CHAPTER VI

INADEQUACY OF MARKETING INFRASTRUCTURE

VI.1 Introduction

In chapter VI, an analysis of the Marketing Infrastructure is attempted. Section VI.2 deals with the discussion of agricultural marketing as an infrastructure for agricultural development. In section VI.3 an attempt is made to analyse the agricultural marketing in Kerala state. Section VI.4 discusses marketing reform measures including regulated markets, storage and warehousing, agricultural processing and road facilities in Kerala. In section VI.5, the conclusion is given.

VI.2 Marketing Infrastructure for Agricultural Development

Agricultural marketing is yet to be developed fully in many of the countries of the developing world. One of the reasons may be that it has not yet been fully accepted as an essential element in agricultural development in the countries of Asia and Far East.¹

Therefore, it has failed to develop and, in consequence, many agricultural development programmes have not succeeded in reaching the goals set for them. The agricultural marketing process is a complicated one and in underdeveloped countries the farmer usually remains his own sales man. But the inherent disadvantage in such kind of salesmanship is that the producer-seller is unaware of the demands of time. The demand of agricultural products are spread over time, while the supply of them is available during particular periods of time. The producer-seller farmer hence finds it difficult to organize the supply and demand of the agricultural product and to fix a fair price which may not be to the disadvantage of the buyer and seller. The high dependence of agriculture on climatic factors results in variation in the quantity and quality of the product from time to time. Hence Cohen has remarked that the farm output is generally produced neither at the time, nor in the place, nor in the form in which consumers require it.² While one of the objects of production is to satisfy consumers' demands, agricultural

product will lose its utility if such maladjustments have not been rectified and supply and demand brought into relation with one another.

Marketing has, thus to be looked at "a wider perspective than selling and distribution of agricultural production as it involves many other services. Cherington has defined marketing as one "designed to cover the complex group of services involved in the distribution of merchandise from producer to consumer, excluding only those functions which involve alteration in the form of commodity." Brian opines: "strictly speaking, marketing includes the farmers' transactions both in buying and selling, but it is generally confined to the selling side of his business and is used to cover all activities involved from the time the product leaves the producer until it reaches the consumer." Thus though marketing should include the purchases of the farmer for the produce of his goods and the process by which the products reach the final consumer, a generally accepted definition is that "in its widest sense agricultural marketing comprises all

the operations involved in the movement of food and raw materials from the farm to the final consumer. This however, limits the selling and other processes involved in it whereas Prof. Brien has given a broader definition by including the purchasing aspect of the farmer also. Though the purchasing of the inputs depends upon the marketing policy and the efficiency of other firms, it has a vital role to play in the cost of production of the farm firm. Hence a cursory glance of it in the evaluation of the marketing structure would go a long way in bringing efficiency in the production of the farm firm.

But the latter part of it is given wider attention in that the marketing facilities and procedures contribute to the objectives of agricultural development directly through providing fuller use of a given level of production and indirectly by fostering increased production. An efficient system of marketing works to help agricultural development in different ways.

First of all, we have observed that the producer-seller is incapable of bringing supply and demand together and also adjust his product according to the time, place and form in which the consumers demand. A market connects supply and demand and it is also the function of the marketing system to give form utility, time utility, and place utility to the goods which the farmers produce. The key services which marketing provides is expressed through price in regard to form, place and time utilities. With respect to form the critical service is identification. The heterogeneous farm produce has to be graded and classified. The classification must be so defined that it becomes a different product and the quality differences are reflected on prices. In regard to place, accurate price differentials are to be fixed taking into consideration the location of the product and the provision of efficient transport facilities. An efficient price reporting and communication service and a good transport system are requisites for this.

As regards time, the price differences depend on the uncertainties of the future. Forecast of future demand and supply and good storage facilities would enable the prediction of future prices.

Secondly, an efficient marketing would alleviate the inefficiencies in selling, processing, storing and transporting agricultural commodities which cause actual loss of product. Thus saving these commodities increases the supply available for consumption just as much as does an increase in production. Estimates of losses in storage from rodents, insects, and other sources vary from a few percent as much as one third? Climatic factors and methods of storing and handling would influence the level of losses and an improved storage system would no doubt be helpful in saving the commodities.

Thirdly, efficient and improved marketing would increase production by motivating the producers through the higher prices to their products. This happens because if the marketing costs are reduced,

7. Mellor, J.W. op.cit. p. 328
the prevailing prices would be directly passed on to the producers. Again another indirect effect of it is that the lower prices in the absence of high marketing costs would expand the market for the product because of high price elasticities and hence push up the prevailing prices. Yet another effect is when the price of farm products are low due to low marketing costs, the cost of production of the farmer too would be low because of the low factor prices. A reduction of the real prices of what the farmers buy is just as valuable an incentive as an increase in the real price of what they sell. Thus in any case an efficient market system would prove to the advantage of the producer.

However, one interesting feature with regard to marketing margin, which the marketing system is trying to minimize, is that in underdeveloped countries it tends to be relatively low. It implies that simply reducing the already existing low margin (the percentage difference between the farm price and the consumer price) can have any substantial effect on agricultural prices. This is true

8. Mellor, J.W. op.cit. p. 331
irrespective of whether the margin is the product of efficient marketing, inefficient marketing, collusion or competition.\(^9\) The low margin indicates the fewer services rendered and different factor combination and costs rather than the efficient or competitive market structure as one may be tempted to believe.

The importance of marketing increases together with a change in the stage of development. Although marketing has a little role to play in the early stages of development, when the living standards of the people increases, the nature of consumption goods changes. As for the producer, agriculture becomes a commercialized business rather than a way of life and hence the bulk of what he produces would be set apart for the market. Here comes the problem of marketing which is far different from the meagre transaction he is making. Further, while the income of consumers change, their consumption pattern changes with emphasis on such food items as fruits and vegetables, milk etc., which are easily perishable and which require careful

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storing for meeting the demand over time. Form utility is income elastic and hence when the income of consumers rise, they would demand the same farm produced good in more sophisticatedly processed form. Here marketing services have to play a significant role. Together with the increased marketing services, the marketing cost will go up, but it can be checked by increased efficiency.

In order to build up an efficient marketing system, a fuller knowledge of the different marketing practices must be available regionwise and commodity-wise. A proper communication system must be built up to disseminate the prevailing prices to the producers and the consumers. Adequate transportation facilities must be available for the farmer to bring the produce from the inner most part of the village to the nearest marketing centre. Adequate storage and processing facilities must be available. The farmers must also be able to get inputs like seeds, fertilizers and credit through the organised marketing institutions without extra time and monetary loss. If the above factors are available, an efficient marketing system can function with minimum expenditure and maximum services.
But contrary to it, in the underdeveloped countries, the state of affairs existing with regard to agricultural marketing is not very satisfactory. In 1931, in India the Central Banking Enquiry Committee reported that the general and heavy indebtedness, the low standard of literacy of the producers, unsatisfactory communications, lack of preparation of product for the market, absence of market informations, the extreme individualism of the producer and his reluctance to combine market and sale and the existence of too many middlemen who claim on excessive share of the profits from sales etc. left with the poor marketing structure. But the changes in conditions that have taken place since then are not satisfactory considering the time lag and also requirements. Even now the market structure is such that the farmers sell produce to small merchants and intinerant traders at the village level; the small merchants take them to the local wholesale market wherefrom it moves to regional market and then after processing it is

send to consumer markets. In this series of transactions, the farmer is exploited and inter-market arbitraging also takes place against the advantage of the farmer.

As a palliative comes the co-operative marketing in the developing countries, which seeks to improve efficiency and provide social justice. But the effectiveness of the co-operative markets lies in saving the farmers from exploitation in case a big margin exists between farm price and consumer price. In the absence of large margins, the co-operatives will have to work with increased efficiency to compete the traders and thus reduce the costs. But the corruption and nepotism so often found in the co-operatives, the lesser flexibility due to governmental interventions, the inefficient managerial talents of the farmers to run co-operatives would jeopardise the existence of them as they would only be adding to marketing costs rather than reducing them and increasing profits.

However, it is not to argue a case against co-operative marketing. In underdeveloped countries, co-operative marketing is by far the most suitable method for increasing marketing efficiency coupled
with social justice involved in it. But if the market structure is to work efficiently, piecemeal efforts will not suffice. The co-operative marketing societies should combine in it storage, processing, transport and credit facilities and also marketing of inputs. But more depends upon how it works rather than where it works and who runs it. Frequent supervision from the government devoid of procedural delays and coupled with generous help to provide timely inputs and other facilities like finance to carry out its functions would lead to an efficient working.

Regulated markets are yet another suggestion for improving market structure. The malpractices in the unregulated market system, the use of defective weights and measures, high market charges etc. can be avoided and also regulated markets can provide such facilities as storage too.

Thus if implemented properly with definite efficiency to carry out its function, co-operative marketing together with the net work of regulated markets in a country can bring positive effect on the farmers to increase their production and thereby
contribute to the agricultural development of the region. No doubt the organizational factor has to take the necessary steps to bring market reform and introduce necessary markets and also help positively to see that the co-operative marketing societies are performing efficiently. Such market structure would form an infrastructure for agricultural development. Emphasising the need for agricultural marketing, a report on the Conference on Productivity and Innovation in Agriculture in the underdeveloped countries states: "Market reform ought to be an integral part of any policy for agricultural development....Marketing is as critical to better performance in agriculture as farming itself and should be regarded and developed as such." ¹¹

VI.3 Marketing Infrastructure in Kerala

The gradual transformation, though slow, of subsistence farming to commercial farming makes it

necessary to give greater emphasis on agricultural marketing in the state. The marketable surplus, the generating phase of agricultural development, calls for new marketing policies and administrative structures. The production of paddy, the principal crop of the state has registered an appreciable increase. The prospects of realising remunerative prices for the marketable surplus constitute the main motivation in commercial farming which necessarily call for increased investment outlay. Effective marketing arrangements are thus essential conditions for the continued adoption of modern farming techniques and only by sound, systematic and scientific marketing of the produce the cultivator can earn what he really deserves, especially in a state where the prices of many of its produce depend on their demand in the far off foreign markets.  

The first comprehensive survey of the various problems of agriculture in India was made by the Royal Commission on Agriculture in India. The Report of the Commission has rightly become the starting

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point for all further discussion on the subject. Among the terms of reference, the existing methods of transport and marketing of agricultural produce and stock was an important one. Consequent upon the Royal Commission Report on Agriculture in 1928, marketing sections were set up in Malabar in 1934 and Travancore-Cochin in 1935. In 1957, a year after the formation of Kerala state, these sections were reorganised and strengthened.

But the marketing system established through a long process of growth gave rise to an unbalanced situation in which interest of traders, middlemen and the ubiquitous money lenders were more in evidence than those of the producer-sellers. The farmers, therefore, continued to be at the mercy of the traders who never ceased to exploit them and put them under a number of disabilities which ultimately affected production both in quantity and quality.

13. Nanawati & Anjaria. The Indian Rural Problem. p.216
The efficient and traditional marketing system which persists over time, despite reformatory efforts, though inadequate, has a close relationship with the peculiarity of cultivation in the state. That the majority of cultivators fall under the category of small farmers with tiny holdings below an acre and that the cropping pattern is predominated by cash crops generally grown in the garden lands have contributed to the existing market system. "The various produce raised in those tiny holdings flow to the small village shandies and then to the important Panchayat and Municipal markets and bazzars from where they are taken to the terminal centres. There they are stored, graded and sometimes partially processed. This long journey of the agricultural produce from the farm to the consumption centres through different primary, secondary and terminal centres is a matter of immense importance to the producer, trader, consumer and to all those who are connected with the development of the farming and economy of the state."  

15. Hali, R. op.cit. p. viii
Price Differentials:

An analysis of the price differentials would be helpful to understand the share of producer in the final price paid by the consumer. The table VI.A (p. 172) gives the price spread of selected commodities in Kerala.

The analysis of the price spread between the farm and wholesale and retail markets for various commodities show that the farmer receives in average around 90% of the price paid by the consumer. Commodity-wise, the marketing margin is high in the case of Tapioca with only around 75% going to producer and followed by Cashewnut, Ginger and Coconut. Arecaanut had bagged 100% in 1961, while it came down to 83% in 1970. Relatively by 1970 the marketing margin had increased in the case of all the commodities. However, while considering the fact that the percentage difference between the farm price and the consumer price is low in low-income countries and as Prof. Mellor states that the low margin is not explanatory of the efficient or competitive market, the above data too cannot be used to interpret that the

16. Considering the inefficiencies and improper ways of price quotations and price informations, the data is less reliable. From observation of the marketing conditions in the state, one can learn that
Table VI.A

Producer-Consumer price spreads,
Selected Commodities, Kerala, 1961, 1966 & 1970

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F.P.</td>
<td>W.P.</td>
<td>R.P.</td>
</tr>
<tr>
<td>Coconut</td>
<td>21.4</td>
<td>22.3</td>
<td>23.4</td>
</tr>
<tr>
<td>(Rs. per 100)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tapioca</td>
<td>8.9</td>
<td>8.8</td>
<td>12.0</td>
</tr>
<tr>
<td>(Rs. per qtl.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Areca nut</td>
<td>3.2</td>
<td>2.9</td>
<td>3.2</td>
</tr>
<tr>
<td>(Rs. per 100)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cashew nut</td>
<td>68.0</td>
<td>77.4</td>
<td>**</td>
</tr>
<tr>
<td>(Rs. per qtl.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pepper</td>
<td>358.4</td>
<td>371.2</td>
<td>**</td>
</tr>
<tr>
<td>(Rs. per qtl.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ginger</td>
<td>126.9</td>
<td>134.4</td>
<td>**</td>
</tr>
<tr>
<td>(Rs. per qtl.)</td>
<td></td>
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</tr>
</tbody>
</table>

Source: Statistics for planning series no. 5, prices, B.E.S., Kerala, 1972. (Commodities selected on the basis of availability of comparable data).

F.P. = Farm Price, W.P. = Wholesale Price, R.P. = Retail Price, % = Percentage of R.P. to F.P.

** In this case comparable retail prices are not available. Hence % is the percentage of W.P. to F.P.
marketing system is efficient. As has been stated earlier (quoted from the Market Survey Study) even in the tertiary market, the commodities are only partially processed. The state of affairs in the Kerala marketing structure shows that hardly any service is offered so as to increase the marketing charges and hence whatever margin exist is the share of middlemen and transport. The existence of the Areca nut Marketing Federation of Kerala and Mysore has improved the condition of Areca nut marketing and it reflects on the marketing margin too. But, the condition is not so smooth in all the regions of the state.

Even at present out-dated marketing is existing in large parts of the state. Its worst effect is on the cash crops. The commodities are brought from the primary producing units by the

(Continued from page 171)

there exist much difference even in the Farm price and Wholesale price, not to speak of retail price. In this context the National Council of Applied Economic Research writes: "The small cultivators generally experience great difficulty in disposing of their product at reasonable prices. In case of some commodities like Ginger, Pepper and Arecanut, the difference between the price received by producers and that paid by the consumers is as high as 100%. In addition, none of the commodities except lemongrass is properly graded and this leads to serious consequences from the point of view of export markets." NCAER. 'Techno-Economic Survey of Kerala' New Delhi, 1962. p. 40.
producers themselves to the shandies where it is sold to the consumer direct or to the wholesaler or to the middlemen. Some times, on way to the market itself, middlemen settle the price at a lower level than the near by market price and purchase them and sell to the wholesaler in the market. Some times, the wholesalers or even middlemen purchase the crops at the place where it is grown before harvest itself at a lower price. These methods of marketing are still prevalent at a great level through out the state except in very few cases. Improper standardisation exists with the use of irregular weights and measures especially in the interior and village areas where from most of the cash crops come.

A survey on the agricultural marketing of the state throws some light on the marketing of agricultural produce in Kerala. The survey was concerned only with marketing at the producers' end. A striking fact revealed by the survey is that co-operatives play only an insignificant part in the marketing of agricultural

produce in the state. The major portion of the produce is sold in the villages of production without being carried to a market place. The proportion of the produce brought to the market place varies for individual crops. The table VI.B gives the percentage quantities of each of the important crops sold in the markets, in the producing villages, and through co-operative societies.

Table VI.B

Percentage Sale of Crops in Markets, Villages, and through Co-operative Societies (1958-59)

<table>
<thead>
<tr>
<th>Crops</th>
<th>All Percentage of quantity sold</th>
<th>In In Through Co-operative</th>
<th>markets villages societies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Paddy</td>
<td>100 1.6 98.4 0.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coconut</td>
<td>100 17.5 81.1 1.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tapioca</td>
<td>100 50.4 49.6 0.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Areca nut</td>
<td>100 42.2 56.1 1.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pepper</td>
<td>100 60.1 34.7 5.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ginger</td>
<td>100 9.5 98.5 0.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cashew nut</td>
<td>100 34.8 65.2 0.0</td>
<td></td>
</tr>
</tbody>
</table>

Thus in 1958-59, 98.4% of the Paddy and 90.5% of the Ginger sold were at the villages itself with a minor percentage being sold at the market. In both cases, co-operatives had nothing to do. Similarly, Cashewnut and Tapioca too did not reach the co-operatives. However, a considerable portion of it was sold in the market also. Coconut, Arecanut and Pepper are the three crops produce sold through co-operatives whose percentages are 1.4, 1.7 and 5.2 respectively. But at the same time the prices realized through co-operative societies are the highest and the sales fetched the lowest price in the producing villages. Marketing charges form about 1.3% of the value of the crops marketed including transportation charges and other marketing charges in a ratio 3:1.18

An analysis of marketable surplus and the marketed surplus shows that whatever has been available as marketable surplus19 was marketed.


19. The marketable surplus has been arrived at by deducting other essential items of disbursements like rent paid, house consumption, seed etc. from total production. The marketed surplus of some crops is greater than the marketable surplus because sales have been affected from previous year's stock. Thus marketed surplus is found to be less in some cases as a portion of the current year's marketable surplus has been added to the stock. ibid. p.25.
The table VI.C gives the marketable surplus and the quantity actually marketed in the case of cash crop during 1958-59 as percentages to the total production during the year.

Table VI.C

<table>
<thead>
<tr>
<th>Crops</th>
<th>Marketable surplus</th>
<th>Marketed surplus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paddy</td>
<td>21</td>
<td>23</td>
</tr>
<tr>
<td>Coconut</td>
<td>84</td>
<td>80</td>
</tr>
<tr>
<td>Arecanut</td>
<td>88</td>
<td>88</td>
</tr>
<tr>
<td>Pepper</td>
<td>90</td>
<td>89</td>
</tr>
<tr>
<td>Ginger</td>
<td>95</td>
<td>94</td>
</tr>
<tr>
<td>Cashewnut</td>
<td>96</td>
<td>96</td>
</tr>
</tbody>
</table>


The table reveals that except in the case of paddy and tapioca, the food crops whose considerable part is consumed locally, all other crops contribute 90% or more to the total marketable surplus. In the absence of any accurate statistics for the rest of
the years to calculate the marketable surplus
these figures give us guidelines to think that
90% of the production of the cash crops are marketed.
The advantages and incentives connected with market-
ing are closely related with the production of the
cash crops and hence the fortunes of the farmers of
these products also.

VI.4 Market Reform Measures in the
State

In the first plan period of 1951-56, 25
agricultural marketing societies were opened in
the state. This seems to be the only concrete step
that was taken during the First Plan period in the
field of agricultural marketing. But the Second
Five Year Plan has taken note of the All India
Rural Credit Survey Committee recommendation. The
Committee recommended that the basis of organization
of marketing societies should be either the important
mandis (wholesale markets) or the taluka centres.

During the first year of the Second Five Year Plan
it was targetted to organise an Apex Marketing Society

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21. Report of the Committee of Direction, All India
Rural Credit Survey, Vol.II - The General Report,
for the state and also five primary marketing societies for one each in pepper, cashewnut, coconut, ginger and fruit and vegetables. Accordingly the five marketing societies have been formed. The table VI.D gives us the achievement of establishing primary marketing societies.

Table VI.D

Physical Achievement of Marketing Societies During Plan Periods

<table>
<thead>
<tr>
<th>Plans</th>
<th>No. of Primary Marketing Societies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Plan</td>
<td>25</td>
</tr>
<tr>
<td>IIInd Plan</td>
<td>71</td>
</tr>
<tr>
<td>IIIrd Plan</td>
<td>80</td>
</tr>
<tr>
<td>IV Plan</td>
<td>90</td>
</tr>
</tbody>
</table>

Source: IVth Plan—Draft outline, p. 113 and Vth Plan—Draft outline, p. 635, Govt. of Kevala.

It was during the third plan that earnest efforts have been made to improve the working of the marketing societies and to link credit with marketing. 20 marketing societies were newly organised and 57 societies were given share capital contribution and additional share capital contribution to increase
their resources. Certain special schemes were drawn up for marketing of cash crops like coconut, arecanut, cardamom, pepper etc. both by primary marketing societies and the federation. The third plan had targeted Rs. 550 lakhs worth of agricultural produce to be marketed through co-operatives out of which the realization level reached to Rs. 454 lakhs in 1964-65 which formed 82.6% of the target. In the fourth plan by increasing the number of societies to 90, business worth Rs. 18 crores have been handled by fulfilling the set target. In order to increase efficiency, the bad and dormant societies have been liquidated. A price fluctuation fund has been provided to safeguard against losses arising from outright purchases. Facilities to ensure quality by way of grading has been provided as also grants have been given to purchase trucks.

Regulated Markets:

The practices followed in the markets have an important bearing on securing shares of the consumer rupee for the farmer. Prevalence of unfair practices

like short weights, unauthorised deduction, high rates of commission etc. take a substantial share and add to marketing costs of the farmer. Establishment of regulated markets is one of the ways of mitigating the hardship of the farmer. In Kerala it is estimated that there are about 2000 markets comprising of daily, bi-weekly and weekly markets as also periodical fairs. Out of these, 56 important markets are spread in the different parts of the state. But, unfortunately, the number of regulated markets are as low as 6, (much shorter than the IVth plan expectation of 10), thereby depriving the farmers of the fair practices and the advantages of it. In a recent regional analysis of agricultural development, it has been reported that Kerala ranks the lowest in agricultural marketing facilities in India judging from the number of regulated markets. 23

The fifth Five Year Plan of the state aims at establishing one regulated market each in a

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23. A co-relation study by different agricultural infrastructure variables has revealed that agricultural marketing evidenced by the presence of regulated markets has significant effect on capital formation. Acharya, S.S. and Agarwal, N.L. Regional analysis of agricultural development, Seminar paper, Seminar on Agricultural Development of Indian states, University of Udaipur. p.273. Appendix IV, table no.1, p. xxiv
district where there are no regulated markets at present. It is estimated that this programme would require an investment of Rs. 13 lakhs.

Storage and Warehousing:

Scientific storage and warehousing facilities are essential for the agricultural producers and consumers. By undertaking buffer stock operation, it would be possible to bring about conditions of price stability. It also helps the farmer by increasing his holding power and obviating the need for distress sale. The State Warehousing Corporation commenced its public warehousing activities in the late fifties and since then its work has been increasing tremendously. It has a capacity of 30,000 tonnes spread over 26 marketing centres in the state. The substantial increase in the number of deposits has been met by maximising the utilization of the constructed capacity and increasing occupancy of all warehouses. The Food Corporation of India too has provided storage facilities in the state. In 1968-69 the construction of

godowns with storage capacity of 5000 tonnes was completed. The increasing utilization of warehouses in Kerala can be evaluated on the basis of the activities of warehouses. The number of deposits were only 361 in 1960-61 which shot up to 8,922 in 1972-73. The bank advance too has risen from 4,44,000 in 1960-61 to 1,28,28,000 in 1972-73. But all these have not helped the rural areas substantially as the provision with regard to rural godowns and mandi level godowns is not satisfactory. The second plan has provided for 36 rural godowns and 21 mandi level godowns. It was only in the fourth plan later any substantial increase has occurred raising it by another 36 mandi level godowns and 680 rural godowns. Considering the large spread of 2000 markets alone, godown facilities have a wider gap to be bridged. The financial target and achievement in warehousing and storage during plan periods are given in table VI.E(p.184).

25. F.O.I. Annual Reports - 1965 to 1971
26. Appendix IV table no. 2, p. xxv
### Financial Target and Achievement of Warehousing and storage during plan periods.

<table>
<thead>
<tr>
<th>Plans</th>
<th>Target</th>
<th>Achievement</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Plan</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td>IIInd Plan</td>
<td>16.70</td>
<td>2.00</td>
<td>12.5</td>
</tr>
<tr>
<td>IIIrd Plan</td>
<td>44.23</td>
<td>20.81</td>
<td>47.0</td>
</tr>
<tr>
<td>IVth Plan</td>
<td>23.00</td>
<td>15.59</td>
<td>67.0</td>
</tr>
</tbody>
</table>

Sources: Government of Kerala, Fourth Five Year Plan & Fifth Five Year Plan—Draft outlines.

As the table tells, the second plan has achieved only 12.5% of its aim, whereas the achievements increased to 47% in third plan and 67% in fourth plan. But, even the existing facilities are inadequate. In the wake of this, the fifth plan has taken note of it when it says "There is need for enhancing the capacity of the state warehousing corporation to take care of the warehousing needs of increased agricultural production. They also require special facilities for handling commodities"
like rubber."

Agricultural Processing:

Among the post harvest technology-storage processing and marketing-, processing has vital role to play. It is rather an integral part of marketing. Notwithstanding the fact that the processing technology is fast changing in other parts of the world, rate of change of technology is insignificantly slow in Kerala. The traditional methods of processing lead to loss of production. With small scale traditional methods of rice milling there may be a loss of some six to ten percent or more produce than with modern methods. But in Kerala, even in rice, threshing, winnowing, drying etc. are for the most part still carried on in the traditional manner. Even in the Intensive Agricultural Development Programme areas, processing has not made much headway. During the second plan

27. Govt. of Kerala, Fifth Five Year Plan-Draft outline p. 181.


a beginning was made in the direction and one society was assisted. In the third plan two co-operative sugar factories were assisted by way of share capital contribution. In addition, thirty-four co-operative processing units of various types such as oil mills, rice mills, fruit processing units, tea factories, tapioca starch factory etc. were assisted by government. Besides this, the National Co-operative Development Corporation helped in the setting up of modern rice mills. Under the fourth plan, seven rice mills processing societies were established, two sugar factories with ₹. 394 lakh worth business handled and forty seven other processing societies too were organised. But the rated capacity of all the processing units in the co-operative sector is too small to influence the market. In view of the technology for agricultural processing is fast changing and acquiring greater sophistication, the efforts should keep pace to develop processing in the state also.

Road Facilities:

Transport is one of the strategic infrastructure of an economy. As a sector in the economy, it has its own contribution to the National Product, but further it expedites and enhances the output of other sectors
and also an efficient transport system provides more external economies to other sectors. The sociality of transport can not be over emphasised. If time, effort and resources are not adequately allocated for the up keep of the existing transport also, it would be draining the capital investment already made, whose opportunity cost is high. Apart from it, new investment itself is required for the extension of transport infrastructure so that it is able to meet the requirements. However, in the earliest stages of growth, the increase in transport requirements may be at a higher rate than the rise in economic activity, since industrialisation increases the volume of heavy material movement and specialization enhances the radius of the market.

The transport development will go a long way in increasing the efficiency of agriculture as commercialisation of agriculture pre-supposes more regulated market towns served by a net work of surfaced roads. To quote Sinha Committee Report, "Farm production depends heavily on the ease with which a variety of inputs can reach the site and the resulting produce move out to centres of consumption. It
has also been noticed that switch over to modern methods of cultivation depends very largely on the proximity of an area to an all-weather road." 30

If proper services by various governmental agencies and also private agencies are to be reached to the inner most part of the villages, good surfaced and metalled roads are highly essential. But the less developed countries are characterised by the lack of good road system, let alone the village roads.

In India too, the state and district roads are in bad shape. "They are often water-logged in monsoon. Narrow and bumpy, they often severely limit the road carrying capacity or the permissible speed limit of road hauliers. The condition of village access roads is so poor that motorised traffic is almost impossible." 31

The importance of village roads in agricultural development need hardly be emphasized. Roads in some parts of Punjab, Haryana, U.P. and Tamilnadu have transformed rural society by providing new jobs,


economic or social opportunities and by stimulating exports. Where Intensive Agricultural Development Programmes are launched, development of roads are as imperative as such inputs as seeds and fertilizers. Rather its existence would reduce the cost of production by facilitating easy movements inputs and outputs and thereby reducing the transport costs. But at present villagers in many parts of the country have either to go on foot to weekly or by weekly hats, or at best use bullock-carts for want of modern transport facilities.

Kerala, of course, has a good and developed system of road transport. The total road length of the state is 18,432 km which comes to 47.4 per hundred sq.km. Apart from this and the 553 km of broadgauge railway lines and 339 km of metergauge lines, the state is endowed with a water way of 555 km stretching from Hosdurg to Trivandrum which constitutes the main route for inland navigation. But, its position with regard to village roads is not sound. The position is no better even in areas where the Intensive Agricultural

32. The Eastern Economist, op.cit. p. 293.
Development Programme is underway. Thus in Palghat, one of the IADP districts, the total road length has been reported to be only twenty kilometres per hundred square kilometers.\textsuperscript{34} The project report of the development of infrastructure committee has raised it to be one of the inhibiting factors of agricultural development in the districts.

An analysis of the facts would bring to light the inadequate attention paid and improper measures taken to ameliorate the condition. Until 1959, the scheme for village roads has been attended to by the local bodies. In 1959, it was transferred to the public works departments. The first plan of Kerala had envisaged the construction of 1600 km of new village roads.\textsuperscript{35} But much progress could not be made during the plan periods. The physical target fixed during the second plan was the construction of 1500 km of village roads out of which 235 km were completed which came to 15.6\% of the target. The financial achievement too came to 16.4\% of the said

\textsuperscript{34} Project Report: Development of Infrastructure Committee, Kerala. pp. 10-11

\textsuperscript{35} Government of Kerala, Fifth Five Year Plan-Draft outline. p.377
target in the second plan. (table VI.F).

Table VI.F

Physical and Financial Targets and Achievements of Rural Roads in the Second Plan, 1956-61

<table>
<thead>
<tr>
<th>Item</th>
<th>Physical(Kms)</th>
<th>% of Target Achieved</th>
<th>Financial(R. in Lakh)</th>
<th>% of Target Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Target Achieved</td>
<td>3 to 5</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Construction</td>
<td>1500</td>
<td>235</td>
<td>15.6%</td>
<td>70.14</td>
</tr>
<tr>
<td>and improvement of vill.</td>
<td>1,500</td>
<td>235</td>
<td>15.6%</td>
<td>70.14</td>
</tr>
</tbody>
</table>


The reasons for the failure in the achievement of target have been explained away by the planners by stating: "The main bottlenecks in the implementation of the scheme were delay in obtaining surrenders of land, getting contribution from the public and inadequate response from the Panchayat."

The third plan, the annual plan and the fourth plan did not include any additional provision for the construction or improvements of roads. Instead they all have been giving priority to the spill over works relating to previous five years plan rather than starting new works. As a result the state has been lingering on the target set two decades back even without the successful and effective completion of it. Taking stock of the situation the Fifth Five Year Plan has thus rightly stated: "We will still have to go a long way to hit the target set by the Sinha Committee and the Chief Engineer's Twenty Years'Plan (1961 to 1981) which were based on the objective of every village in a developed and agricultural area being brought within a short distance of a metalled road. Further half the total length of rural roads taken over by the Public Works Department from the Panchayat during the last five years will remain in its unsatisfactory conditions".

According to the minimum needs programme of the Government of India, all villages having a population of thousand five hundred and above should have at least one metalled road within the radius of 4 km.

37. Govt. of Kerala, Fifth Five Year Plan-Draft outline. p.37
Although Kerala has one metalled road per village at present, the condition is not fully satisfied owing to the high pressure of population. In Kerala, each village on an average has 8,000 persons and hence it is estimated that 3,000 km of new roads will have to be constructed, in order to reach the required standard. The table VI.G would explain this position.

**Table VI.G**

**Minimum Needs Programme for Rural Roads**

<table>
<thead>
<tr>
<th></th>
<th>As on 31.3.1972</th>
<th>31.3.1979*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total No. of villages in the state.</td>
<td>1635</td>
<td>1635</td>
</tr>
<tr>
<td>2. No. of villages with a population of 1500 and above.</td>
<td>1635</td>
<td>1635</td>
</tr>
<tr>
<td>3. Length of all weather roads to be constructed to connect all the villages at(2) above kms.</td>
<td>00</td>
<td>3000</td>
</tr>
<tr>
<td>4. New construction</td>
<td>00</td>
<td>3000</td>
</tr>
<tr>
<td>5. Estimated cost of construction.</td>
<td>Rs. 1,800 lakhs</td>
<td></td>
</tr>
</tbody>
</table>


* Proposed
The village and rural roads have a great role to play in the agricultural development of an economy like Kerala because much of the agricultural produce comes from the rural areas and in the extension and commercialisation of agriculture, roads are basic requisites. The cash crops produce, which are bulky, are coming from the interior villages which at present owing to lack of proper road facilities are carried as head loads or in bullock-carts. The inland navigation can not act as a substitute for the rural roads especially in the mid and high land areas of the state. The inadequate roads and the emerging transportation has left the rural areas without much agricultural services and hence the valuable cash crops are not properly cared for. It again makes the inputs costlier because of the transportation cost thereby increasing the cost of cultivation. In the market places the farmers from such areas, where the lack of transportation has made their cost of cultivation dearer, too have to sell the product at the ruling price sometimes to their disadvantage. This would be a drain in the farmer's income leading to lower investment in cultivation and the consequent low production.
Though during the first four plan periods, the attention given to rural roads was scant, the fifth plan has accepted and recognized the role of rural roads in the development of the economy and hence out of the 45 crores of rupees set apart for road development, 18 crores i.e. 40% has been allocated to rural roads for the minimum needs programme. 38

VI.5 Conclusions

The above discussion leads us to believe that the post harvest technology in the state—storage, processing, transport and marketing—has not taken much head way as to influence the farm sector and to impress the farmers. It is true that the marketing problem too has its own peculiarities in the state. Because majority of the farmers being small, the marketable surplus in food grains is very small except in limited areas like, Palghat and Kuttanad. But as we have seen, the cash crops most of which are grown for market like coconut, arecanut, pepper, ginger etc. are mainly marketed. However, because of

38. Government of Kerala, Fifth Five Year Plan-Draft outline. p. 383
its less perishability, the farmers are not much vulnerable to distress sale. But still, the farmers being poor and small can not hold it back until a favourable price is obtained. Again they are susceptible to the unfair practices of the unregulated market. There is also greater uncertainty in the marketing condition of the commodities of the state, because they are subjected to decision made outside the state and even outside the country and the interest reflected in the decision may not necessarily converge with that of the farmers of the state.

Thus, inadequacy of the co-operative marketing societies, the regulated markets, processing societies, storage and warehousing facilities lack of proper coverage of grading on all the crops and the little attention paid to the development of rural roads have adverse effect on the agricultural development of the state.