakh acres to 380 lakh acres by 1975-76.¹ An increase in the double cropped area will also increase the per capita income.

In case of fertiliser and manure the State runs short of supply. The State Government has estimated that the total quantity of nitrogen required at the end of the Third Plan would be 7.23 lakh tons. The State Third Plan provides for the supply of 4.97 lakh tons of nitrogen in the following manner:²

1. Organic

<p>| | |</p>
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Farm yard manure and compost</td>
<td>2.64</td>
</tr>
<tr>
<td>Night soil compost</td>
<td>0.35</td>
</tr>
<tr>
<td>Green manuring</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>2.99</td>
</tr>
</tbody>
</table>

2. Chemical Fertiliser

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<table>
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<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.98</td>
</tr>
<tr>
<td></td>
<td>1.98</td>
</tr>
<tr>
<td></td>
<td>4.97</td>
</tr>
</tbody>
</table>

¹ Techno-Economic Survey of Uttar Pradesh, op. cit., p. 34.
² ibid., p. 36.
This supply is likely to be only 69 per cent of the actual requirements. But in the interest of productivity it is suicidal to leave such deficits uncovered. In the absence of organised efforts we cannot increase the supply of manure by individual encouragement to millions of small cultivators. This problem can easily be solved through cooperative farming societies which can take up the work of proper utilisation of farm yard manure and night soil compost. Green manuring can be increased. The use of chemical fertiliser can be reserved for the most important crops. This on the one hand, the cooperative farming society has the resources of securing the necessary inputs while on the other hand it can utilise them in a rational way.

One of the methods for achieving quick gains in productivity is the use of improved varieties of seeds. A cultivator farming on a tiny land has less incentive for the use of improved seeds because in case the costly variety of improved seed like Mexican variety is not followed by adequate irrigation facilities the application of fertiliser will damage the crops. But the cultivator of Uttar Pradesh has meagre financial resources. Moreover, the small cultivator does not get loan from the cooperative society, or it is delayed because of defective procedure. Poverty is a curse. The supervisor of a cooperative society, an exploiting agency in the chain of cooperative loaning does not care for the poor cultivator. The supervisors are now recognised as a new addition in the category of money lenders and exploiters of poor
agriculturists. The small cultivator is an easy prey to him.

As a result of all this, the improved seeds are not widely used by small cultivators. In 1965-66 there were in all 1,428 godowns for seed. The quantity of seed distributed during 1965-66 was 9.51 lakh quintals. In Uttar Pradesh the cooperative seed stores are functioning since 1946 but they are not in a position to meet the requirements of farmers.

In general, lack of adequate and timely finance at reasonable rates has been one of the main handicaps to the cultivators. The small cultivators are the worst sufferer. If we assume a moderate figure of Rs. 50.00 per acre for short and medium term purposes in Uttar Pradesh, the total annual loan requirement comes to Rs. 268 crores out of which the cooperative societies provided only Rs. 44.48 crores during the year 1965-66. The crop loan system recently introduced to provide loan to the farmers irrespective to their assets and status does not seem to help him more. It has been noted that outstanding cooperative loan against small cultivators is less in comparison to big cultivators. But they gain the least from cooperatives because they cannot invest sufficient money for increasing their share capital which is the basis of providing loan. The table No. 26 confirms that the percentage distribution of rural households in the asset group of less than Rs. 500 is 17.9 but in respect of outstanding dues to cooperatives this group is not a serious defaulter although it is the least benefited class. Thus
<table>
<thead>
<tr>
<th>ASSET GROUPS</th>
<th>Loans Outstanding as on June 30, 1962</th>
<th>Loans Borrowed during 1961-62</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentage of households</td>
<td>Percentage of households reporting outstandings</td>
</tr>
<tr>
<td>Less than Rs. 500</td>
<td>17.9</td>
<td>2.2</td>
</tr>
<tr>
<td>Rs. 500 - Rs. 1,000</td>
<td>12.2</td>
<td>4.6</td>
</tr>
<tr>
<td>Rs. 1,000 - Rs. 2,500</td>
<td>22.9</td>
<td>7.6</td>
</tr>
<tr>
<td>Rs. 2,500 - Rs. 5,000</td>
<td>19.0</td>
<td>12.0</td>
</tr>
<tr>
<td>Rs. 5,000 - Rs. 10,000</td>
<td>14.7</td>
<td>15.5</td>
</tr>
<tr>
<td>Rs. 10,000 - Rs. 20,000</td>
<td>8.3</td>
<td>19.5</td>
</tr>
<tr>
<td>Rs. 20,000 and above</td>
<td>5.0</td>
<td>22.6</td>
</tr>
<tr>
<td>All assets group</td>
<td>100.0</td>
<td>10.0</td>
</tr>
</tbody>
</table>


Note: Figures in brackets are percentages to the total.
the secret of their prosperity lies in their cooperative efforts in farming.

Due to uneconomic holdings, the farmers are unemployed for a part of the year. Not only this but the problem of under-employment is growing due to high pressure of population on land. The secondary sector consisting of mining and industry, where normally the productivity per person engaged is much higher, has been relatively backward in this State. The share of State originating in the industrial sector is only 9 per cent as against the all-India figure of 19 per cent.\(^1\) In eastern Uttar Pradesh the man-power is under-utilised in a large measure.\(^2\) Cooperative farming can help this situation also by developing agro-industries and other activities on cooperative farms.

Likewise in the procurement of agricultural implements, insecticides, pesticides, weedicides, sprayer, availing of the godown facilities, marketing, transport and other services the small cultivator is the last to take advantage of the facilities provided by the Government and cooperative agency.

In short, the economy of Uttar Pradesh demands an urgent solution of agrarian problems. We cannot be successful in our aim to establish socialist pattern of society, unless we remove the shortcomings given above. To achieve this end Uttar Pradesh has pursued the policy of

\(^1\) Industrial Programmes in Uttar Pradesh during Fourth Plan, Directorate of Industries, Uttar Pradesh, Kanpur, 1965, p. 3.
organising cooperative farming societies by educating the farmers as one of the measures to stimulate the agricultural economy. The progress achieved in organising the cooperative farms is discussed below:

PROGRESS IN UTTAR PRADESH

In Uttar Pradesh a number of non-credit societies were organised on the recommendation of Oakden Committee but cooperative farming societies could not be developed before 1945. However, a start was made to eradicate the undesirable features of rural life on the recommendations of Oakden Committee and better living and farming societies were started in Uttar Pradesh. But it was only in 1950-51 that the scheme of cooperative farming was taken up as an experimental measure on modern lines. Provision for the organisation of cooperative farming societies was made in the U.P. Zamindari Abolition and Land Reforms Act, 1950 (U.P. Act No. I of 1951). A target of 100 cooperative farming societies was fixed for the First Five Year Plan period. This target was achieved well within the Plan period and the number of these societies increased to 216 in 1955-56.

The total membership of farming societies at the end of 1955-56 was 4,500, total area of the land held by these societies 50,962 acres. During the period 1951-56, about 9,000 acres of land lying fallow was brought under cultivation through joint and cooperative efforts. The

GROWTH OF
CO-OPERATIVE FARMING SOCIETIES
IN U.P
share capital of cooperative farming societies was also increased from Rs. 2.51 lakh to Rs. 13.30 lakh and working capital from Rs. 8.17 lakh to 39.70 lakh in 1955-56.

Under the Second Five Year Plan, again a target of organising 100 cooperative farming societies was laid down. The programme had a good response from the people and the number of societies increased to more than 400 societies before the end of Second Plan. But all the societies started during the period were not cooperative farming societies in terms of their definition in the Second Plan. Most of them neither pooled their land nor carried on joint management of cultivation. Societies like 'better farming' and 'tenant farming' were also labelled as cooperative farming societies during this period. Moreover, societies which were under the process of liquidation and sometimes even liquidated were also shown in the records.

The study made by the Agricultural Economics Research Centre, University of Delhi, points out that most of the existing cooperative societies in Uttar Pradesh were not genuine and a sizeable proportion of financial assistance given by the Government seems to have been given to societies which could by no means be regarded genuine. With this background the programme of organising cooperative farming societies was started in Uttar Pradesh during Third Plan.

1 For details see: Laxmi Narayan & Kanungo, 'Glimpses of Cooperative Farming in India', Asia Publishing House, New Delhi, 1967.
The Third Plan down a target of 1,000 cooperative farming societies - 450 in pilot projects, to be started in cooperatively developed Community Development Blocks and 550 in other areas. As Uttar Pradesh is densely populated State of India, dominated by agricultural activities carried on over small and scattered holdings, therefore, the programme has appealed to the masses. The number of farming societies working in the State on 30th June 1962, was 512. Of these 467 were joint farming and 45 collective farming with a total membership of 1,200 paid up share capital of Rs. 28,60,000 and working capital Rs. 90,23,000. The total land pooled by these societies was 95,200. During the year 1962-63 several measures were taken to accelerate the tempo of progress and the programme of organising cooperative farming societies in pilot projects was successfully carried over during the year. In non-pilot areas too the programme attracted the rural folk. To meet the growing need of funds during the year 1963-64 additional finances were provided for the expansion of cooperative farming, and organising cooperative farming societies on Government waste land, surplus land available after imposition of ceilings on land holdings. During the year 1963-64 the number of societies organised were 165 in pilot projects and 74 in non-pilot projects against a target of 150 and 50 respectively. The total number of societies during the year increased to 448 and 160 respectively. The Uttar Pradesh Government provided financial assistance to these societies on the following pattern without any distinction between pilot and non-pilot societies.
a) Cattle shed-cum-godown Rs. 5,000 (75% loan & 25% subsidy).
b) Medium Term Loan Rs. 4,000 (@ 3 3/4 per annum interest).
c) Management expenses Rs. 1,200 (spread over three years).
d) Government share Rs. 1,500 (Matching basis).

To create enlightened memberships a number of programmes were organised viz., village camps, cooperative conferences, seminars, tours, etc. The State Advisory Board (cooperative farming) also helped in the task of guiding, advising and reviewing the programme in the State.

In order to ensure that only good and genuine cooperative farming societies are organised the following conditions were required to be fulfilled by every society before it is registered:

1) There must be at least 10 members in every proposed society. All of them should be either Bhumidhars or Sirdars. It is, however, desirable to have more members than this prescribed minimum and also to give more encouragement to small land-holders for organising cooperative farms. The landless persons may also be admitted as members.

ii) A minimum of area must be pooled in the cooperative farm. This area is different for different regions as given below:

<table>
<thead>
<tr>
<th>Part of area or State</th>
<th>Minimum of land area prescribed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>For irrigated tracts (Acres)</td>
</tr>
<tr>
<td></td>
<td>For unirrigated tracts (Acres)</td>
</tr>
<tr>
<td>East U.P., Middle U.P. and Hill districts</td>
<td>30</td>
</tr>
<tr>
<td>West U.P. and Bundelkhand</td>
<td>50</td>
</tr>
</tbody>
</table>

1 The Cooperative Movement, U.P. Cooperative Department, U.P., Lucknow, 1963, pp. 41, 42.
iii) The members should have raised at least Rs. 1,500 as their own share capital.

iv) There should be joint cultivation and pooling of land.

v) Farming societies of persons who are members of a single family should not be encouraged.

An encouraging feature of the development of cooperative farming societies is evident from the fact that the farmers possessing small holdings were encouraged to join the societies as it is evident from the following table:

Table - 27

Pooling of Land (Percentage) of different sizes (1965-66)

<table>
<thead>
<tr>
<th>Size of Land</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $3\frac{1}{8}$ acres</td>
<td>40%</td>
</tr>
<tr>
<td>$3\frac{1}{8}$ to $6\frac{1}{2}$ acres</td>
<td>27%</td>
</tr>
<tr>
<td>$6\frac{1}{2}$ to $12\frac{1}{2}$ acres</td>
<td>20%</td>
</tr>
<tr>
<td>$12\frac{1}{2}$ to 25 acres</td>
<td>8%</td>
</tr>
<tr>
<td>Over 25 acres</td>
<td>5%</td>
</tr>
</tbody>
</table>

SOURCE: Cooperative Movement in Uttar Pradesh, \textsuperscript{(Hindi)} 1967.

At present 1,360 cooperative farming societies exist in Uttar Pradesh. They have 300 tractors, 200 boring wells, 230 pucca wells, 192 pumping sets and 15 rahats.\textsuperscript{1} The scheme of organising cooperative farming societies has also been given a push in the newly reclaimed areas. No doubt the initial cost was high but this investment bears a

\textsuperscript{1} Uttar Pradesh Sahkarita (Hindi), Department of Cooperation, U.P. Government, 1967 (Cooperative Farming, p. 2).
promise for future prosperity. Additional cultivable lands have been brought under cultivation and many improvements for better cultivation in the existing cultivated lands through these societies, e.g., fencing to protect from wild animals, hand bands to check outflow and waste of irrigation water, construction of pucca irrigation channels, construction of masonry wells, small tube-wells or handpumps for irrigation, have been constructed. On some farms cottage and small industries have also been developed. But due to poor implementation of the government policy, lack of finances and encouragement by the Cooperation Department, these industries have not developed.

The Fourth Plan lays down the target of organising 250 societies at the rate of 50 societies per year. However, in 1966-67 sixty-nine cooperative farming societies have been organised (Table No. 28). The Plan emphasises on the viability of farming societies. With this end in view intensive programme will be taken up in six selected pilot projects. As a part of this programme development of industrial cooperatives on the farms, full use of irrigation facilities, use of high yielding varieties of seeds, fertiliser, green manure, improved agricultural implements and plant protection programme will be initiated.

Financial help will be provided to the societies on the pattern of Third Plan with the exception that loan provided for cattleshed and godown amounting to Rs. 5,000.00 will not be given. However, an amount of Rs. 5,000.00 will be given for the development of subsidiary industries.

* The Fourth Plan of Uttar Pradesh is likely to start from April 1969. The Three years' period, i.e., 1966-67, 1967-68 and 1968-69, has been divided into three annual plans.
### TABLE 28

**Figures Regarding Cooperative Movement**

*(Cooperative Farming)*

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Year</th>
<th>Number of societies</th>
<th>Membership</th>
<th>Area in acre</th>
<th>Share capital (in lakhs)</th>
<th>Reserve Fund (in lakhs)</th>
<th>Working Capital (in lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1950-51</td>
<td>45</td>
<td>1,388</td>
<td>14,648</td>
<td>2.51</td>
<td>0.21</td>
<td>8.17</td>
</tr>
<tr>
<td>2</td>
<td>1955-56</td>
<td>246</td>
<td>4,500</td>
<td>50,962</td>
<td>13.30</td>
<td>1.28</td>
<td>39.70</td>
</tr>
<tr>
<td>3</td>
<td>1960-61</td>
<td>387</td>
<td>8,400</td>
<td>83,000</td>
<td>23.29</td>
<td>6.01</td>
<td>74.28</td>
</tr>
<tr>
<td>4</td>
<td>1961-62</td>
<td>501</td>
<td>11,002</td>
<td>15,728</td>
<td>26.88</td>
<td>7.93</td>
<td>69.67</td>
</tr>
<tr>
<td>5</td>
<td>1962-63</td>
<td>720</td>
<td>15,727</td>
<td>1,10,828</td>
<td>32.39</td>
<td>8.27</td>
<td>119.31</td>
</tr>
<tr>
<td>6</td>
<td>1963-64</td>
<td>447</td>
<td>19,254</td>
<td>1,29,478</td>
<td>39.12</td>
<td>10.22</td>
<td>158.54</td>
</tr>
<tr>
<td>7</td>
<td>1964-65</td>
<td>1,217</td>
<td>24,383</td>
<td>1,29,677</td>
<td>45.96</td>
<td>11.98</td>
<td>187.99</td>
</tr>
<tr>
<td>8</td>
<td>1965-66</td>
<td>1,360</td>
<td>26,500</td>
<td>1,63,000</td>
<td>47.11</td>
<td>13.00</td>
<td>188.38</td>
</tr>
</tbody>
</table>

**Source:** 'Cooperation in Uttar Pradesh', Hindi Edition, 1967, Department of Cooperation, Uttar Pradesh.
Moreover, an amount to the extent of Rs. 15,000 (Rs. 100 per acre) can be provided to these societies as long term loan for land improvement and development.¹

Now the cooperative farming society is required to fulfill the following conditions before it is registered:²

1. There must be at least 15 members of the society - 10 Bhumidars and 5 Sirdars.

2. Majority of the members shall be owner of small land and landless labourers. Absentee members and non-members should be less than one-fourth of the total number of members.

3. In case of irrigated land the society should possess at least 50 acres of land while in case of unirrigated area the minimum land should be 100 acres.

4. Capital should be raised in the form of share capital.

5. Land, manpower and other resources should be pooled together and cultivation should be carried on jointly.

These changes have been made for providing a check on future growth of such societies which are not genuine. It is expected that the new financial pattern and conditions for registration will help in promoting genuine cooperative farming societies. At the moment they are not yielding the desired results. They are neither economically viable nor providing better employment opportunities. The defects as pointed out by the Gadgil Committee are relevant for this study. They are

¹ Cooperation, U.P. Department of Cooperation, U.P. (Hindi), (Cooperative Farming), 1957, p. 5.
² Ibid., p. 5.
The Gadgil Committee has classified the Cooperative Farming Societies of Uttar Pradesh in the following categories:

I. Societies formed of small and medium farmers, closely bound by ties of kinship and caste.

II. Societies formed by small and medium farmers belonging to diverse caste and kinship group.

III. Societies in which the initiative was taken by a dominant group of bigger farmers, the other members being small farmers or landless workers.

IV. Societies formed by large landowners in order to defeat tenancy and land ceilings legislation; and

V. Collective farming societies formed on lands that were formerly un-reclaimed and under forest.

MOTIVATION

The societies of I and II group came into existence because of economic necessity. Members in these societies were motivated by a common desire to improve their agricultural production and living standard by pooling their resources. They found it practicable to do so by joining forces with others who belonged to a similar social and economic status. Societies of III and IV group were based on an uneven partnership of big and small farmers and have worked poorly. There was neither loyalty to the society nor desire to make it work efficiently.

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As regards the members' participation it was poor in all the types of societies.

**IMPROVED PRACTICES**

A number of societies have adopted improved practices. The societies of category I have comparatively poor finances and therefore the improved practices of a wide range have not been introduced on them. The collective farming societies and societies formed by big landowners stood better in this respect. They were found equipped with tractors and used improved seeds, introduced Japanese method of paddy cultivation, etc. Many of the societies have given high priority to improving their irrigation facilities in spite of financial difficulties and other short-comings. The societies have faced extreme difficulties in obtaining long and medium term loans for land improved. Most of the societies suffer from inadequacy of finances for carrying out the programme.

**EMPLOYMENT**

The societies have increased employment opportunities. In category I and II the employment potentialities are not generated so much as in the case of IV. However, it can be said that the societies did not face the problem of providing full employment to members. Apart from work in agricultural operations on the farm, few societies of I and II categories undertook subsidiary activities. In the societies of III and IV type the land-man ratio was clearly more favourable for full employment to members. As these societies mostly relied on non-members for day-to-day work on the farm, they did not take up any activities allied
to agriculture.

FINANCES The societies, in general have suffered from financial difficulties. Generally, societies have received financial assistance according to the pattern formulated by the Government of India and the additional assistance for the various developmental programmes has not been adequate. Even the short-term finance on the basis of production plans was rarely given. The medium and long term loans from cooperative agencies were also inadequate. As such, the societies had to depend more on their own resources. Where it was not possible to raise these (as in some societies of type I and II) the work has suffered. According to the Gadgil report, the societies of I and II category of small farmers the return for ownership of land was generally restricted to less than 25 per cent of the gross income. In certain cases it was not given at all. A high percentage of the gross income of the societies went as remuneration for work to members. But in case of societies of III and IV category a high percentage of the gross income went to casual workers.

From the above assessment of the Gadgil Committee, main conclusions of which supports the study undertaken by Agricultural Economies be Research Centre, University of Delhi, it can/concluded that in Uttar Pradesh genuine cooperative farming societies which fulfil our aim of pooling the small holdings for increasing agricultural production and strengthening themselves financially have not come into existence on a
large number. The societies of big land owners which defeat our aims of cooperative farming have mostly been organised. Such societies are not interested in developing agro-industries or providing labour. They have switched over to the use of machinery. No doubt they are successful but at the cost of our determination to strengthen the development of socialist pattern of society. In Uttar Pradesh the cooperative farming societies can be organised under Zamindari Abolition and Land Reforms Acts but it can be registered by the Registrar, Cooperative Societies, Uttar Pradesh. A characteristic feature is the use of 'compulsion' in the organisation of a society, which can be exercised under the Zamindari Abolition and Land Reforms Act of Uttar Pradesh.

The societies of small land owners have a definite tendency what may be said as the collectivisation of land on principles quite foreign to "cooperative joint farming." The Gadgil Committee has noticed one society of type II in which no return on land was paid. If such a beginning has been made then Otto Schiller is right in his assessment of the situation when he remarks that nearly all Asian countries are based on agricultural economies ... In their efforts to find a solution for these problems they are naturally influenced by the new social and economic agricultural policies of neighbouring communist countries, an influence which is intensified by systematic propaganda.

The planners are not yet clear whether cooperative farming has

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1 For details see his article, 'The Significance of the Soviet Agrarian system in Asian countries', Royal Institute of International Affairs, London, S.W.I., 1956.
been started as an incentive to small farmers to increase agricultural production by pooling their land and resources on cooperative principles or this will lead to cooperation of all type of holdings small and big in due course. In Uttar Pradesh middle group and big farmers have also been encouraged to join the societies. The membership of well-to-do farmers has defeated the basis aim of starting the programme. This fact is not evident from the records because the big cultivators have given a small piece of land for acquiring membership of the society which has enhanced the number of members having small holdings in the official record. Moreover, the Registrar, Cooperative Societies, Uttar Pradesh, has also granted membership of cooperative farming societies to corporate bodies under the powers vested in him which is a pointer to the fact that the department is not careful about the spirit behind the programme.

CONCLUSION

This chapter has emphasised the need for the formation of genuine cooperative farming societies to remove the backwardness of Uttar Pradesh’s agriculture and to develop the agro-industries.

The analysis of the present day cooperative farms reveals that they do not fit into a sensible definition of cooperative farming. The cooperative farming societies at present suffer from lack of finances and supplies of other farm requisites. In the absence of a clear cut

1 This fact was revealed by the Asstt. Registrar, Cooperative Societies, Bijnor, during his discussion with the author.
policy regarding the organisation and working of these societies, such
societies are at cross roads. They have defeated the aim of increasing
production and employment opportunities in order to better the economic
condition of small cultivators. Instead, they have activated political
parties in the villages who exploit their political ends through them.
The author has therefore recommended the formation of genuine cooperative
farming societies for the economic and social development of Uttar Pradesh.

To examine in detail the potentialities of cooperative farming
societies a case study of cooperative farming societies of Aligarh
district has been made in the next chapter.