OBSTACLES TO AGRICULTURAL DEVELOPMENT—
A CASE STUDY OF KERALA

ABSTRACT

Increasing agricultural production for the overall economic growth of the nations has become one of the primary objectives of the planned development in developing countries. Agricultural production has to be increased through improvements in the agricultural sector, especially in countries where land hunger is great. So the planned strategy should take into consideration the factors that work in favour and against modernization of agriculture. Cultivators would respond sufficiently, if opportunities for profitable investment are made available. Increased profits can be ensured, if the cost of cultivation can be reduced. In this direction three alternatives are possible: 1. an increase in the farm prices through subsidies so as to enable the farmers to obtain a reasonable profit, 2. a reduction of input costs, 3. provision of sound infrastructure to bring down costs. The first can not be recommended as it is not a sound long term economic policy, the second is not directly controllable as it is a function of many exogenous and endogenous forces. Hence the provision of infrastructural facilities would reduce costs and induce
farmers to innovate modern technology.

The present study, in its effort to identify some of the obstacles to agricultural development in Kerala, attempted to analyse the agricultural infrastructure in the state. The whole work is organised in eight chapters. In the introductory chapter, we have presented the problem, the objectives of the study, scope and limitations, and the method followed. Thus we started with the hypothesis that the lapses in the agricultural development strategy of the state have left over a weak agricultural infrastructure which has obstructed the agricultural development in Kerala. Defining agricultural development to mean increase in farm production, we have covered a time period of 15 years from 1956 to 1971.

The second chapter is meant to provide a theoretical background to the analysis. After discussing the role of agriculture in economic development and the factors impeding agricultural development, we have built up a case for agricultural infrastructure in agricultural development. The agricultural infrastructure is defined as the physical capital and the institutions that provide economic services to the farm firm, but external to it. The two aspects of agricultural infrastructure, the 'Sociality' and 'Externality' pinpoint its importance. 'Sociality' requires it to be
socially made available and 'Externality' tells about the benefits of it. Thus provision of agricultural infra-
structure would prove to be an incentive for the cultivators. The external economies it provides would reduce the cost of cultivation, increase the profit, enhance the income and future investment which would lead to higher production and finally development. Contrary to it, its absence will stifle incentive, which would keep the farm sector out of large scale modernization resulting in low rates of growth.

In chapter three, an analysis of the agricultural sector of Kerala is attempted in order to provide background information for the study. The analysis brings to light that though the crop list of Kerala has over thirty crops in it, seven crops are very important. Those crops which contribute more than one percent to the gross value of agricultural crops are coconut, paddy, arecanut, tapioca, pepper, banana and other plantains and cashewnut. These together contribute 76.09% (in 1960-61 prices) to the gross value. Interestingly, the same crops occupy 77.52% of the total area sown. The growth rate of agricultural production from 1952-53 to 1970-71 was only 2.9%. Even in this increased production, more than 70% of the change was due to expansion
of the area. Only arecanut and tapioca were blessed with
the yield effect. This tells the low level of modernization
in the agricultural sector of the state. In the case of
paddy, a crop for which much attention was given, the high
yielding variety seeds covered only 18.3% of the area under
rice in 1970-71. Even the increasing farm prices could not
provide confidence to the farmers to innovate modern techno-
logy because of the risk and high cost of cultivation involved.
The cost of cultivation index has been rising steadily and
the parity index was turning against the farmers. In view of
the bleak possibilities for increasing area under crops, the
alternative for increased production is only modernization
for which farmers should be induced by reduced cultivation costs.
This can be made possible to a great extent if good infrastruc-
tural facilities are provided. It is here the Kerala Agricul-
tural policy has missed. This fact is borne out by the analysis
of four important components of agricultural infrastructure
in Kerala in the subsequent chapters.

In our analysis of land reforms in the state as an
important component of agricultural infrastructure in
chapter four, we have observed that even as late as 1971,
the land reform measures could not bring necessary changes
in the agricultural sector. This is because, in a situation
of complex and enormous tenancy relation, even the basic
requirement of abolition of intermediaries was possible only in 1972 by the passing of Land Reforms (Amendment) Act, 1972. Though ceiling legislations have been passed, the land rendered surplus could not be distributed as yet. The hesitant legislations, inefficiencies in implementation and frequent changes in reform laws all have diluted the measures taken for a change in the agrarian structure.

An analysis of irrigation and other allied services like soil conservation, flood controls and waterlogging is attempted in chapter five. The analysis has disproved the misconception that irrigation is not a problem in the state. The uncertainty of rains in adequate quantities have caused crop failure through frequent floods and droughts. The irrigation, if provided adequately, can more than double the yields of crops like coconut, sugarcane etc., which would bring high income to farmers. Already Kerala ranks first in the net return from investment in irrigation among all the Indian states. But the percentage of area irrigated of non-food crops to all crops irrigated was only 8.6% in 1971-72 which actually had declined from 11.3% in 1956-56. Soil conservation is another problem which had remained without proper attention. Only 7.3% of the total estimated area is conserved till the end of Fourth Five Year Plan.
Thus the analysis unravels the inadequacy of irrigation measure in the state.

Improved agricultural marketing facilities in the state seems to be highly essential as our analysis reveals in chapter six. The costs and losses involved in the present processing, storage transport and marketing can be reduced to a great extent if these facilities are adequately improved thereby helping the farmers to fetch a higher price for their products. Even as late as the end of Fourth Five Year Plan, out of a number of 56 important markets, the number of regulated markets were only 6 and the state ranks at the bottom among all the states in India, in the matter of coverage of area by regulated markets. Again, cooperative marketing, processing and storage, and warehousing facilities are not sufficient to influence the farm sector. In this matter the cash crops are the worst hit. Proper grading facilities are also absent. In view of the fact that the marketing facilities can be improved only in the presence of all weather rural roads, the analysis brings to light that the conditions of rural roads too are pitiable and according to the minimum needs programme the construction of a new net work of 3000 kms. of rural roads are yet to be started in the fifth plan period.
In chapter seven, the agricultural research is analysed. Inspite of the existence of eight research stations, many of the important crops have not received adequate attention in research and for those for which much research has been undertaken, the efforts have not been able to provide a 'suitable', 'profitable' and 'dependable' technology for the farmers. Thus paddy and tapioca are the two crops on which considerable research has been undergone. But researches have made little progress in the case of crops like coconut, cashewnut, pepper etc. Because of the long gestation period involved in the researches on these crops, steps should have been taken for researches much earlier. Among the major reasons for the neglect of research, scarce allocation of resources, belated establishment of research stations, and the relatively low significance to research until a decade ago can be pinpointed. The establishment of an agricultural university too has come as late as 1971 only. Plant protection activities too are to be spread to a large extent and crop/failures have been recorded due to plant diseases.

Finally in chapter eight, we have presented the summary and the findings. The overall analysis bears out the fact that the agricultural infrastructure in Kerala is weak and inadequate. Hence the following policy prescription is
suggested in the context of agricultural development in the state.

1. The above discussed factors should be accepted as agricultural infrastructure for agricultural development in the state,

2. The investment should be selective and priorities should be given to the important crops in a policy of developing individual crops,

3. Agricultural marketing facilities should be modernized by more regulated, markets, cooperative marketing societies for sales and purchases, storage and warehousing, processing and the early completion of the construction of rural roads,

4. Agricultural research on cash crops should be given emphasis to provide a 'suitable', 'profitable' and 'dependable' technology,

5. Irrigation network should be expanded to include the non-food cash crops also under it,

6. Land reforms should be implemented in their entirety removing the remaining impediments and consolidation of fragmented holdings should be undertaken immediately, and

7. Urgent measures on pest control, soil conservation, and flood control should be undertaken which otherwise would hamper agricultural production considerably.
Agricultural backwardness of the state seems, thus, to be due to the insufficient development of the agricultural infrastructure. Both in qualitative and quantitative sense, agricultural development can be considerably attained if bold and imaginative measures are introduced to eliminate the obstacles.