2.1 Agricultural Background

Kerala is essentially an agriculture based economy. In 1971, the percentage of rural population in Kerala was as high as 33.8 per cent as compared to 30.1 per cent for the country as a whole. In 1973-74, the component of the State income accounted for by the agricultural sector was 57.5 per cent as compared with national average of 52.8 per cent.\(^1\) Factor endowment combinations in Kerala promise vast potential for development. The distinguishing features of the economic landscape of Kerala are predominance of a large number of plantation crops, high density of population, a high degree of unemployment and general industrial backwardness.

About 50 per cent of State’s area is available for cultivation. The remaining being covered mainly by forest and uncultivable lands. While about 70 per cent of the cropped area in the country as a whole is under foodgrains, the corresponding figure in Kerala is only 30 per cent and the major food crop of the State is paddy. More than 50 per cent of the cultivable area is devoted to the cultivation of commercial crops, such as coconut, arecanut, rubber, tea, cardamom and pepper, to mention

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a few important ones. Many of these are valuable foreign exchange earners for the country. The consequences of this superior cropping pattern has been the growing foodgrain deficit in the State - while annual production of rice has been estimated at 13.5 lakh tonnes, the requirements are of the order of 22.5 lakh tonnes.\footnote{Government of Kerala, \textit{Fifth Five Year Plan, 1974-79, A Draft Outline}, (Trivandrum: State Planning Board), p. 9.} The current deficit would thus amount to 45 per cent.

Few prominent features of the economy of Kerala in comparison with the country as a whole can be seen in Table 2.1. From the Table it is easily seen that this State trails behind the national average in many fields, such as size of operational holding and net irrigated area. In a way, this brings into sharp focus on the overall economic backwardness of the State. The high density of population (549 per sq.km) and resultant low man-land ratio (0.18 hectare) account for this state of affairs. The per capita income of the State stood at Rs. 785 in 1973-74 as against country's per capita income of Rs. 850. Kerala ranked 8th among Indian States according to per capita income in 1973-74.\footnote{Economic Review of Kerala-1975, \textit{Op.cit.}, p. 46.} It has been estimated that 60 per cent of the rural population in Kerala were condemned to per capita consumption expenditure of less than Rs.180 per annum in 1960-61, the "poverty line" has been drawn here. Even in 1967-68, the percentage of population below the "bread line" in Kerala is well over 50 per cent as against corresponding
Table 2.1: Selected Indicators on the Economy of India and Kerala

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>India (1)</th>
<th>Kerala (2)</th>
<th>Variation (1 - 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td>178</td>
<td>549</td>
<td>(+) 371</td>
</tr>
<tr>
<td>2.</td>
<td>Per sq.km</td>
<td>52.8</td>
<td>57.5</td>
<td>(+) 4.7</td>
</tr>
<tr>
<td>3.</td>
<td>Rs.</td>
<td>850</td>
<td>785</td>
<td>(-) 65</td>
</tr>
<tr>
<td>4.</td>
<td>%</td>
<td>56.3</td>
<td>74.6</td>
<td>(+) 18.3</td>
</tr>
<tr>
<td>5.</td>
<td>%</td>
<td>26.8</td>
<td>21.3</td>
<td>(-) 5.5</td>
</tr>
<tr>
<td>6.</td>
<td>Hec.</td>
<td>2.10</td>
<td>0.73</td>
<td>(-) 1.43</td>
</tr>
<tr>
<td>7.</td>
<td>Hec.</td>
<td>2.00</td>
<td>0.11</td>
<td>(-) 1.89</td>
</tr>
<tr>
<td>8.</td>
<td>Hec.</td>
<td>1.14</td>
<td>1.50</td>
<td>(+) 0.36</td>
</tr>
<tr>
<td>9.</td>
<td>%</td>
<td>70</td>
<td>30</td>
<td>(-) 40</td>
</tr>
<tr>
<td>10.</td>
<td>%</td>
<td>25</td>
<td>50</td>
<td>(+) 25</td>
</tr>
<tr>
<td>11.</td>
<td>Kg/Hec.</td>
<td>14.9</td>
<td>24.4</td>
<td>(+) 9.5</td>
</tr>
<tr>
<td>12.</td>
<td>%</td>
<td>40</td>
<td>50</td>
<td>(+) 10</td>
</tr>
<tr>
<td>13.</td>
<td>Rural Rs.</td>
<td>25</td>
<td>21</td>
<td>(-) 4</td>
</tr>
<tr>
<td></td>
<td>Urban Rs.</td>
<td>35</td>
<td>26</td>
<td>(-) 9</td>
</tr>
</tbody>
</table>

* In Kerala garden land occupies about 70 per cent of the cultivated area, see K.V. Ahamad Bavaapa, "Role of Garden Land Management in Maximising Agricultural Production," Indian Farming, XXX, 11 (February 1976), p. 3.

2. State Planning Board, Government of Kerala (Items 2-7).
national average of 40 per cent.\(^1\) "One of the other features of Kerala economy is its highly enlightened peasantry as is evident from the advanced techniques employed in the State as well as the high level of consumption of organic manure."\(^2\)

2.1.1 Resource Base

Kerala is one of the small states of the country. In Kerala, land is the scarcest factor and this affects the production economics of agriculture. The agrarian economy of the State presents certain interesting facets, like predominance of garden land, low man-land ratio, high cost of cultivation of field crops and abundance of natural resources such as water. The value of land per acre is highest in Kerala at Rs. 6555, but due to the smallest holding size the average value of land per cultivator is low (Rs. 8155).\(^3\) Cultivation in the State has been taken even to the marginal lands as the land resource is scarce. Substantial gains in agricultural production can be secured only by optimising the use of land and water resources. The best way to exploit the land-based resource is to adopt appropriate cropping patterns based on the capability of land. In several locations crop production

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is inhibited due to constraints that are not fully identified. The All India Rural Credit Review Committee has observed "with hardly any area susceptible to famine, it (Kerala) has a variety of crops including the remunerative plantation crops and fruit orchards which made the gross value of agricultural output per acre in the State highest in the country in 1966-67. In regard to per acre consumption of fertilisers also, Kerala ranked first among the States."\(^1\) The area, production and average yield of principal crops in Kerala is given in Appendix C.

The domination of high yielding cash crops presents a misleading notion that the farmers enjoy high income. This is true in a limited sense. Average value of gross produce per cultivator household was lower at Rs. 586 as per the findings of the All India Rural Debt and Investment Survey in 1961-62.\(^2\) All-India Debt and Investment Survey 1976 which gives data relating to 1970-71 conducted by the Reserve Bank of India revealed that percentage of cultivator households to total falling below the asset group of Rs. 2500 in the State was higher at 28.77, against the national average of 18.47 per cent. This is an indication of economic handicaps of a greater proportion of cultivator households in Kerala. The average value of assets per household was Rs.12,755 in 1970-71.

1 Reserve Bank of India, All-India Rural Credit Review Committee, 1969, (Bombay: Manager of Publications, 1969), p. 239.
Among cultivators, the Gini coefficient of concentration was higher (0.64) and the inequality was greater in Kerala.\footnote{Reserve Bank of India, All-India Debt and Investment Survey (1970-71), \textit{Op.cit.}, p. 147.}

Asset groupwise percentage distribution of cultivator households in Kerala and India are presented through a Lormez Curve (Fig. 2.1). It is observed that the curve for Kerala flattens out in the middle and get narrower at higher asset ranges demonstrating thereby lesser concentration of assets at the higher end as compared with the position for the country as a whole.

The agro-climatic and soil conditions of the State are conducive to the growing of many crops. But the per capita land available is as low as 0.18 hectare and per capita land cultivated is 0.11 hectare. The predominance of small scale farms make the operational holdings non-viable. A number of agrarian reforms aimed at improving the socio-economic conditions of the peasantry and agricultural labourers, as well as stepping up agricultural productivity were introduced in the State during the past one decade or so. The Kerala Land Reforms Act, 1963 (as amended in 1969), which came into force from January 1970, envisages abolition of landlordism duly conferring ownership rights of tenancy lands to the cultivating tenants, fixation of ceiling on land at 10 standard acres per family and rights to the hutment dwellers to purchase their dwelling houses and land appurtenant thereto. The Kerala Land
Cumulative % of cultivator household.

Fig. 2.1: Lorenz-curve showing asset-wise distribution of cultivator households in Kerala and in India.

Source of Data: Appendix D
Reforms (Amendment) Act, 1972 provides protection to all Kudikidappukars (hutment dwellers) who continued to occupy their hutments till January 1970. Absentee landlordism is almost curbed and land is directly cultivated by the owner class leading to better land development and modernisation of agriculture. Above all, the agricultural labourers, with assured homesteads and favourable working conditions, have emerged independent of their age old bonded labourhood.¹

Table 2.2 below gives the distribution of operational holdings in the State.

Table 2.2: Distribution of Operational Holdings in Kerala

<table>
<thead>
<tr>
<th>Size group (acres)</th>
<th>No. of holdings</th>
<th>Area %</th>
<th>Average area per holding (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 5 (Small)</td>
<td>91.9</td>
<td>50.7</td>
<td>1.01</td>
</tr>
<tr>
<td>5 - 10 (Medium)</td>
<td>5.6</td>
<td>21.2</td>
<td>6.90</td>
</tr>
<tr>
<td>10 and above (Large)</td>
<td>2.5</td>
<td>28.1</td>
<td>20.19</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>1.82</td>
</tr>
</tbody>
</table>


2.2 Small-Scale Farming

The size of the land holding is an index and in most circumstances a sensitive index, of economic handicaps or

advantages faced by various groups of cultivators in an area. The term small holder is still an elusive concept. This is manifested in the fact that no widely accepted definition has so far been evolved. A host of variables determine the efficacy of farm business and the resultant income. Hence, no single definition can be universal in its application. In the absence of a foolproof methodology for want of adequate on-farm and off-farm details, evolving an appropriate operational definition has certain inherent limitations. The alternative appears to be, left to itself, local judgement within a broad framework of indices like farm size, crop pattern and off-farm sources of income serve as useful criteria for identification of small farmers as per the guidelines for the implementation of small farmers, marginal farmers and agricultural labourers programmes. During the Fifth Five Year Plan, small farmers under SFDA Scheme are to be identified as those who have holdings between 2.5 and 5 acres and marginal farmers having holdings below 2.5 acres. The Dandekar Committee discussing the situation in Maharashtra has put forward an interesting concept. They define a small farmer as follows: "A farmer whose credit eligibility is not more than Rs. 1000 may be called a small farmer. This limit roughly corresponds to gross farm income of Rs. 2500 or net farm income of Rs. 1500." The scope of this definition has


been confined to the members of co-operatives only.

Small farmers and agricultural labourers constitute the vast majority of the farming population in the State. The small and marginal farmers alone account for more than four-fifth in Kerala. The percentage of workers to total population of the State was 29.12 in 1971. In the District also, the rate of participation in work is equally poor. In Palghat and Cannanore districts in 1971, 35.89 and 30.21 per cent respectively of population were workers.\(^1\) Holdings below one hectare constituted in 1966-67 nearly 72 per cent of the total operational holdings and covered a little over 31 per cent of the cultivated area in the State. The proportion of small holders (i.e., less than two hectares) is the highest in Kerala (40.5 per cent). Percentage distribution of some characteristics of agricultural holdings in Kerala is presented in Table 2.3. It is revealed that the number of holdings below 2 hectares constituted as high as 93 per cent in the State in 1970-71. Area under such holdings was about 57 per cent, and more than 58 per cent of area irrigated belonged to these size classes. Stated another way, small holdings were not only numerically predominant but also claimed significant proportion of net area sown as well as area irrigated. A further look into the Table shows a steep decline in the number of holdings, net area sown and area irrigated with an increase in size classes. The lone exception in this regard

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Table 2.3: Percentage Distribution of Number and Area of Holdings, Net Area Sown, Area Irrigated according to Size Classes in Kerala

<table>
<thead>
<tr>
<th>Size class (Hec.)</th>
<th>Number of holdings</th>
<th>Area of holdings</th>
<th>Net area sown</th>
<th>Area irrigated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 0.5</td>
<td>65.61</td>
<td>17.64</td>
<td>17.63</td>
<td>13.97</td>
</tr>
<tr>
<td>0.5 - 1.0</td>
<td>15.97</td>
<td>16.18</td>
<td>16.76</td>
<td>17.84</td>
</tr>
<tr>
<td>1.0 - 2.0</td>
<td>11.62</td>
<td>22.93</td>
<td>23.62</td>
<td>26.37</td>
</tr>
<tr>
<td>2.0 - 3.0</td>
<td>3.78</td>
<td>12.98</td>
<td>13.20</td>
<td>16.10</td>
</tr>
<tr>
<td>3.0 - 4.0</td>
<td>1.66</td>
<td>8.29</td>
<td>8.28</td>
<td>12.01</td>
</tr>
<tr>
<td>4.0 - 5.0</td>
<td>0.53</td>
<td>3.36</td>
<td>3.28</td>
<td>4.09</td>
</tr>
<tr>
<td>5.0 - 10.0</td>
<td>0.64</td>
<td>6.03</td>
<td>5.66</td>
<td>6.82</td>
</tr>
<tr>
<td>10.0 - 20.0</td>
<td>0.13</td>
<td>2.41</td>
<td>2.24</td>
<td>1.86</td>
</tr>
<tr>
<td>20.0 - 30.0</td>
<td>0.02</td>
<td>0.87</td>
<td>0.83</td>
<td>0.41</td>
</tr>
<tr>
<td>30.0 - 40.0</td>
<td>0.01</td>
<td>0.41</td>
<td>0.39</td>
<td>0.13</td>
</tr>
<tr>
<td>40.0 - 50.0</td>
<td>0.01</td>
<td>0.26</td>
<td>0.23</td>
<td>0.10</td>
</tr>
<tr>
<td>50.0 and above</td>
<td>0.02</td>
<td>8.64</td>
<td>7.88</td>
<td>0.30</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Note: There are 5,17,640 holdings with a total area of 13,555 hectares below 0.04 hectares. These have not been included as the details of these holdings have not been collected.


was in the highest size class of 50 acres and above, wherein a negligible proportion of holdings (0.02 per cent) had 8.64 per cent of the total area. This could mainly be due to relative concentration of plantation crops, like tea, coffee and cashew in large holdings.

The Agricultural Census 1970-71 revealed that the
average size of holding is the smallest (0.70 hec.) in Kerala. It was less than one-third of size of holding (2.30 hec.) for the country as a whole.\(^1\) Despite these inherent limitations, it is now conceded that well designed programme offering proper incentives to small farmers, development can be much more rapid than is sometimes believed, and the impact on levels of living following the expansion of cash incomes from subsistence base line can be dramatic.\(^2\) In a sense, small holders in Kerala are better placed to derive economies of scale in the short run due to a variety of high income yielding cash crops that can be grown with advantage even on the marginal lands. But this alone cannot resolve the hegemony of scarce land resources. Moreover, the efforts made so far to combat mounting challenges from natural hazards, such as floods, droughts, sea erosion, brown plant-hopper attack on paddy, root (wilt) disease on coconut, etc., has been highly inadequate to cope with emerging needs.\(^3\) Root (wilt) disease of coconut, spreads over an area of 2.5 lakh hectares in south


\(^3\) Despite the plant protection cover, both preventive and curative, farmers have not got over the sense of despair arising out of the sad experiences of pests incidence during the past many years (1) For more details, see J.P. Kulakashtra, A. Anjaneeyulu and S.Y. Fadmanabhan, "The Disastrous Brown Plant-Hopper Attack in Kerala," Indian Farming, XXIV, 9 (December 1974), pp. 5-7; (2) K. Madha and P. Shanta, "Root Wilt Disease Problems and Perspectives," Indian Farming, XXVII, 9 (December 1976), pp. 27-30.
and central Kerala, causes an estimated annual loss of Rs. 300 million.\(^1\) Due to heavy rain and sloping terrain, soil erosion takes place, the land gradually becomes less fertile and soil deficiency in mineral contents.\(^2\) Thus, opulence and misery co-exist in the agrarian economy of Kerala.

### 2.3 Infrastructure Development

All studies relating to agricultural development in the past have emphasised the need for strengthening the infrastructure in serving the farmers. These include strengthening of co-operatives, increasing the inputs specially minor irrigation, intensifying extension and education activities, developing marketing activity and appropriate price support measures, etc. These have gained special significance in respect of small farmers whose capacity to sustain and progress, without adequate external support is well recognised. R. N. Tewari rightly observes that the problem of small farmers cannot be met solely through co-operativisation. It has to be a two-pronged strategy: (i) "To build up an infrastructure more favourable to this class, i.e., to strengthen their resource base by qualitative improvements, and (ii) to open up economic alternatives beyond their farm operations also."\(^3\)

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2.4 Irrigation

Irrigation is one of the sensitive input components in farm success. It holds the key for the spread of new technology in farming. There is sufficient reason to believe that irrigation has not acted as a sound infrastructure for agricultural development.\(^1\) Percentage of irrigation in Kerala was only 21.3 in 1974 as against 45.6 in neighbouring Tamilnadu and 80.1 per cent in the case of Punjab. For the country as a whole, this stood at 26.8 per cent.\(^2\) In 1971, percentage of net irrigated area to net cultivated area for Kerala was only 13.1; while the all-India pattern was 20.1.\(^3\) The irrigation policy pursued in the State so far has been halfhearted wanting in foresight and wanton political will. Development of irrigation in the State broadly fall under two categories, viz., (i) major and medium irrigation projects, and (ii) minor irrigation scheme.

2.4.1 Major and Medium Projects

Major and medium irrigation projects in the State can be grouped into three phases. These are: (i) completed


projects, (ii) continuing schemes (7) and (iii) new schemes of Fifth Plan (8). At the beginning of the Fourth Five Year Plan, out of 20.22 lakh hectares which formed the net sown area in the State, the area irrigated through all sources stood at 4.18 lakh hectares (20.7 per cent). Of this, major and medium irrigation projects accounted for only 0.90 lakh hectares (net) or 4.8 per cent of the net sown area. The strategy for development of irrigation in the Fifth Plan is aimed at completion of all the existing schemes for reaping the benefits. The area expected to be irrigated at the end of 1978-79 is 2.77 lakh hectares (net) and 5.70 lakh hectares (gross). Interestingly enough, total outlay proposed in the plans falls woefully short of the estimated cost of the projects. For instance, the total outlay for the Fourth Plan continuing schemes comes to Rs. 74.20 crores, while the estimated cost is about Rs. 114.82 crores. The gap is more than 35 per cent. In respect of new schemes, the gap between proposed outlay and estimated cost is as high as 67 per cent. On account of this, execution is unduly delayed, which results in further escalation in the cost of construction and postponement of potential use. It is observed that "on account of conventional importance attached to major irrigation projects and local political pressures generated by it, too many of them have been taken up for execution at the same time and their completion delayed for lack of adequate financial

support. Such delays have resulted in considerable escalation of costs, in resources getting tied up without any results to show, and in introducing a degree of lack of coherence in planning that has had other serious consequences.¹

2.4.2 Minor Irrigation Schemes

Minor irrigation schemes have certain intrinsic merits such as low capital investments, speedier execution, high employment potential, wider spread of benefits and better utilisation of local skills and resources. Because of these advantages, development of minor irrigation will have salutary effect on the economic well-being of small and marginal farmers. Unfortunately, despite ample scope for development of this source of irrigation, progress achieved on this front in the State has been tardy. No systematic ground water survey has been made. Such a survey is an essential precondition to exploit this potential source to the optimum extent. The benefit from minor irrigation schemes to the end of Fourth Plan including pre-plan schemes in the State was of the order of 2.75 lakh hectares (gross). The estimate of benefits during the Fifth Plan is to be 0.75 lakh hectares (gross).²


introduction of SFDAs in four districts (Trivandrum, Quilon, Trichur and Cannanore) of the State have speeded up the process of exploitation of this source of irrigation to a considerable extent in recent years.¹

2.5 Institutional Credit

Credit constitutes the springboard that the poor can use to escape from their appalling conditions. There is no dearth of credit institutions in the State. This is equally true in the case of both co-operatives and commercial banks. But the feeble economic status of majority of the farmers in the State deprive them of the opportunity to have access to credit institutions. Indebtedness of cultivators of the State was of a high order. It stood at Rs. 296² per household as on June 30, 1962. This has risen to Rs. 401³ in 1971-72.

In spite of significant strides in the co-operative sector as a major institutional credit agency, there still remains a substantial credit gap. It is estimated that by 1975 the quantum of non-institutional borrowings attributable to the small cultivators, agricultural labourers and artisans

¹ According to an estimate of SFDA in Cannanore, about 7250 hectares of land has been benefited on account of minor irrigation works assisted by the Agency, See Chapter III, para 3.3.4(a).


may amount to Rs. 30 to Rs. 33 crores.\textsuperscript{1} In a way, co-operatives are placed on a better footing in Kerala on many counts as could be seen from Appendix E. It may be observed therefrom that the general performance of the co-operative credit system in the State is far superior to the country as a whole. Some significant indication of co-operative growth, such as deposit per member, share capital per society, show favourable trends in the State as in the case of co-operatively advanced States of Maharashtra and Punjab.

2.6 Technology

Devising suitable farm technology is one of the major elements in raising farm productivity from farms. The emerging agricultural technology is of two major kinds with regard to the case of adoption. In one kind, technology is capable of successful individual adoption in economic terms, the other kind the economic benefits conferred by the technology on the farmer could greatly be influenced by the extent of co-operative action generated on the part of entire village or watershed community.\textsuperscript{2} Modernisation on small farms will require greater efforts to provide extension, credit services and production techniques that are better adapted to the conditions prevailing in the area. "We need an action plan for every

\textsuperscript{1} Dr. M. V. George, "A New Orientation to the Cooperative Movement," Kerala Cooperative Journal, 19, 2 (June 1976), p. 18.

\textsuperscript{2} M. S. Swaminathan, "ICAR Operational Research Projects Purpose and Approach," Indian Farming, XXV, 5 (August 1975), pp. 3-4.
block which indicate various steps necessary for converting a technological breakthrough into a production advance and production advance into a prosperity advance.¹

The new technology of farming is neutral to farm size provided input and credit requirements are met and can be adopted with ease by all categories of farmers irrespective of the size of holding.² Stated differently, the high yielding varieties would be most productive in regions endowed with natural resources and where well developed infrastructure facilities are available. This takes us to the question of appropriate technology. "Stated in the simplest terms, an appropriate technology is that which makes optimum use of the existing resources of a given country while maintaining acceptable quality of the goods and services produced."³

Now, research results are not available that are 'suitable', 'dependable' and 'profitable' for the farmers especially those having inadequate resource endowments.

The disadvantage inherent in the operation of small farms continues to be a hangover in the transfer of technology.

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The basic approach in alleviating the disadvantages is to create new organisations and to strengthen the organisations existing already so that the small family farm can share the benefits of big volume operations, can be made equally adaptable to modern technology and the use of physical inputs and services, and secure resources needed for the practice of technology.\(^1\)

Clamour against high cost of cultivation especially the hired labour has become a stumbling block even in the case of resourceful farmers in modernising agricultural practices. Agricultural innovations remain partial and experimented on a selective basis. In respect of subsistence farmers, farming as an avocation is seldom contemplated. Risk factors attributable to natural hazards such as failure of rain, excess rain, flooding of saline water from sea loom large in the minds of farmers.

2.7 Integrated Rural Development

Of late, greater emphasis is being laid on a multi-pronged strategy, so as to integrate many rural agencies to attain optimum combination of men and resources for fuller utilisation and better results. This has come to be known as integrated rural development. A sort of cultural revolution appears to be a precondition for such transformation in this country. Admittedly scale of farming is size neutral.

Productivity of farms in Japan bears this out. Technology blended with efficient support mechanism have been pace setters for such accomplishments. The integrated strategy for development encompasses both spatial and functional integration of all relevant programmes related to increased agricultural production. Essentially, this will have to address itself to the specific problems of the vulnerable sections of the rural community. "Agriculture starts moving forward when scientists develop an economically viable technological package and administrators and political leaders provide the necessary package of services and public policies which would enable the farmer to take to the technological package."

This leads us to the organisational aspects of rural development.

2.7.1 Organisational Set-up

Administering a developmental scheme depends on the organisational superstructure imposed upon it. Hence, viable operational structure with adequate authority and resources becomes inevitable. "Agricultural administration comprehends not only agricultural per se whatever it may be but also co-operation, engineering coordination, team-work, planning and organisation, a job not merely of the agricultural technician but of the general administration, the development officer and many others as well." Co-ordination of the participant unit

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is very important in order to accomplish the desired level of success in the implementation of plans. The past performance of integrated Area Development Scheme has proved that inter-departmental co-ordination is not feasible within the framework of fragmented authority and inclination towards politicians to decide upon things.\(^1\) If integrated rural development is to be meaningful, blocks and panchayats should be reinvested with authority in terms of manpower and material resources so as to enthuse them to the task expected of them. Discussions with administrators showed that the bifurcation of departments in Kerala on what were considered flimsy grounds, had perpetuated political passions. This should be corrected as drift could lead to substantial damage to the administrative apparatus. If the past is any guide, it has been found that co-ordination was weak in diagonal relations between different departments falling under a different line of command. "The departmental functionaries look for their rewards beyond the district Collectorate; and the directorates in the State Government indeed function as if they were directly responsible for the performance of the functionaries in the field."\(^2\) To put it in a nutshell, appropriate technology and appropriate management combined with ample people's participation is the key to integrated rural development. This takes us to the issue of micro-level planning.


The import of planning from below is increasingly recognised. It brings in precision in identifying the pros and cons of project formulation, implementation, evaluation and makes possible the determination of specific development strategies which are consistent with the resource potential of the region. In operational terms, this would bring in functional integration of various agencies operating in the area. The financial institutions which serve as pace setters to bring out growth impulses in the rural scene can become viable entities only when local machinery provides them necessary guidelines and determines priorities for investment. "Unless district planning is made possible through appropriate administrative reform there is little that can be done by way of building a credit plan for a district."¹

The National Commission on Agriculture (1976) in its comprehensive study has dealt at length with the importance of whole village development through consolidation of land holdings, land shaping and improvement, improving the irrigation facilities and water use and developing suitable cropping programmes and package of practices for such programmes. A replica of this model known as Operational Research Project (ORP) is in operation in select few villages of the country under the guidance of Indian Council of Agricultural Research (ICAR). The Muttathody village of Kasaragod block (one of

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the blocks studied) has been included for integrated land use planning of plantation crops like coconut, palm, cashewnut, arecanuts, etc., under the leadership of Central Plantation Crops Research Institute, Kasaragod.

An impressionistic study showed that there has been delay in implementation on account of faulty conception of schemes which are viable and operational. Hence progress, so far, has been tardy. Provision of timely credit to the farmers was reported to be one of the major limiting factors. The commercial banks were credited with the ability to take quicker decisions. However, they remained conservative in their loaning policy towards small and marginal farmers. Coordination of various departments was said to be emerging at a slow pace. In this regard, ORP acts as a catalytic agent. In sum, the scheme is yet to make its impact felt in the village community.

2.8 Conclusions

The agricultural economy of Kerala portrays a series of interesting facets, such as high income yielding crop combinations, lowest man-land ratio, abundance of natural resources especially water, higher dose of fertiliser use, successful implementation of agrarian reforms, well informed peasantry, and abject poverty and malnutrition of the people. Another significant snag stems from predominance of small holders along with their precarious economic standing which add further dimension to the problem of poverty in the State.
Of all the constraints, the hegemony of scarce land resource is the most acute one.

Development of infrastructure which are conducive to the requirements of weaker sections is an essential condition for their upliftment. Denial of access to the means available acts as a major restraint in production enhancement. Irrigation facilities, institutional credit, appropriate technology and guidance are the major factors to accelerate the growth potential of small scale farms. Research results that are suitable, dependable and profitable to small farmers is highly inadequate to emerging needs. In the State, for want of consistent policy in the development of irrigation infrastructure, optimum utilisation of available water resources are yet to be exploited fully. Institutional credit agencies are fairly developed in the State. By and large, rural credit co-operatives are viable in character. However, the hold of moneylender-trader in providing credit to subsistent farmers is still strong. Appropriate technology suited to the conditions of small farms remain to be evolved and popularised.

In the ultimate analysis, rural development is a function of many inter-related activities. Hence integrated rural development strategy is being increasingly emphasised. The success of the strategy depends upon a suitable organisational base to deliver the good. Integration of relevant programme activities in the functional model, delegation of authority at lower rungs of administration, inciting people's
participation in development plans are some other issues that remain to be resolved. All these highlights the need for a planning strategy from below. Operational research projects initiated in recent years are pace setters in village development at the micro-level.