 CHAPTER II

THE AGRICULTURAL DEVELOPMENT ENVISAGED DURING

THE FIRST FIVE YEAR PLAN
THE OBJECTIVES OF THE PLAN

The First Five Year Plan has been framed keeping the following objectives in view:

i) Firstly, the need to correct the maladjustment in the economy caused by the war and by the partition of the country into Indian Union and Pakistan in August, 1947;

ii) secondly, the need to rectify the dis-equilibrium in the allocation of resources in agriculture and industries, on the one hand, and to remove the mal-distribution of national income into different classes of the society on the other; and

iii) thirdly, the need to initiate simultaneously a process of all-round balanced development which would ensure a rising national income and a steady improvement in living standards over the period.

The achievements of these basic objectives largely depends upon a general development of agriculture, particularly increased production of foodgrains and raw materials. The First Five Year Plan includes a number of programmes, e.g., the Community Development and National Extension Services, Grow More Food Schemes, Multi-purpose projects, major and minor irrigation works, the primary objective of all these is to secure a rapid increase in agricultural production. Apart from the general desirability of making the best possible use of the land, a high priority has to be accorded to these programmes because of the pressing need to reduce dependence on imported food. The targets of agricultural production for the First Five Year Plan have been worked out in the light of some basic improvements expected to take place as a result of successful operation and implementation of certain specific development projects, such as, extension in the area of cultivation, a widespread use of

1 First Five Year Plan, p.70 and The Review of the First Five Year Plan, p.1.
chemical fertilizers and irrigation schemes etc., directly connected with agricultural sector. The total area of All Indian Union is 810 million acres approximately. The area not available for cultivation and area as fallow land consists of 117.4 million acres and 69.5 million acres respectively. It is, therefore, proposed to bring additional area under cultivation through reclamation, development of new lands and also by bringing fallow land under cultivation. Similarly efforts are needed to bring about more area under irrigation, to promote widespread use of manures, fertilizers and improved seeds, to cause wide application of protection schemes and adoption of methods of intensive agriculture. The targets of additional production envisaged in the Plan are show in the following table:

**TABLE 28**

THE TARGETS OF ADDITIONAL PRODUCTION DURING THE FIRST FIVE YEAR PLAN

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Unit</th>
<th>Quantity</th>
<th>Percentage increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foodgrains</td>
<td>million tons</td>
<td>7.6</td>
<td>14</td>
</tr>
<tr>
<td>Cotton</td>
<td>million bales</td>
<td>1.26</td>
<td>42</td>
</tr>
<tr>
<td>Jute</td>
<td>million bales</td>
<td>2.09</td>
<td>63</td>
</tr>
<tr>
<td>Sugarcane</td>
<td>million tons</td>
<td>0.7</td>
<td>12</td>
</tr>
<tr>
<td>(guar)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oilseeds</td>
<td>million tons</td>
<td>0.4</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: The First Five Year Plan, p. 208.
The target of 7.6 million tons of foodgrains comprise cereals and pulses that are given in the table below:

**TABLE 29**
THE TARGET FOR FOODGRAINS WERE TAKEN AS FOLLOWS
(Figures in million tons)

<table>
<thead>
<tr>
<th>Crop</th>
<th>Production in 1949-50</th>
<th>To be increased during the Plan period</th>
<th>Production in 1955-56</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>23.2</td>
<td>4.0</td>
<td>27.2</td>
</tr>
<tr>
<td>Wheat</td>
<td>6.3</td>
<td>2.0</td>
<td>8.3</td>
</tr>
<tr>
<td>Millets(Bajra and Jowar)</td>
<td>8.5</td>
<td>0.1</td>
<td>8.6</td>
</tr>
<tr>
<td>Other cereals</td>
<td>8.0</td>
<td>0.5</td>
<td>8.5</td>
</tr>
<tr>
<td><strong>Total cereals</strong></td>
<td><strong>46.0</strong></td>
<td><strong>6.6</strong></td>
<td><strong>52.6</strong></td>
</tr>
<tr>
<td>Gram and pulses</td>
<td>8.0</td>
<td>1.0</td>
<td>9.0</td>
</tr>
<tr>
<td><strong>Total foodgrains</strong></td>
<td><strong>54.0</strong></td>
<td><strong>7.6</strong></td>
<td><strong>61.6</strong></td>
</tr>
</tbody>
</table>

*Source: The First Five Year Plan, p. 75 and footnote on p. 208.*

In assessing the agricultural targets that have been shown in the above tables, the following considerations have been kept in view:

'(i) In the first place, allowance for seasonal variations cannot be made in advance, these variations are inherent in agricultural production itself and may extend to as

\[\text{The targets were fixed on the basis of crop production of the year of 1949-50. The reason of considering this year to fix the targets was the crop failure of 1950-51 which was an abnormal year and gave a total production of foodgrains amounting to 50.0 million tons only.}\]
much as 10 per cent of the average production thus upsetting all calculations.

(ii) Secondly, through crop-cutting experiments and other tests, fairly reliable yardsticks about the production effects of different measures are now available for a number of states. In addition, as far as possible, in suggesting the targets every State has tried to take into account its own experience over the past few years.

(iii) In the third place, estimates of increased production resulting from the programmes have been made on a cautious basis, especially in respect of scheme for the increased use of improved seed and manures and fertilizers.  

It is true that through improved agricultural practices and double-cropping, it is possible to secure a substantial increase in production in the course of few years. Moreover, until there is sufficient assurance that those practices have become part of the normal operations of agriculture in any area, there is some risk of over-estimation of the anticipated benefit. The agricultural programme consists of two parts, namely, (a) schemes of State Governments, which together account for a total net food production target of 6.0 million tons to be achieved at a total cost of Rs. 125 crores; and (b) supplementary schemes proposed by the Planning Commission to achieve additional food production of at least 1.6 million tons. The supplementary programmes which have been proposed are as follows:

(1) Additional provision for minor irrigation works. Rs. 30 crores
(2) Additional programme for the construction of tubewells. Rs. 6 crores
(3) National extension organization for intensive area development. Rs. 3 crores
(4) Supplementary allotment for Grow More Food during 1952-53. Rs. 10 crores
(5) Community projects, including 55 projects already initiated. Rs. 90 crores

The Plan presents a comprehensive programme for the achievement of the target of an additional production of 7.6 million tons of

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1 The First Five Year Plan, p. 208.
2 Ibid., p. 209.
foodgrains in a period of five years. Through the efforts of the State Governments it was expected to produce additional quantity of foodgrains amounting to 6.5 million tons of the contemplated total increase of 7.6 million tons. But a provision for a downward change that could take place in this additional amount has been made equivalent to 0.5 million tons. This downward change may be due to the diversion of area from foodgrains to commercial crops. The contribution of the State Governments toward increased production of foodgrains is expected to be 6.0 million tons, approximately. The remaining portion of additional production which amounts to 1.6 million tons is to be achieved through the operation of supplementary programmes. Additional minor irrigation works are expected to provide an increase in food production by 0.6 million tons; Community Projects and intensive development area projects by 0.5 million tons, and the additional fertilizers by a further 0.5 million tons. The detailed break-up of foodgrains targets are shown in the following table:

<table>
<thead>
<tr>
<th>Programme</th>
<th>Original</th>
<th>Supplementary</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major irrigation works</td>
<td>2008.7</td>
<td>-</td>
<td>2008.7</td>
</tr>
<tr>
<td>Minor irrigation works</td>
<td>1784.4</td>
<td>600.0</td>
<td>2384.4</td>
</tr>
<tr>
<td>Land reclamation and development</td>
<td>1512.5</td>
<td>-</td>
<td>1512.5</td>
</tr>
<tr>
<td>Fertilizers and manures</td>
<td>647.9</td>
<td>500.0</td>
<td>1147.5</td>
</tr>
<tr>
<td>Improved seeds</td>
<td>556.6</td>
<td>-</td>
<td>556.6</td>
</tr>
<tr>
<td>On account of Community Project</td>
<td>-</td>
<td>500.0</td>
<td>500.0</td>
</tr>
<tr>
<td><strong>Total gross targets</strong></td>
<td>6510.1</td>
<td>1600.0</td>
<td>8110.1</td>
</tr>
<tr>
<td><strong>Less on account of diversion to Commercial crops.</strong></td>
<td>500.0</td>
<td>-</td>
<td>500.0</td>
</tr>
<tr>
<td><strong>Net targets of foodgrains</strong></td>
<td>6010.0</td>
<td>1600.0</td>
<td>7610.0</td>
</tr>
</tbody>
</table>

Source: The First Five Year Plan, p. 209(Para 3), 210 and 217.
INVESTMENT IN THE AGRICULTURAL SECTOR DURING THE PLAN

1. Definition of Agricultural Investment.

Investment in agriculture during the First Plan was expected to overcome major and minor hindrances and also to provide positive encouragement to efficient and economic farming. The Government thought it better to take initiative in bringing about a change in the mental attitude, of the cultivating community through the adoption of different policies, initiation of new type of organisation and the setting up of institutions of new types in the agricultural sector. Through the adoption of such policies, the aim of the Government was to favour cultivators who in turn were to be induced to invest more and more in land, to look after it more carefully, to improve the technique of cultivation and thus to work towards in levelling bunding, draining, reclamation and conservation of land, in creating more facilities for irrigation, manures and fertilizers, seeds in providing better equipment and implements and lastly in improving the conditions of livestock. ¹ The idea behind this increased investment was to obtain better results both qualitatively and quantitatively. It meant that the investment in agriculture must bring about an increase in productivity on the one hand, and an improvement in its quality on the other. At present in our agricultural production we are not only suffering from low productivity but the production is also lacking in quality. In the case of Indian wheat, we find that the per acre yield of wheat is not only low comparatively but it is also poor in calorific value. Therefore,

¹ Khusro, A.K., Economic and Social Effects of Jagirdari Abolition and Land Reforms in Hyderabad, chapter XII on Investment.
the principal technical programmes for increasing agricultural production, around which incentive to work is to be organised, are:

i) irrigation,
ii) soil conservation, dry farming and land reclamation;
iii) supply of fertilizers and manures;
iv) seed multiplication and distribution;
v) plant protection
vi) better ploughs and improved agricultural implements and adoption of scientific agricultural practices.


The First Five Year Plan envisaged a total developmental outlay of Rs. 2,069 crores by public authorities over the period of 1951-56.¹ Out of this total outlay, the Plan contemplated an outlay of Rs. 360.43 crores, on what might be termed Agriculture and Community Development as a whole (excluding, however, the big irrigation and power projects). In the following table the distribution of this outlay on different agricultural heads contributed by the Centre and State Governments has been shown:

<table>
<thead>
<tr>
<th>Total Development Expenditure under the Plan: Centre and State</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Agriculture and Community Development</td>
<td>Rs. 360.43 crores</td>
</tr>
<tr>
<td>2. Irrigation and power</td>
<td>Rs. 561.41 crores</td>
</tr>
<tr>
<td>3. Transport and communications</td>
<td>Rs. 497.10 crores</td>
</tr>
<tr>
<td>4. Industry</td>
<td>Rs. 173.04 crores</td>
</tr>
<tr>
<td>5. Social Services</td>
<td>Rs. 339.31 crores</td>
</tr>
<tr>
<td>6. Rehabilitation</td>
<td>Rs. 85.00 crores</td>
</tr>
<tr>
<td>7. Works and buildings</td>
<td>Rs. 11.85 crores</td>
</tr>
<tr>
<td>8. Finance Ministry Schemes</td>
<td>Rs. 4.40 crores</td>
</tr>
<tr>
<td>9. North-East Frontier agency</td>
<td>Rs. 3.00 crores</td>
</tr>
<tr>
<td>10. Andamans</td>
<td>Rs. 3.83 crores</td>
</tr>
<tr>
<td>11. Loans to Corporations</td>
<td>Rs. 12.00 crores</td>
</tr>
<tr>
<td>12. Miscellaneous</td>
<td>Rs. 17.74 crores</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>Rs. 2068.78 crores</strong></td>
</tr>
</tbody>
</table>
TABLE 31.  
DEVELOPMENT EXPENDITURE IN AGRICULTURAL SECTION UNDER THE PLAN BY CENTRE AND THE STATES  
(In crores of rupees)

<table>
<thead>
<tr>
<th>Head</th>
<th>Part 'A'</th>
<th>Part 'B'</th>
<th>Jammu</th>
<th>Part 'C'</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Centre</td>
<td>States</td>
<td>States and Kashmir</td>
<td>Centre</td>
<td>States</td>
</tr>
<tr>
<td>Agriculture</td>
<td>59.2</td>
<td>91.1</td>
<td>27.7</td>
<td>0.22</td>
<td>5.99</td>
</tr>
<tr>
<td>Veterinary and animal husbandry including dairying</td>
<td>4.1</td>
<td>15.25</td>
<td>1.38</td>
<td>0.15</td>
<td>0.79</td>
</tr>
<tr>
<td>Forests</td>
<td>2.0</td>
<td>6.00</td>
<td>2.25</td>
<td>0.10</td>
<td>1.35</td>
</tr>
<tr>
<td>Co-operation</td>
<td>0.50</td>
<td>4.98</td>
<td>1.25</td>
<td>-</td>
<td>0.44</td>
</tr>
<tr>
<td>Fisheries</td>
<td>0.51</td>
<td>3.33</td>
<td>0.73</td>
<td>-</td>
<td>0.08</td>
</tr>
<tr>
<td>Rural development</td>
<td>-</td>
<td>6.74</td>
<td>3.72</td>
<td>-</td>
<td>0.01</td>
</tr>
<tr>
<td>Community Projects</td>
<td>90.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Local works</td>
<td>15.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Programmes for scarcity affected areas</td>
<td>15.00</td>
<td>25.35</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>186.35</td>
<td>127.31</td>
<td>37.64</td>
<td>0.47</td>
<td>8.66</td>
</tr>
</tbody>
</table>

II Irrigation and power:

<table>
<thead>
<tr>
<th></th>
<th>Multi-purpose Projects</th>
<th>Irrigation projects</th>
<th>Power projects</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>265.90</td>
<td>-</td>
<td>-</td>
<td>265.90</td>
</tr>
<tr>
<td>Irrigation projects</td>
<td>- 112.34</td>
<td>50.13</td>
<td>3.67</td>
<td>188.00</td>
</tr>
<tr>
<td>Power projects</td>
<td>- 9.38</td>
<td>31.36</td>
<td>0.75</td>
<td>127.54</td>
</tr>
<tr>
<td>Total</td>
<td>265.90</td>
<td>206.09</td>
<td>81.48</td>
<td>561.41</td>
</tr>
</tbody>
</table>

Grand Total | 452.25 | 333.40 | 119.12 | 4.89 | 12.17 | 921.84 |

Source: The First Five Year Plan, p. 88.

Agriculture and Community Development is a comprehensive description for several items of reconstruction which include, besides agricultural production, livestock improvements and dairying, forests and soil conservation, co-operation and village panchayats. The Plan
makes a total provision of about Rs. 360.43 crores of which Rs. 184.22 crores is for agriculture, Rs. 100.47 crores for Community Projects and Rural Development, Rs. 22.28 crores for animal Husbandry and Dairying, Rs. 15 crores for development programmes in scarcity affected areas and about Rs. 12 crores for forests and soil conservation.

In the above table the outlay on the projects combined with irrigation that has been excluded amounts to Rs. 168 crores approximately while multi-purpose projects combining power and irrigation, involve a further outlay estimated at about Rs. 266 crores. This programme is based on an appraisal of the needs of the economy as a whole and is related to an assessment of the effort that is likely to be forthcoming from the private sector, as the Plan states:

'In the case of agriculture, where the problem is primarily one of providing irrigation, fertilizers and manures, better seeds, as well as extension services which will carry to the farmer the know-how of technical improvements, the supplemental investment required would to a great extent be in the form of direct contributions of labour by the farmers themselves.'

It is in the light of these observations that the distribution of the total planned outlay in agriculture, Community Development, irrigation and multi-purpose projects as between the Centre and the States has been shown in the above table.

3. The Highest Precedence to Agricultural Development in the Plan.

Investment is indispensable and inevitable for any kind of production which consists of either production of agricultural goods

1 First Five Year Plan, p. 88.
2 Ibid., p. 75.
or the production of factory goods for consumption or the production of machinery. The idea of investment, in goods is closely attached to the industrial sector. In this sector, investment becomes stronger and stronger not merely in its autonomous capacity, but also in its induced capacity. However, the trumpet success of planning depends on the proportional and justified allocation of resources on the production of above mentioned type of goods in each sector. In allocating the country's resources it is argued that the total resources should be allocated in such a way that a balanced growth at the fastest possible rate should be achieved without causing any discrimination and conflict between important sectors of the economy. The Plan views that:

"In an underdeveloped economy with low yields in agriculture, there is of course no real conflict between agricultural and industrial development. One cannot go far without the other; the two are complementary." ¹

A heavy investment in agriculture and consumer goods industry will, no doubt, bring about a faster rate of growth in the short period but it will, at the same time, confine its growth to the present generation only.² The problem of allocation of funds among different sectors creates a situation which the plan explains in the following words:

"There is, to begin with, the problem of choosing, on the one hand, between a moderate increase in the standard of life in the near future with relatively small additions to capital equipment and, on the other hand, a substantially higher standard of life perhaps for the next generation at the cost of continued austerity and privation to the present generation in the interest of rapid capital formation."³

Now if we look at the Plan we find that the bulk of outlay in the public sector has been devoted to agriculture and irrigation (including multi-purpose projects). In fact, agriculture, Community

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¹ The First Five Year Plan, p. 44
³ The First Five Year Plan, p. 30.
Development, Irrigation and Power accounted for about 44.5 per cent of the total outlay of Rs.2,069 crores. Thus in the First Plan, comparatively less attention has been paid to the development of industrial sector. The result is that only 8.3 per cent of the total provision for the public sector is meant for industry and mining.

The low developmental potential of the agricultural sector in an underdeveloped country accounts for the backwardness of agriculture in such economies. There is, therefore, a great need for co-ordinated effort to remove this backwardness and to raise the developmental potentialities. The increase in foodgrains has been held necessary by the Commission, first, in order to make good the general deficit in foodgrains and to feed the additional population that is increasing at the rate of 1.25 per cent per annum. Moreover, the development of agriculture is also necessary to create greater developmental potentialities in industrial sector. This is because the rate of growth of the industrial sector mainly depends on the trends in the supply of wage goods, especially foodgrains. The main reason for a low development potential in the industrial sector and industrial backwardness of an underdeveloped country can be accounted for in terms of a food barrier or a land barrier. In the absence of scientific methods of cultivation, the law of diminishing returns operates vigorously in reducing the marginal productivity of agriculture. A high rate of increased population presses necessarily against limited land and with this consequence that the food supply tends to be rigid. The vital task, therefore, was to remove or overcome the food barrier and this could be effectively done only by raising development potential of agriculture.¹ If this problem is tackled efficiently,

¹ The First Five Year Plan, chapter II.
then the inelastic food supply curve would have an upward shift due to more food production and there would be strong grounds to undertake a wide programme of industrialization in the country.

Even in countries like Great Britain, where planning was not adopted for economic growth, an agricultural revolution preceded an industrial revolution, and it was the reorientation of agriculture that increased agricultural productivity and released surplus labourers for industry. Moreover, in U.S.S.R. the creation of sizeable surplus in the agricultural sector and mobilization of the same for sustaining increased employment in other sectors has been fundamental to the economic development in the twenties and thirties. Therefore, this basic relationship between agriculture and industry cannot be ignored when planning is adopted for an all round development and ultimately for industrialization of an underdeveloped economy. It is of fundamental importance that during the initial stages of the process of planned economic development, which aims at ultimate industrialization of the economy, proper methods are adopted for pushing up the low development potential of the agricultural sector. This explains why in India's First Five Year Plan the major emphasis was laid on agriculture and irrigation.

The Indian Planning Commission have clearly stated their policy in connection with the priorities:

'For the immediate five year period, agriculture including irrigation and power, must in our view have the top most priority. For one thing, this emphasis is indicated by the need to complete projects in hand. But, further, we are convinced that without a substantial increase in the production of food and of raw materials needed for industry, it would be impossible to sustain a higher tempo of industrial development.'

1 Ibid., para 46.
2 Ibid., p. 44.
MEASURES TO INCREASE AGRICULTURAL PRODUCTIVITY AND OUTPUT

1. Chemical Fertilizers and Farmyard Manure.

The Plan envisaged a large increase in the production of both ammonium sulphate and superphosphate. In 1950-51 the production of ammonium sulphate was of the order of 46,000 tons and superphosphate 55,000 tons. It is, however, expected that during the course of the Plan, the annual production will increase to 4.5 lakh tons of ammonium sulphate and 1.8 lakh tons of superphosphate. This increased quantity of fertilizers will be obtained from Sindri Fertilizer Factory and other factories in Travancore - Cochin. The total quantity of farmyard manure used at present probably does not exceed 40 crores tons. There are schemes for ensuring a large expansion of the use of this type of manure. Urban compost available for distribution to cultivators was 10.6 lakh tons in 1950-51, it is estimated to increase to about 30 lakh tons by 1955-56.¹ The programme in the Plan as such:

'Agricultural programmes of the States assume an annual supply of 446,000 tons of nitrogenous fertilizers, 79,000 tons of superphosphates and 20,000 tons of bonemeal. It is expected, however, that during the course of the Plan the quantities which would in fact be available, after allowing for plantations and industries and assuming imports at an annual figure of about 1,50,000 tons, will be 610,000 tons of nitrogenous fertilizers and 1,75,000 tons of superphosphates in addition to 50,000 tons of bonemeal.'²

2. Irrigation Programme.

Irrigation programme has been tackled under two heads — major and minor irrigation works. The total area expected to be brought

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¹ The First Five Year Plan, p. 76.
² Ibid., p. 212.
under irrigation by means of major and minor irrigation works is of the order of 168 lakhs acres (or more than a third of the net area actually irrigated in 1949-50). This exclusive of 30 lakh acres to be served by minor irrigation works for which additional grant of Rs. 30 crores\(^1\) is to be provided by the Centre. The Plan envisages the following extension of irrigated area through different sources.

**TABLE 32**

THE EXTENSION OF IRRIGATION DURING THE PLAN PERIOD

<table>
<thead>
<tr>
<th>Cultivated Area in 1949-50</th>
<th>330574</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigated Area in 1949-50</td>
<td>48913</td>
</tr>
<tr>
<td>Extension of irrigation</td>
<td></td>
</tr>
<tr>
<td>during the Plan Period through:</td>
<td></td>
</tr>
<tr>
<td>Major works</td>
<td>8475</td>
</tr>
<tr>
<td>Minor works</td>
<td>8278</td>
</tr>
<tr>
<td>Additional grant</td>
<td>3000</td>
</tr>
<tr>
<td>Area to be under irrigation till the end of 1955-56</td>
<td>68648</td>
</tr>
<tr>
<td>Irrigated Area as percentage of cultivated area</td>
<td></td>
</tr>
<tr>
<td>In 1949-50</td>
<td>14.7</td>
</tr>
<tr>
<td>In 1955-56</td>
<td>20.7</td>
</tr>
<tr>
<td>Percentage increase in irrigated area</td>
<td>40.3</td>
</tr>
</tbody>
</table>

Source: The First Five Year Plan, Pp. 79, 209, 220, 221.

The additional area to be brought under irrigation **through** major projects alone (multi-purpose as well as others) is about 8.5 million acres. Some important ones such as Bhakra Nangal (Punjab), Damodar Valley (Bihar) and Hirakud (Andhra) are expected together to cover 6.5 million acres. The projects already under construction are estimated to cost on completion Rs. 765 crores, an amount

\(^1\) Ibid., p. 209.
which may even exceed on account of an increase in costs over the sanctioned estimates. The total may reach anywhere near Rs. 1,000 crores and the Plan provides for an expenditure of Rs. 518 crores in addition to Rs. 153 crores already spent over these schemes till March 1951. On their completion there will be an addition of 8.5 million acres in the irrigated area by 1955-56 and of 16.9 million acres ultimately. The electric supply will increase by 1.08 million kilowatts and 1.45 million kilowatts in the respective periods. The successive expenditure and progress has been worked out as follows:

**TABLE 33.**

**MULTI-PURPOSE PROJECTS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Expenditure (Rs. crores)</th>
<th>Additional irrigation (thousand acres)</th>
<th>Additional Power (thousand KWs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951-52</td>
<td>85</td>
<td>646</td>
<td>58</td>
</tr>
<tr>
<td>1952-53</td>
<td>121</td>
<td>1,890</td>
<td>239</td>
</tr>
<tr>
<td>1953-54</td>
<td>127</td>
<td>3,555</td>
<td>724</td>
</tr>
<tr>
<td>1954-55</td>
<td>107</td>
<td>5,749</td>
<td>875</td>
</tr>
<tr>
<td>1955-56</td>
<td>78</td>
<td>8,533</td>
<td>1,082</td>
</tr>
<tr>
<td>Ultimate</td>
<td>-</td>
<td>16,942</td>
<td>1,465</td>
</tr>
<tr>
<td>New Schemes</td>
<td>40</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Five year's total</strong></td>
<td><strong>558</strong></td>
<td><strong>37,315</strong></td>
<td><strong>4,443</strong></td>
</tr>
</tbody>
</table>

The minor irrigation projects that include construction of dams, channels, tubewells, tanks, etc., are expected to irrigate about 83 lakh acres. The minor irrigation programme that will
bring 11.2 million acres area under irrigation is as follows:

<table>
<thead>
<tr>
<th>TABLE 3a</th>
</tr>
</thead>
<tbody>
<tr>
<td>MINOR IRRIGATION WORKS DURING THE PLAN PERIOD</td>
</tr>
<tr>
<td>(In million acres)</td>
</tr>
</tbody>
</table>

(a) Scheme of State Government

1. Dams and Channels 4.4
2. Wells (new and repaired) 1.6
3. Tubewells (other than those included under major irrigation) 0.7
4. Pumping installations 0.7
5. Tanks (improved and construction) 0.8

(b) Additional Minor Irrigation Programme (Rs. 30 crores) 3.0

Grand Total 11.2

Source: The First Five Year Plan, pp. 79, 211, 221.

3. Improved Seed.

The production of improved nucleus seeds is generally carried on in Government Farms, while multiplication and distribution are sought to be ensured by co-ordination between the State and the farmer. In a few instances, the distribution takes place through co-operative societies. On the whole the purity of nucleus tends to be impaired in the present system of multiplication and distribution. The Planning Commission have recommended measures to ensure that a large number of cultivators are able to obtain pure seed direct from the State. The Plan envisages an increase of about 557 thousand tons in the production of foodgrains through the use of better seeds till the end of the Plan period.
4. Land Reclamation and Development Scheme.

Land reclamation schemes are estimated to bring about 73.8 lakh acres under the plough. Of these 14.2 lakh acres are to be reclaimed by the Central Tractor Organization, 12.0 lakh acres by the State Tractor Organization, 10.8 lakh acres by co-operatively or privately owned tractors and the balance of 36.9 lakh acres by the means other than tractor ploughing. The Plan also provides for land improvement operation such as bunding and drainings to the extent of about 3 million acres and extension of mechanized cultivation to the extent of 3.4 million acres. The Plan envisages an increase in the production of foodgrains on account of land reclamation and development programme after the completion of the Plan period. The details of these programmes are as follows:

**TABLE 35.**

**LAND RECLAMATION AND DEVELOPMENT DURING THE PLAN PERIOD**

(In thousand acres)

<table>
<thead>
<tr>
<th>Land Reclamation through:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Central Tractor Organization</td>
<td>1416.0</td>
</tr>
<tr>
<td>2. State Tractor Organization</td>
<td>1199.1</td>
</tr>
<tr>
<td>3. Private Parties with State Help</td>
<td>1076.6</td>
</tr>
<tr>
<td>4. Other means including Fellows</td>
<td>3689.6</td>
</tr>
</tbody>
</table>

Total Area to be reclaimed 7381.3

<table>
<thead>
<tr>
<th>Land Development through:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bunding and Drainage etc.</td>
<td>3032.9</td>
</tr>
<tr>
<td>2. Mechanical Cultivation.</td>
<td>3427.8</td>
</tr>
</tbody>
</table>

Total area to be developed 6460.7

Source: The First Five Year Plan, p. 222.
5. **Increase in the Acreage Under Different Crops.**

The total cropped area in the country is expected to increase by about 10 million acres at the end of the Plan's initial five years. Projects for land reclamation and development alone account for nearly three-fourth of the increased acreage and anticipated increase of three million acres in double cropped area. The expected increases in the acreage of individual crops are as follows:

**TABLE 36**

THE EXPECTED AREA UNDER DIFFERENT CROPS AT THE END OF THE FIRST PLAN

<table>
<thead>
<tr>
<th>Crop</th>
<th>Area in lakh acres</th>
<th>Increase or decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in 1950-51</td>
<td>in 1955-56</td>
</tr>
<tr>
<td>Rice</td>
<td>760</td>
<td>800</td>
</tr>
<tr>
<td>Wheat</td>
<td>240</td>
<td>270</td>
</tr>
<tr>
<td>Other cereals</td>
<td>930</td>
<td>900</td>
</tr>
<tr>
<td>Gram and Pulses</td>
<td>472</td>
<td>490</td>
</tr>
<tr>
<td>Cotton</td>
<td>146</td>
<td>180</td>
</tr>
<tr>
<td>Jute</td>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td>Sugarcane</td>
<td>42</td>
<td>45</td>
</tr>
<tr>
<td>Oilseeds</td>
<td>267</td>
<td>270</td>
</tr>
<tr>
<td>Fruits and Vegetables</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>Other crops</td>
<td>250</td>
<td>240</td>
</tr>
<tr>
<td><strong>Total Area</strong></td>
<td><strong>3,171</strong></td>
<td><strong>3,275</strong></td>
</tr>
</tbody>
</table>

Source: The First Five Year Plan, p. 214.
THE CO-OPERATIVE APPROACH TO AGRICULTURE

The Plan emphasized the principle of co-operation and regarded it as of basic importance to the development of social and economic life of the nation in the following words:

'The principle of mutual aid, which is the basis of co-operative organization; and the practice of thrift and self-help which sustain it, generate a sturdy feeling of self-reliance which is of basic importance in a democratic way of life.'

The co-operative movement in India during the planning is based on the following considerations:

1. The development of the co-operative movement directs towards intensifying agricultural production. It aims at mobilizing local manpower and, in general terms, rebuilding rural economy.

2. For this purpose, co-operation will organise on the basis of village community as the primary unit. Co-operation will develop as peoples' movement and it will bring within its fold all village and rural families.

3. Each primary co-operative society will draw up a comprehensive programme for increased agricultural production in the village. The grant of credit will be closely linked with such a programme.

4. To achieve the objective of increased agricultural production and the re-building of rural economy, rural co-operatives will undertake various specific measures. Such measures include full use of irrigation facilities available, and application of improved agricultural techniques. Other programmes of importance for the rural economy, such as the promotion of animal husbandry and village industries will also be undertaken by the co-operatives.

1 The First Five Year Plan, p. 163.
5. In order to promote the increased agricultural production, it will be necessary to provide credit on a larger scale.

6. Co-operative marketing will be linked with credit. Arrangements will be made to collect the surplus agricultural produce from farmers through village co-operatives and marketing societies at assured prices. This will insure larger supplies of foodgrains for meeting the needs of urban areas. It will also provide larger credit facilities for the rural areas. The programme of co-operative production, especially of food crops, will be enlarged.

7. Training programme on a large scale will be organised for village leaders to serve on co-operatives.

8. Taccavi loans and other facilities will be channelled through co-operatives. This and similar measures will induce villagers to join co-operatives.

Thus, the co-operative programme envisaged in the Plan expects to cover the entire rural economy and promises to promote general development of agriculture through the adoption of the following:

i) the co-operative farming;
ii) the co-operative finance; and
iii) co-operative marketing.

1. The Co-operative Farming.

Co-operative farming is desirable and even necessary for the utilization of advantages of modern scientific equipment and practices, for reducing cost and increasing production. But the Plan adopts a somewhat different approach to the problem of co-operative farming. The objective put forth in the Plan is co-operative village management so that all the land, manpower and other resources of village may be organised and developed for the benefit of the village
community as a whole. As an immediate programme, both small and medium-farmers are to be encouraged and assisted to group themselves voluntarily into co-operative farming societies. Gradually as co-operative farming will develop, the entire area of the village, both cultivated and uncultivated will be brought within the co-operative fold and managed as if it was a single farm.

The importance of co-operative farming has been briefly summed up by the Indian Delegation to China in the following words:

"Co-operative farming will enable the fuller utilization of the capital resources, reduction of cost, and mobilising savings and capital formation. It will also offer opportunities for utilizing a part of the labour force for improving village communications and housing and for the provision of other social amenities. Planning at the village level will become possible. Besides, it will provide opportunities of working together for the various groups of people now held apart by social and communal divisions and thus bring about increasingly an emotional integration of the people into a living entity."

The Planning Commission, however, recommended the general practice of co-operative farming in the following manner:

"While the controversy between voluntary and compulsory formation of co-operative farms may at this stage be avoided, it can be suggested that in any area where a majority of holders representing at least half of the total area under cultivation desire to establish a co-operative farm, legislative means should be at their disposal to proceed with the formation of a co-operative farming society for the whole village. The State on its part should do everything in its power to encourage the establishment of such farms and to promote their satisfactory working afterwards."

In order to step up agricultural production the co-operative farming society may prepare a plan for increased farm output by persuading its members to adopt any of the following ways:

i) Adoption of scientific and modern methods of cultivation;
ii) application of new techniques of production including use of improved seed, organic and inorganic manure, intensive cultivation;

1 The Report of Indian Delegation to China on Agrarian Co-operatives, p. 182.
2 The First Five Year Plan, p. 167.
iii) change in rotational and cropping pattern with due regard to balance cropping;
iv) development of ancillary occupations like dairy, poultry, animal husbandry, pisciculture, sericulture, beekeeping etc;
v) gradual replacement of the livestock by improved strains.

2. Agricultural Finance Through the Co-operative Societies.

The Central Banking Inquiry Committee emphasized the importance of such societies in the following words:

'This appears to be natural not only because credit is the simplest example of co-operative endeavour that can be introduced among rural population which is largely illiterate, but also because credit continues to be most insistent need of the Indian cultivator, who is weighted down by the burden of usury and chronic debt which crush the life and thought of rural India'.
The Planning Commission made a detailed study of the movement throughout the country and it concluded:

'The progress and achievements of the movement in Bombay, Madras and the other co-operatively advanced States prove that co-operatives are the most effective agency for providing finance for agricultural purposes.'

It, therefore, recommended that the co-operative credit structure has to be strengthened at various levels in each State. The manner in which this may be brought about depends upon the conditions prevalent as well as the needs of the State.

By 1955-56 a third of the agricultural population is contemplated to be brought within the ambit of the primary credit societies. For meeting the short-term requirements of credit the rate of short-term credit formation should at last be doubled through the efforts of the co-operative movement and the government lending of funds. The Plan further provides Rs. 25 crores per annum for medium-term finance. For this purpose the Reserve Bank is expected to promote the creation of a sound co-operative system of rural credit and liberalize its procedures for accommodating the requirements of co-operative banks. The Reserve Bank Act has been amended to enable the Bank to advance such credit up to a maximum of Rs. 5 crores.

According to the Planning Commission:

'The co-operatives will not, therefore, be really effective agencies for credit unless they are in a position to grant these so called medium term loans which are essential to large production.'

The Grow More Food Enquiry Committee estimated an annual requirements of Rs. 100 crores for short-term agricultural credit. The First Five Year Plan, however, sets a total target of Rs. 130 crores per

1 Ibid., p. 236.
2 Ibid., p. 239.
annum for short, medium and long-term agricultural credit.¹


Agricultural marketing is another aspect of co-operative approach to agriculture for giving the best return to cultivators of their production because it is said, 'The future of production lies in the fate of marketing.'² And our Plan states:

'The disposal of the produce after the harvest and the return obtained, therefore, also have a significant effect on production and on the welfare of the cultivator.'³

The farmer has to dispose of his produce immediately either to the moneylender or to the landlord in the village or in the mandi because the moneylender or the mandi arhatya (broker) advances loans to the farmers for securing production requirements like seeds, manures and for meeting other needs. The farmers are in need of cash for meeting their dues and expenses. So their debts sometimes carry an understanding or an obligation to sell the produce to or through the lender or his nominee. At the time of sale, the position of advantage occupied by these persons or agencies is reflected either in a lower price or unfair weights or delayed settlement. Moreover, the sale of agricultural produce involves a number of functions such as assembling, storing grading, standardizing, transporting and financing the produce and negotiating sale. Most of these operations are not performed by the farmers satisfactorily due to a lack of specialized knowledge and inadequate resources. In the absence of staying power, the large number of small farmers compete with each other and they suffer from the wastage and losses of such competition.

¹ Development of Co-operatives, Ministry of Community Development and Co-operation, 1960, p. 1
³ The First Five Year Plan, p. 242.
The Plan recommended measures to promote co-operative agricultural marketing and it also recommended the establishment of regulated markets for agricultural produce. It, however, pointed out certain difficulties also:

'The benefits of a regulated market which attempts only to improve the existing practices are limited; without changing the marketing structure the number of middlemen and costs cannot be reduced.'

Co-operative marketing is the most organised effort in this direction as according to the Plan:

'Co-operative marketing linked with production, finance and co-operative ownership of processing industries will be a useful instrument in increasing production, cutting costs and introducing a system of crop planning.'

1 Ibid., p. 243.
2 Ibid., p. 246.
COMMUNITY DEVELOPMENT AND NATIONAL EXTENSION SERVICES

The Community Development and National Extension Services Programmes have been outlined in the Plan as essential for intensive development designed to cover every family in the countryside and also to secure and coordinate a balanced development of all aspects of village life. Centres like Sevagram in Madhya Pradesh, Firka Development Scheme in Madras, Sarvodaya Centre in Bombay, in Etawah, in Gorakhpur represented post-war efforts on the State level to increase agricultural production and to remove the poverty that prevailed among the agriculturists. Therefore, it is not an entirely new concept. But the Plan decided to undertake Community Development and National Extension services Programmes on an all India basis. When the first set of Community projects were launched during the First Five Year Plan period, Community Development was described as the Method and rural extension as the Agency through which the transformation of the social and economic life of the villages was to be brought about. The development of rural folks is of utmost importance to national development and by far the greatest contribution to national development that Community development can make is the gradual transformation of village people from men-reliant on their old ways to self-reliant, responsive citizens, capable of, and willing to participate effectively and with knowledge and understanding in the building of the nation. According to Jayaprakash Narayan, Community Development Programme includes everything — the creation of new social order and way of life, industrialization, agricultural development, education, health employment, conquest of poverty, finally planning and a host of other

1 The First Five Year Plan, p. 223.
The objective of this programme is not only to promote material welfare by channelling to the people the benefits of science and new techniques but also to create in the people outlook and capacity which will enable them to understand and solve their own problems through coordinated and co-operative efforts as described by V.T. Krishnamachari in the following words:

'The aim of the National Extension Service is not merely to provide for ample food, clothing, shelter, health and recreational facilities in the village. All these are there, but what is emphasised is a change in the mental outlook of the people, the instilling in them of ambition for higher standards of life and the will and the determination to work for such standards.'

1. Objectives of the Programme.

In order to appreciate the broad objective outlined above, some more specific objectives of the Community Development and National Extension Services Programme should be kept in mind. Some of the important ones are the following:

i) **Self-Involvement** the first of these is a sense of involvement on the part of village people, a feeling that they too are participating in helping to meet the great challenge of remaking the social and economic shape of the new nation. This has important political and economic remifications for national development. Politically it is a pre-requisite for the growth of a system that is at once democratic and stable. The creation of Community Development of a sense of involvement will make an important economic contribution to the national development. The people themselves will participate in and will sustain, the execution of the projects and this kind of participation

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2 Krishnamachari, V.T., Community Development in India, 1958, p.11.
will be forthcoming only because the people will also form a part of the planning process and because the programmes under way will grow out of the needs and desires of the people themselves.

ii) Two-Way Communications Another objective of the programme to national development which will be made is the establishment of two-way lines of communication between the people and all levels of governments. The importance is not be minimized. On the one hand, the government, particularly at State and Central level will have an open channel through which communication from the village will flow and its programmes will remain in touch with the needs and hopes of the people themselves. At the same time it is important that all village people will have the understanding that the government is concerned about their welfare and reaching out and joining hands with them in working together for the common good. Furthermore, the people will understand that the government is reaching to join hands in helping them help themselves. They will also realise that their own voices will have meaning as their problems and aspirations are voiced and moved up through channels from the village to the block to the district to the State, and finally to the Union level. In some way, the people will have faith in the efficiency of the communication process so that they will know that their own thoughts, ideas and experiences are of importance in the overall set-up.

iii) Economic Development Community Development is expected to contribute to economic development and from one point of view, this will be its primary contribution to national development; for without boost in the rural economy, the villagers cannot be expected to demand many commodities and services that are supposed to indicate a fundamental attitudinal change.
From the economic point of view, Community Development's principal contribution will be the mechanism that it will provide for the mobilization of resources to meet a particular problem, or set of problems. Perhaps the Community Development is the only way that the diverse resources, technical and financial, available to the administration, will be brought to bear upon one particular problem. Agriculture is a good instance in this respect and the first priority here will be the improvement in agricultural production which Community Development will bring about. As agricultural development is an integral part of rural culture so the farmers can be expected to respond more energetically and swiftly to the demand for increased food production through a comprehensive programme of Community Development instead of any other technical programme of purely technical nature.

iv) Social Change There are the following three directions in which a social change is to be brought about:

(a) Increased employment and increased production through a widespread application of scientific methods in horticulture, animal husbandry, fisheries, etc., and the establishment of subsidiary and cottage industries;

(b) Self-help and self-reliance and the largest possible extension of the principle of co-operation;

(c) Harnessing a portion of the vast unutilized time and energy in the countryside for the benefit of the community.

v) Cultural Change In the course of development of rural life, economic Planners will be faced with the problem of reconciliation and integration of pure economic programmes with the programme of an overall development of scientific culture in rural India. This will be an important contribution to the general development of the nation. By taking this programme to the people and allowing it to grow out of their own needs and wants, it at once will be related to the contemporary on-going cultural process.
There are some of the important measures meant to transform the basic attitudes of the rural community. But there are also some direct administrative and economic objectives which Community Development envisages to achieve. Community Development will provide means of administrative co-ordination and an organisational structure through which various technical ministries will channel their efforts and through which the available administrative talent will be utilized optimally.

2. Relationship Between Community Development and National Extension Services.

The Community Development and National Extension Services are the two movements that have identical aims. The National Extension Service is a permanent organisation and will cover the whole country. In the Plan the National Extension Service has been described as follows:

'The organisation of extension services with the object of securing increased production and raising the standard of village life is a new understanding. Extension is a continuous process designed to make the rural people aware of their problems, and indicating to them ways and means by which they can solve them. It thus involves not only education of the rural people in determining their problems and the methods of solving them but also inspiring them towards positive action in doing so.'

Thus both movements appear to be different two stages of one programme. The National Extension Service is pre-community development stage for two years and the other is the Community Development stage for three years. In the former stage, the confidence of the farmer will be gained and they will be shown the scope that exists for stepping-up agricultural production thereby increasing their income. In the latter

1 The First Five Year Plan, p. 232.
stage the blocks of the former stage in which successful results are to be achieved will be selected for intensive development for a period of three years.\(^1\) The development of agriculture will, therefore, be facilitated through the operation of both movements. Accordingly, a minimum programme together with the physical targets for each stage is suggested as follows:

A - Pre-Community Development Stage (Two years)

(a) **Programm.**

i) Preparation of the village agricultural programme.

ii) Introduction of improved seeds.

iii) Conservation of dung and other wastes (compost making) popularisation of the green manures and fertilizers.

iv) Introduction of improved agricultural implements.

v) Introduction of plant protection measures.

vi) Expansion of vegetable and fruit cultivation.

vii) Increase in the area under irrigation through minor irrigation works.

viii) Establishment of a seed multiplication farm and a horticultural and arboricultural nursery for each block.

(b) **Targets**

i) Occular Demonstrations.

(a) 3 demonstrations per village level worker for each important crop for which improved seeds are available.

(b) 3 manurial demonstrations for each village level workers on improved crops in the village.

(c) 1 composite demonstration per village including improved seeds, fertilizers and improved tillage methods but exclusive of the demonstration of sugarcane.

ii) Production of enough improved seeds within a block to cover at least 10 per cent of the cropped area of the block.

iii) Popularisation of the use of fertilizers and green manures in at least 10 per cent of the cropped area.

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1 Summary Record of Fifth Development Commissioner's Conference on Community Projects, 1956, p. 124.

2 Ibid., pp. 124, 125 and 126.
iv) Increasing the production of vegetables and fruits so as to provide with 6 oz. of these per person per day.

B - Community Development Stage (Three years)

(a) Programme.

i) Carrying out of land and water supply survey of the entire block including the following:

(a) Requirements for:
- Soil and water conservation.
- Irrigation and drainage.
- Communication, village sites, play grounds etc.

(b) Classification of agricultural, grazing, forests and waste land.

(c) Collection of require data for consolidation of holdings.

ii) Preparation of master-plan based on land and water survey providing necessary human, animal needs in respect of crops, fruits, vegetables, fodders, cattle of feeds, raw materials, timber and fuel requirements.

iii) Implementation, of this master-plan in at least one village per village level workers' circle.

iv) Organisation of one Co-operative Marketing Union for each block and one Warehouse for each village level worker in his circle.

v) Training of at least two active farm leaders for each village.

vi) Organisation of two farm Youth Clubs per village level workers.

(b) Targets.

i) Organisation of systematic and continuous renewal of improved seeds in 70 per cent of the area and each of the important crops.

ii) Adoption of green manuring as a normal practice every year for 1-3 of the area under irrigation or assured rainfall.

iii) Consumption of 5 lbs. of Nitrogen and 3 lbs. 205 fertilizers per acre for the total cropped area.

iv) Increase in the production of fodders by 25 per cent.
v) Provision of an area under fruits and vegetable per family.

vi) Active participation by each farmer in a Co-operative Society with a minimum share capital of Rs.10/-.

Following these recommendations, it was decided in consultation with the State Governments in May 1952 to launch the Community Development Programme. This programme was inaugurated in 55 project areas all over India, on October 2, 1952, being the auspicious birthday of Mahatma Gandhi. The purpose of the establishment of the first set of projects is explained in the First Five Year Plan: in the following words:

'As increased agricultural production is the most urgent objective, one of the basic criteria in the selection of this first set of project areas has been the existence of irrigation facilities or assured rainfall'¹

For each community project, as at present planned, there will be approximately 300 villages with a total area of about 450 and 500 square miles, a cultivated area of about 1,50,000 areas and a population of about 200,000. The project area is conceived as being divided into 3 Development Blocks, each consisting of about 100 villages and a population of about 60,000 to 70,000. The Development Block, in turn, divided into groups of 5 villages each, each group being the field of operation for a village level worker. Thus the total programme for the First Five Year Plan is to undertake 1,200 National Extension Service blocks. Out of the latter, 700 blocks consisting of about 70,000 villages and a population of 40 million will receive attention under the intensive development programme. The remaining 500 blocks consisting of about 50,000 villages and a population of 35 million will come under the Extension Services.²

1 The First Five Year Plan, p. 225.
2 Ibid., p. 222.
POLICIES REGARDING LAND, FOOD AND PRICES

1. Land Policy.

The prosperity and progress of agriculture primarily depends upon the right ownership of land, sound management, adequate size of holdings and payment of a just rent. The Commission have given basic importance to land and agricultural workers which together constitute the social policy in agricultural sector.

'What may be described as the social policy for bringing about those changes in the pattern of production and distribution and in the structure of the rural economy which will serve to establish increasing equality of status and opportunity and, at the same time, help fulfil the targets of agricultural production which are central to the success of the Five Year Plan.'

Emphasizing this point further, the Commission viewed that:

'From the social aspect, which is not less important than the economic, a policy for land may be considered adequate in the measure in which, now and in the coming years, it reduces disparities in wealth and income, eliminates exploitation, provides security for tenant and worker and, finally promises equality of status and opportunity to different sections of the rural population.'

Therefore, a suitable land policy is to be worked out taking all the factors into consideration as given in the Plan.

'In the main, land policy has to be worked out in terms of local needs and conditions. The texture of relationships concerning land, conditions of economic life, the social composition of rural communities and the pattern of occupational distribution differ widely, so that no generalization can have more than limited value.'

The land policy includes the two problems of land reform that may be viewed in the following ways: (i) from the point of view of agricultural production and (ii) from the point of view of different interests in the land. The first problem is concerned

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1. The First Five Year Plan, p. 184.
2. Ibid., p. 184.
3. Ibid., pp. 184-85.
with the land management legislation and second with land reform legislation. The main interests involved are stated to be those of:

i) Intermediaries;
ii) large owners
iii) middle and small owners;
iv) tenants-at-will and
v) landless workers.

i) Intermediaries.

The abolition of zamindari rights has been described as 'the completion of one important phase of land reform'. As for intermediaries, their rights have either been abolished or are in the process of being abolished. In this regard the two problems are most important. These are related to (i) payment of compensation to zamindaris and jagirdaris and (ii) the establishment of the necessary revenue administration. So far as the first problem is concerned, it is left to the state Governments to pay compensation in the form of non-negotiable bonds carrying a rate of interest and repayable with a period which may be extended to 40 years. These bonds may also be convertible into shares in projects undertaken by the State Governments concerned and also by the Central Government. The work regarding the maintenance of revenue records and the organisation of revenue administration will be the responsibility of the States themselves.

ii) Substantial Owners of Land.

The Planning Commission made a comprehensive study of land distribution in the country and stressed the need of the census of land-holdings and cultivation. It observed:

'In considering the distribution of land as it exists at present for purposes of policy, it is important to know how much land is under the direct management of owners as distinguished from that held on lease by tenants. Before making other proposals on the subject, the first recommendation which we have to make is that during 1953 all States in India should co-operate in

1 Ibid., p. 186.
undertaking a census of land holding and cultivation.'

The problem of unequal distribution of land is most serious and it is required that this discrepancy in the land holding and cultivation should be removed. The sole object of the policy is to reduce the holdings of the larger owners with a view to provide for the landless or for increasing the size of farms of those who now have uneconomic fragments. The Commission suggested the following measures to achieve the above objective:

'We are, therefore, in favour of the principle that there should be an upper limit to the amount of land that an individual may hold.'

The Plan proposes an upper limit to be fixed for (i) future acquisition (ii) resumption for personal cultivation. Some States have already fixed the limit for future acquisition and similarly some States where land is held by tenants, a land-owner may be permitted to resume up to a prescribed limit for personal cultivation. The Commission recommended:

'Although a number of States have not yet imposed limits for future acquisition and for resumption for personal cultivation, we consider that the determination of these limits is an essential step in land reform.'

It is also thought necessary to suggest the following criteria to determine the limit for resumption for personal cultivation or for future acquisition:

1) Land revenue;
2) value of the gross produce of land;
3) value of the net produce (or income) of land;
4) sale value of land; and
5) lease value of land.

Each of these criteria may prove useful in particular circumstances but each of them has also its limitations. It is because;

'Apart from the fact that in several parts of the country no land revenue assessment exists, different districts have been assessed at different times and on the basis of varying assumptions as to prices, yields and crop maturities.'
The problem of land held by substantial owners falls into two distinct parts, namely (1) land under the cultivation of tenants-at-will (2) land under the direct management of owners. The Commission suggested while keeping in view the limit for resumption for personal cultivation, that for areas in excess of this limit, the general policy should enable the tenants to become owners. It also suggested the following measures to be taken simultaneously to achieve this objective:

i) The security of tenure is to be guaranteed to the tenants in order to extend the conferment of occupancy rights; and

ii) the determination of the principles according to which the price of land will be fixed and the payment received from the tenants.

The Commission also suggested the two broad principles in the public interest for the substantial owners where there are no tenants in occupation and the land is directly managed by them. These are as follows:

i) The absolute limit of the amount of land which any individual may hold to be fixed by each state, having regard to its own agrarian history and its present problems. The census of land holding and cultivation will give the date relevant to this discussion.

ii) The standard of efficiency of an individual owner who holds the cultivation and management is to be determined by land.

iii) **Small and Middle Owners.**

The 'small', and 'middle' owners are defined by the Commission that:

'.. owners of land not exceeding a family holding as small owners and those holding land in excess of one family holding but less than the limit for resumption of personal cultivation (which may be three times the family holding) as middle owners.'

And the family holding defined as:

'.. being equivalent, according to the local conditions and under the existing conditions of technique, either to a plough unit or to a work unit for a family of average size working with such assistance as is customary in agricultural operations.'

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1 Ibid., p. 191.
2 Ibid., p. 189.
The general aim of the policy is to encourage and give assistance to these owners in order to organize their activities, as far as possible, on co-operative lines. In this connection the Commission suggested the following two measures:

i) The programme of the consolidation of holdings is to be launched and expanded and pursued, with vigour in all the States.

ii) The second important measure for the benefit of small holders relates to the fixation of a minimum holding below which subdivision is not permitted.

iv) Tenants-at-Will.

The question regarding to the terms on which the tenants-at-will who are engaged in the cultivation of land belonging to small and middle owners may resume land for personal cultivation. A distinction between those who cultivate themselves and those who do not, has been made in the Plan:

'Land could only be resumed for cultivation by an owner himself or by the members of his family.'

The suggestion has been made that the resumption is permitted for tenants-at-will on the grounds that the number of family holdings not exceeding three which can be cultivated by the adult workers belonging to an owner's family with the assistance of agricultural labour to the extent customary among those who cultivate their own lands. A period may also be prescribed during which an owner may resume for personal cultivation. If he fails to do so during this period, the tenants-at-will have the right to buy the land.

Regulation of rent has been uneven. In the Plan, it is stated that the rate of rent exceeding one fourth or one-fifth of the gross produce is to be regarded as requiring special justification.1

1 Ibid., p. 192.

2 Ibid., p. 193.
v) Landless Workers.

The problem of agricultural workers other than tenants has been most acute and the Commission concluded that:

'This is because in any scheme of distribution or resettlement that first claim will be that of tenants already working on lands which may be taken over from the larger owners.'

To provide immediate relief to landless agricultural workers, the Plan proposed action along two lines viz. (1) in terms of institutional change to evolve a co-operative system so as to increase and diversify production and to provide employment to all those who are able and willing to work; and (2) welfare measures for agricultural workers besides statutory protection under the Minimum Wages Act. Among the welfare measure special stress is laid on grant of occupancy rights in house sites, land gifts, organisation of labour co-operatives, colonisation and reclamation of cultivable waste land, special assistance for education, and financial assistance for certain approved purposes.

2. The Food Policy.

A well-defined food policy during the Plan period is regarded as '... an essential condition for the successful implementation of the Plan'. It has several aspects:

'It is, in the first place, a quantitative problem of increasing the food production; a qualitative problem of providing a balanced diet to an ever increasing population who still live near the margin of subsistence; and administrative problem of ensuring a stable food market and effective distribution of food free from transport and other bottlenecks, hoarding and speculation and inter-State restriction; and finally an economic problem of providing support to the Plan by creating exportable surplus and not, as it has hitherto been the case making imports of foodgrains incumbent.'

The Commission, therefore, attempted in the Plan to organise agricultural development in a way that the country may not only be able to make

1. Ibid., 193.
2. Ibid., p. 173.
good the losses caused by draught and floods but also maintain an increasing production trend. It is also expected that outlays on investment will increase the money incomes faster than the available supplies of consumer goods. The people who were unemployed previously will thus get re-employment. The pressure of these incomes which will especially accrue to the poorer section of the community is bound to push the demand for foodgrains and it will cause a rise in their prices. If the prices of foodgrains are allowed to rise, the real income of this class is likely to rise much less than their money incomes; thus depriving them of the benefits of increased employment and income.

a) Quantitative Approach:

In this connection, the Commission have made an attempt to work out the precise 'deficit' in foodgrains that country has to fill in due course. The Commission have, therefore, estimated the production trend as well as the quantity required annually during the Plan period. The period preceding the Plan by six or seven years shows an import on an average of 3 million tons of foodgrains per annum. The deficit of the order of 2.5 lakh tons will continue to arise annually due to a positive rate, i.e., 1.25 per cent per year, of population growth. This means that the deficit of about 2.25 million tons will occur over a period of five years. Therefore, the total deficit in foodgrains is likely to be approximately of the order of 6 or 7 per cent per annum of internal production.\(^1\) The Commission observe that:

\(^1\) The First Five Year Plan, p. 176.
\(^2\) Ibid., p. 176.
b) **Qualitative Approach.**

According to this approach, the Commission considered large sections of the community that live at the subsistence level and suffer from ill-health and consequently lack of the efficiency and strength to work. It is necessary to provide them with balanced diet so that their health may improve and their efficiency may increase.

c) **Administrative Approach.**

The success of a sound food policy depends primarily upon the administrative organisation that includes the establishment of a stable market for foodgrains and efficient transportation of foodgrains and discouragement of hoarding and speculation and inter-State restrictions. The Commission have defined the task of food administration in the following words:

>'The basic policy of keeping down food prices to a reasonable level and of ensuring that the available supplies of foodgrains are mobilized effectively for meeting the needs of the vulnerable sections of the community must remain unchanged.'

It is also said that policy is to be changed when a substantial and enduring improvement in domestic production and marketable surpluses are fully mobilized. A definite policy regarding the inter-State trading is formulated with a view to stimulate free movement of foodgrains within States and larger flows from the surplus States to deficit States. Inter-State movements as well as prices at which the deficit States buy from the surplus States may continue to be controlled by the Central Government. Lastly adequate transport facilities are to be provided and expanded to ensure expeditious movement of foodgrains from one part of the country to another.

1 Ibid., p. 179.
pattern of consumption and they said:

'Considering these circumstances, the substitution of wheat for rice to a moderate extent in the customary diet is highly desirable.'

3. Price Policy.

For a predominantly agricultural economy, during the course of its transformation under the impact of industrialization, the task of maintaining the stability of commodity prices assumes special importance. In other words:

'In a Welfare State, volatile behaviour of price, whether caused by inflationary or speculative forces or by fluctuations in supply of goods, cannot be allowed to upset the whole nexus of investment target, national income and resource mobilization.'

The Planning Commission have not come out with specific price policy for the First Five Year Plan. Instead they have explained different aspects of a possible price policy in the following words:

1) Under Planning, the fullest utilization of available resources and their allocation to secure optimum results is one of the primary objectives:

'The raison d'etre of a planned economy is the fullest mobilization of available resources and their allocation so as to secure optimum results.'

It is proposed to proceed on the path of economic development on the principle of Mixed Economy where both private and public sectors are participating in the development of the economy. The prices play an equally important role in the private as well as in the public sectors but in different ways as mentioned in the Plan:

'For the private sector the prevailing price relationships are the prime factors in determining resources allocations.'

1 Ibid., p. 183.
2 Guha, Sunil, op. cit., p. 182.
3 The First Five Year Plan, p. 36.
d) Economic Approach.

Under this approach, the relationship between availability of food grains and the rate of economic development is determined. The development mainly depends upon the food policy as the Commission explained:

'Food policy has a direct bearing on the investment programme which can be undertaken in an underdeveloped economy. The larger the available supplies of food, the more effectively they are mobilized, the greater is the investment effort the Community can put forth, for food constitutes the wherewithal for sustaining the labour force employed in construction and in the production of capital goods and equipment. The rapid development of an underdeveloped economy is a function mainly of the rate of capital formation, and the latter can be stepped up as more food can be made available to the newly employed.'

During the period of economic development it is unavoidable not to have a high level of demand for food grains because higher investment generates higher income that causes an increase in demand for food grains. If it does not raise the demand for food grains in the country significantly the development is to be considered inadequate. The falling of prices during such times also shows insufficiency of investment effort and low purchasing-power in the community.

The consumption habits are also one of the important aspects of the food policy. The prices of rice are high and they are still rising because there is greater demand for rice not in Indian markets only but in the world market also. Therefore, even a moderate import of 5 lakh tons of rice is estimated to involve an outlay of Rs. 40 crores approximately. The wheat is comparatively cheap because it is produced in greater quantity and the outlook for its production and supply continues to be brighter than rice. So the Commission have suggested to lighten the burden of cost of imports by changing the

1 Ibid., p. 180-81.
2 Ibid., p. 183.
In the public sector, the direction of investment need not always and necessarily be guided by the profit and loss calculus. Nevertheless, the relation between costs and returns even in the public sector has to be judged, at least as an approximation, in terms of market prices. It follows that the maintenance of a structure of prices which brings about an allocation of resources in conformity with the targets defined in the Plan must be the consistent aim of economic policy.\(^1\)

ii) In the initial stage of development, the prices of food articles which are often in short supply affect the prices of other consumer goods considerably. This effect is produced in the following ways as given in the Plan:

'Even a moderate shortfall in the supply of foodgrains is likely, under Indian conditions, to raise their prices more than proportionately, and a rise in food prices leads directly to a rise in the cost of living and in production costs, all round.'\(^2\)

The Planning Commission, therefore, decided to maintain the stability of food prices and observed that:

'Foodgrains occupy a pivotal place in the price structure, and if this latter has to be safeguarded, as it must be, the prices of foodgrains must be held stable at levels within the reach of the poorer sections of the community.'\(^3\)

iii) Prices are dependent upon various factors and a change in any one of them brings about the disturbance in the existing price level. One of them is the import - export policy that has a direct bearing upon relative prices and profitability. The Plan in this regard provided:

'Control and regulation of exports and imports, and in the case of certain select commodities state trading, are necessary not only from the point of view of utilizing to the best advantage the limited foreign exchange resources available but also for securing and allocation of the productive resources of the country in line with the targets defined in the Plan.'\(^4\)

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1 Ibid., p. 36.
2 Ibid., p. 173.
3 Ibid., p. 173.
4 Ibid., p. 42.
The fuller utilization of capacity through improvement in technical and managerial efficiency and through harder and more sustained work appears to be a basic policy designed to increase the output that is one of the means to overcome the inflationary pressures. The Planning Commission pointed out certain limitations of the above approach and suggested the adoption of other devices which may also have a depressing effect on the economy. According to the Commission:

'But since, in the short period, there are limits to the increase in output that can be secured, there is need for making appropriate use of the other devices also.'

It further pointed out that the role of controls in a planned economy may be considered as a major instrument of policy. The physical controls are also necessary to influence the allocation of resources. The Plan, therefore, explained:

'Given the fact that, in the initial stages of development it is the excessive pressure on a few commodities which tend to limit the rate of progress, the extent to which physical controls are needed to supplement financial controls may even be regarded as a measure of the utilization that is being made of surplus resources (like manpower) in the system... In an economy which starts from a low level of output, increases in several lines of production will be found necessary. A simultaneous increase in production in all lines is not possible by merely raising the money reward for work. In the case of certain key commodities, it may be necessary to keep down their prices in order to obviate the need for price rises in several industries which use these commodities. To make this policy effective, controls on production and on movement and physical allocations to consumers become inescapable.'

1 Ibid., p. 42.
2 Ibid., p. 42.
In formulating a price policy it is necessary to keep in mind the following aspects of developmental planning that are generally present in the initial stage of economic development. The Commission's view is that:

'Price policy, being partly a problem of allocation of resources and partly a question of ensuring reasonable equality of sacrifice among the different sections of the people, requires financial as well as physical controls. In the early stage, a development plan necessarily increases money incomes more rapidly than production. If these incomes are allowed to raise current consumption expenditures, they act immediately on prices, especially of articles like food which are in short supply. Such price inflation distorts the relationship between sectional price levels and encourages a diversion of productive resources to purposes which militate against the requirements of development. If continued for a long time, it generates economic instability and social unrest. To the extent that idle manpower and other resources can be used productively without any significant generation of additional money incomes, the inflation potential of a development programme can be minimized at the very start. But, to the extent that money incomes rise, the problem of holding inflationary pressures in check has to be faced.' ¹

¹ Ibid., p. 37.
THE AGRICULTURAL-WAGE WORKERS

The agricultural sector in India suffers from an excess of population. It is because of the population actually inhabiting the land is greater than the number of workers required to produce the same output without any change in methods. The surplus population is more commonly known as disguised unemployment that may be described more clearly as a situation in which the total output of agriculture is not substantially diminished on account of the removal of the units of labour to a certain limit where marginal productivity of these extra units remains zero or approximately zero. It exists as a consequence of insufficiencies in the supply of means of production and it is disguised because of family employment and support in peasant communities. Such under-employment affects not only cultivators but those also who are employees of the cultivators. Statistics regarding employment in agricultural sector, e.g., agriculture, forestry, animal husbandry, fishing and etc., were available only in census reports for the year of enumeration, but there was no machinery to keep the information up-to-date. Cultivating labourers who constitute one of the four classes of agricultural population in accordance with the census of 1951 are broadly defined as employees of the cultivators. The agricultural labourers

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2 Kuznets, S., Economic Growth, Brazil, India and Japan, p.
3 Census of India, 1951, Part II-B, Economic Tables.
and their dependents make about one-fifth of the rural population. In certain States it is as high as 37 per cent. Applying a different criterion, the following view is also held:

'Disguised under employment in agriculture is difficult to measure. It depends upon the level of technique, upon the capital in use, and upon the nature of the crop. In India, it is thought that, with the bullocks and cows in common use, a hundred acres in grain can provide employment for perhaps fifteen persons 'gainfully occupied' in agriculture, whereas the average number 'gainfully occupied' in India per hundred acres is almost thirty. Allowing for the fact that some of India's agriculture is more intensive than grain, Indian economists estimate surplus in the sense that its removal from the land would make no difference to agricultural output. This is equivalent to having some twenty million people permanently unemployed.'

The programme for an efficient utilization of the services of agricultural workers includes increasing their gainful employment, guaranteed minimum wage, securing a basic standard of living and a reduction in the burden of indebtedness. According to the Commission:

'The Five Year Plan has to be viewed as a comprehensive programme to remove the social and economic causes which account for the present condition of the agricultural workers.'

There are four important aspects of the problem of unemployment in Indian agricultural sector:

i) Predominance of seasonal unemployment;

ii) continuous rapid increase in population;

iii) absence of adequate subsidiary occupation which leads to an increase in the volume of under-employment; and

iv) technical backwardness and lack of sufficient means of production.

The following measures are proposed to be adopted to fight against this four-aspect-problem in the Plan:

i) Firstly, a greater employment opportunity to agricultural workers will be provided through

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1 Ibid.,
3 The First Five Year Plan, p. 205.
'Extension of irrigation, intensive cultivation and improvement in agricultural practices will increase rural employment and thus afford greater opportunity to agricultural workers.'

ii) secondly, the agricultural labourers will be provided the facilities to enjoy the right of ownership as it is stated in the Plan:

'Through measures related to land reform many tenants, who are also in some part agricultural labourers, will obtain security and greater protection and will be on the way to becoming owners. Some land, especially that which is not now under the cultivation of tenants, will also be available for agricultural workers.'

iii) thirdly, Co-operative village management will enable them to enjoy equal status and opportunity with the rest rural population as the Plan explained:

'It will be recalled that in making proposals for re-organisation of the rural economy on co-operative lines, one of the major objects in view is to carry out changes which rapidly place the agricultural workers in a position of equality in status and opportunity with other sections of the village community.'

iv) fourthly, the Plan suggested the following to lighten the problem of un-employment in the rural economy states:

'As the economy as a whole develops, an increasing number of workers will be drawn away from the village, so that both those who move out of the village and those who remain in the village are likely to obtain more adequate employment.'

v) fifthly, the areas where population presses heavily on the land and the development of agriculture is most backward will be given first priority for special programmes such as community development projects so that agricultural workers are to be provided employment as well as other facilities.

1 Ibid., p. 205.
2 Ibid., p.205.
3 Ibid., p. 205.
4 Ibid., p. 205.
5 Ibid., p. 205.
vi) sixthly, the Plan suggests to fix minimum rates of wages for agricultural labourers under the Maximum Wage Act.¹

vii) lastly, as they are not the owners of land they cannot get their houses constructed on suitable site and they are to remain dependent upon the consent of either individual: owners of land or of village proprietary body. Therefore, agricultural workers will also be provided with the ownership of the sites on which their houses may be constructed.

Animal Husbandry.

The programme for the improvement and production of cattle is also one of the vital programmes of the agricultural sector. The Plan states:

'... the available feeds cannot adequately sustain the existing bovine population. While there is a deficiency of good milch cows and working bullocks there exists a surplus of useless or inefficient animals; and this surplus, pressing upon the scanty fodder and feed resources, is an obstacle to making good the deficit.'²

The Plan however, has a programme which includes adequate feeding of animals their proper and scientific breeding though the use of an adequate number of superior bulls of known parentage and the elimination of inferior or unapproved bulls and removal of other useless and inefficient animals. The Plan envisages the improvement of cattle in the following ways:

i) the selection of high class animals which are to be found mixed up in India's vast cattle population and their utilization for upgrading the large number of non-descript cattle;

ii) making the provision for these of an adequate quantity of well-balanced feed, protection against diseases and inefficient management.

¹ Ibid., pp. 205-206.
² Ibid., p. 274.
1. Key Village Schemes.

Under this scheme, breeding will be strictly controlled and confined to three or four superior bulls especially marked out and maintained by the farmers for the purpose. The unapproved bulls will be removed or castrated. Other essential features of cattle development such as maintenance of records of pedigrees and milk production, feeding and disease control, will revive full attention at every centre. The technique of artificial insemination will also be utilized in these areas as it will accelerate progress and reduce the requirements of bulls. During the Plan period this scheme will be started at 600 centres throughout India and each centre will consist three or four village having about 500 cows over three years age. The targets for the establishment of key villages, artificial insemination centres and bull rearing farms has been given in the following table.

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Key Villages</th>
<th>No. of artificial insemination centres</th>
<th>No. of Bull rearing farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951-52</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1952-53</td>
<td>196</td>
<td>94</td>
<td>-</td>
</tr>
<tr>
<td>1953-54</td>
<td>206</td>
<td>24</td>
<td>-</td>
</tr>
<tr>
<td>1954-55</td>
<td>94</td>
<td>16</td>
<td>125</td>
</tr>
<tr>
<td>1955-56</td>
<td>104</td>
<td>16</td>
<td>100</td>
</tr>
</tbody>
</table>

1951-52 to 1955-56 600 150 225.

Source: The First Five Year Plan, p. 275.

At the end of 1955-56 when the implementation of the scheme was expected to be completed the total production of bulls was estimated to be of the ordinarily 60,000 per year. Each Community Development
Project will have an artificial insemination centre at a convenient place with four key villages attached thereto. Some of the key villages will be located in sub-urban areas where development of dairy farming has been recommended during the Plan.

2. Gosadan Schemes.

Under this scheme, the problem of unproductive and inefficient cattle was to be tackled. All old, infirm and useless cattle was to be segregated and sent to Gosadans which were to be located in wasteland, in forests and other out-of-way places where cattle grazing facilities exist which have not hitherto been utilized. The Plan in this connection provides for establishing 160 Gosadans at a cost of about Rs. 97 lakhs. A small tannery will be set up at every centre to utilize the remains of the dead animals such as hides, skins, horns, hoofs etc. The following programme was envisaged during the period of the Plan under the Gosadan scheme:

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of new Gosadans</th>
<th>Progressive total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1952-53</td>
<td>34</td>
<td>35</td>
</tr>
<tr>
<td>1953-54</td>
<td>75</td>
<td>110</td>
</tr>
<tr>
<td>1954-55</td>
<td>50</td>
<td>160</td>
</tr>
<tr>
<td>1955-56</td>
<td>-</td>
<td>160</td>
</tr>
</tbody>
</table>

Source: The First Five Year Plan, p. 277.

Each Gosadan will maintain about 2,000 cattle. In 1952-53, therefore, the Gosadans will take away from the improvement areas 70,000 animals, in 1953-54 220,000 and in 1954-55, 320,000. First of all the cattle will be removed from the key village areas.
3. **The Fodder and Feed Problem.**

An important aspect of livestock improvement is the proper feeding and management of the animals. The supply of green fodder which is most necessary to improve breeding and to increase production of milk is not inadequate, but defective also. This work of proper feeding and sound management will be taken up by the Community Projects and Key Village Schemes in the way as suggested by the Planning Commission in the following words:

"In order to improve the supply of leguminous fodders such as lucerne, berseem cow peas, field peas, etc., should be introduced in crop rotations in irrigated areas. This practice give nutritious fodder and will also help to increase fertility. The possibilities of kudzu vine and clovers etc., should be explored." In this way the grazing facilities will be increased and green fodder will be available in sufficient quantity.

4. **Other Schemes.**

The State Government provided a sum of Rs. 25.15 lakhs during the five year period for encouraging poultry farming. Selective breeding and proper development of poultry have also been included as part of the Key Village Scheme. Besides poultry, the attention will be paid to improve the wool of the local sheep by improving the conditions of sheep through selective breeding with the Merino breed in the hills.

A sum of Rs. 15.7 lakhs has been provided in the Plan to initiate the work to control and eradicate different animal diseases mainly rinderpest, haemorrhagie septicaemia, black quarter and anthrax. This work will be taken up by the veterinary dispensaries and 640 new dispensaries will be opened throughout the country during this period.

During the Plan period, more veterinary colleges and the Indian veterinary Research Institute at Izatnagar with sub-station at Muktasar (U.P.) have been recommended to be established and a sum of Rs. 84.43 lakhs, has been provided for veterinary education and training. The

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1 Ibid., p. 277.
total expenditure provided for the programme for livestock and animal husbandry, amounts to Rs. 1432.5 lakhs, the details of which are given below:

<table>
<thead>
<tr>
<th></th>
<th>(In lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Central Government</td>
<td></td>
</tr>
<tr>
<td>Key Village Schemes</td>
<td>Rs. 293.53</td>
</tr>
<tr>
<td>Gosadans</td>
<td>Rs. 97.15</td>
</tr>
<tr>
<td>Rinderpest</td>
<td>Rs. 15.7</td>
</tr>
<tr>
<td>Other Schemes</td>
<td>Rs. 5.64</td>
</tr>
<tr>
<td>(b) State Governments</td>
<td></td>
</tr>
<tr>
<td>Grant total</td>
<td>Rs. 1,432.5</td>
</tr>
</tbody>
</table>

*Source: The First Five Year Plan, p. 279.*
DEVELOPMENT OF FORESTS AND THEIR CONSERVATION

1. Forests.

Forests supply goods for domestic use such as fuel, katha, lac and gum etc., raw materials for use in match, ply and paper industries on the one hand, and gazing facilities for the cattle and maintenance of soil fertility by controlling its erosion on the other. The Planning Commission has, therefore, devised a wide programme for the development and administration of the forests keeping in view their important place in the national economy. The considerations on which the programme is based are as follows:

1) Strengthening the forests administration where large territories have been merged or private forests have been transferred to public ownership as a result of abolishing zamindari and jagirdari;

2) renovation: 'Considerable improvement can, however, be brought about by renovating large areas which, though classified as forests, have been deforested or have not been properly managed.'

3) afforestation where large scale soil erosion has occurred and remains the fear of erosion due to floods and fast flow of water;

4) development of forest communications schemes for utilizing the inaccessible forest areas will be worked out in details by a Committee of experienced forests officers;

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1 Ibid., p. 292.
2 Ibid., p. 286.
3 Ibid., p. 286.
4 Ibid., p. 289.
v) development of village plantations to ease the supply position of fuel, by extending such plantations over suitable waste land in selected areas. Improved supply of this kind of fuel will also discourage the burning of cow-dung and will, thus, promote its proper use as manure;

vi) stepping up supplies of timber by increased use of non-conventional species after proper seasoning and treatment by chemical method and, therefore, increasing the number of seasoning kilns and treatment units.

The area will be extended under forests in the following three directions:

i) afforestation as a measure to prevent soil erosion;

ii) extension of tree lands; and

iii) establishment of village plantation.

Total expenditure of Rs. 1169.5 lakhs during the Plan as allocated under different heads by Central and State Governments:

(a) Central Government Expenditure Rs. 200.0 lakhs

(b) State Governments

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest development</td>
<td>Rs. 621.3 lakhs</td>
</tr>
<tr>
<td>Administration</td>
<td>Rs. 249.4 lakhs</td>
</tr>
<tr>
<td>Forest industries</td>
<td>Rs. 49.5 lakhs</td>
</tr>
<tr>
<td>Education and training</td>
<td>Rs. 39.3 lakhs</td>
</tr>
<tr>
<td>Research</td>
<td>Rs. 10.0 lakhs</td>
</tr>
</tbody>
</table>

Total 1169.5 lakhs

Source: The First Five Year Plan, pp. 88 and 294.

2. Soil Conservation.

Soil Conservation is the process of maintaining the fertility of soil and also to put land under different uses for which it is best suited. In the Plan Soil Conservation is explained as:
in its widest sense includes not only control over erosion but all those measures like erection of soil defects, application of manures and fertilizers, proper crop rotations, irrigation, drainage etc., which aim at maintaining the productivity of the soil at a high level.\(^1\)

A comprehensive programme which is based on four types of measures has been built to undertake the soil conservation during the period of the Plan and this programme will be implemented according to the conditions prevailed in a particular area. The following are the four different measures for controlling erosion and restoring the productivity of eroded lands:

1) **Regulation of Land Use:** This includes for securing such alterations in the existing patterns of land use as are necessary to ensure that the different types of lands are used according to their land use capability, i.e., the use for which, in view of their physical characteristics they are best fitted. Retiring cultivated lands in highly eroded areas from cultivation and bringing them under forests or grazing; restrictions on or closure of grazing in badly eroded forests or grazing lands, and settlement of shifting cultivators to permanent cultivation are some examples of the types of alteration which are needed.

2) **Afforestation and preservation of forests by scientific forest management.**

3) **Improvement of land use practices on farm lands.** This includes such measures as ploughing along the contours and strip-cropping on sloping lands; proper crop rotations; application of adequate manures and fertilizers; care of fallow and other uncultivated land.

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\(^1\) The First Five Year Plan, p. 297.
Engineering Measures - Under this are included construction of
bunds and terraces, check dams, channels for drainage of surplus
water, gully plugging, etc.

Programmes for soil conservation and improvement of land use
during the period of the Plan will be worked out for each State by its
Land Utilization and Soil Conservation Board\(^1\) the formation of which
is also recommended by the Planning Commission. The programmes will be
based on an assessment of the erosion problem in the State. Such
assessment can be made by a rapid survey of the reconnaissance type
which the major erosion affected areas are demarcated and the types and
the degree of erosion in each area broadly indicated.

Soil conservation will be taken up especially in the Community
Development Project Areas where it is necessary such as hill regions
and the River Valley Projects Areas.\(^2\) Soil Conservation will be
expanded by forming the Soil Conservation Association,\(^3\) by passing
Legislation,\(^4\) by undertaking Soil and Land Utilization Surveys\(^5\) by
Central Government and lastly by establishing Research and Demonstration
Institutes\(^6\) in different parts of India.

A sum of Rs. 2 crores has been provided by the Central Government
for soil conservation work during the period of the Plan. This sum is
in addition to the expenditure of Rs. 39 lakhs on soil conservation and
land improvement measures provided in the Plans of the States.

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1 Ibid., p. 303
2 Ibid., pp. 302-303.
3 Ibid., p. 300.
4 Ibid., pp. 300-301.
5 Ibid., p. 301.
6 Ibid., p. 301.