CHAPTER 6

FINDINGS, RECOMMENDATIONS AND CONCLUSION

6.1 : Findings from Secondary Data

In spite of the fact that Assam is predominantly an agriculture dependant state where 52 percent of the main workforce is engaged in agriculture, agricultural marketing has remained very poor. This is more acute in the case of the Barak Valley region of the state consisting of three districts of Cachar, Karimganj and Hailakandi. Lack of connectivity appears to be the primary reason for the poor agricultural marketing network. Besides poor road and rail connectivity with the rest of the country in general and rest of the state in particular, lack of storage facility compels the farmers to go for distress sale immediately after harvesting. Absence of refrigerated container traffic has made it impossible to move perishable agro-products to wholesale markets located in Guwahati and Kolkata. In the absence of agro-processing units at the local level, farmers have to sell the green produce at the local markets at a very low price. Some of the important findings are:

1. Agriculture is the mainstay of the people in Assam in general and Barak Valley in particular. Assam lags far behind the national average in terms of net area sown, total cropped area, availability of cultivable area, area under irrigation, yield rate of major crops, and crop diversification. Barak Valley, in terms of these parameters, lags even behind the state average of Assam. While at the national level 46.28 per cent of total geographical area of the country comes under net area sown, the same for Assam and Barak Valley stand at 35.80 and 34.98 per cent respectively. Similarly, while at the national level, 54.40 per cent of geographical area is available for cultivation, the same for Assam and Barak Valley stand at 38.41 and 37.57 per cent respectively. As far as irrigational coverage is concerned, while at the national level 42.80 percent of net sown area is under irrigation, the same for Assam and Barak Valley stand at 5.76 and 5.08 per cent respectively. In case of yield rate of foodgrains, while the national average is 1851 kg/hec during 2010-11, the same for Assam and Barak Valley stands

at 1763 kg/hec and 1101 kg/hec respectively. In case of crop diversification, while the national average ratio of area under food crops to non-food crops during 2010-11 amounts to 2.78, the same for Assam and Barak Valley stands at 4.59 and 6.15 respectively.

2. Not much of cultivable waste land is available either in Assam or in Barak Valley. While cultivable waste land constitutes 4.14 per cent of total geographical area of the country, the same for Assam is 0.98 and for Barak Valley 0.64. This indicates that the scope of agricultural expansion by way of extensive cultivation is extremely limited. The future prospect of agriculture-led strategy of growth in Assam as well as in Barak Valley has to be implemented through intensive cultivation.

3. Assam lags far behind the national average in agricultural marketing infrastructure like number of wholesale markets, warehousing, cold storage, grading laboratories, Agmark nodes, and transport and communication infrastructure. Out of 1659 godowns under State Warehousing Corporations in the country in 2013, only 44 godowns are located in Assam which is a little below than national average for each state 48.79. Similarly, out of 5381 cold storage in the country, only 30 are there in Assam which is much lower than the national average of 158.26 for each state. The situation is much worse in case of grading laboratories. While there are 956 grading laboratories in the country, there is not a single such centre has been established in Assam. In case of Agmark nodes, out of 3011 such nodes in the country, there are only 23 nodes in Assam which is far lower than 88.57, the national average for each state.

4. The condition of agricultural marketing infrastructure in Barak Valley is extremely poor as the Valley lags far behind the state average in terms of agricultural marketing infrastructure like number of wholesale markets, warehousing, cold storage, Agmark nodes, and transport and communication infrastructure. Out of 405 wholesale markets in Assam, the three districts of Barak Valley have only 15 markets while the average share of district comes to 15. Similarly, out of 44 warehouses in Assam, there are only 2 in Barak Valley while the average share of a district comes to 1.63. Although, there are 4 cold storages under Assam State Agricultural Marketing Board (ASAMB), not a single cold storage has been located in Barak Valley. As far as road network is concerned, Barak Valley is lagging far behind the state average. While the

length of PWD road per 100 sq km in Assam is 69.56 km, the same for Barak Valley is 39.37 km.

6.2: Findings from Primary Data

1. There exists a weak but positive correlation between agricultural marketing facilities and marketable surplus. A plausible explanation for this weak positive correlation lays in the fact that majority of the sample households have reported consumption as the main motive behind their cultivation of rice. After meeting the household consumption needs, whatever is left they offer it for sale. Thus, the ground level experience suggests that rice cultivation is more of a consumption-need-based-decision rather than market-guided-decision.

2. There exists a weak but positive correlation between agricultural marketing facilities and marketed surplus. A plausible explanation for this weak positive correlation lays in the fact that majority of the sample households belong to the categories of small and marginal farmers who primarily produce to ensure food security of their families rather than to sale off into the market. Instead, after meeting the household consumption needs, whatever is left they offer it for sale.

3. There is a weak but positive correlation between agricultural marketing facilities and accumulation of capital in agriculture. It might be noted that as the majority of the sample households belong to class of marginal and small holder who basically cultivate rice primarily for family consumption, not much of investment and capital accumulation in terms of ownership of agricultural implements have been noted. However, a section of the households having larger holding size have found to have made higher investment leading to greater accumulation of capital. This has made the distribution of capital accumulation skewed leading to larger variation in the scatter plot.

4. Although agricultural marketing facilities captured by the agricultural marketing facilities index (AMFI) has positive impact on agricultural growth (taking production of winter rice as a proxy to growth) in Barak Valley, however, it is not the major determinant of agricultural growth. Instead of AMFI, holding size has been found to

be the major determinant of agricultural growth in Barak Valley, as the coefficient of AMFI (0.033) is lesser than the coefficient of holding size (0.982), where cultivation is done primarily for self-consumption rather than marketing.

6.3: Broad Conclusion

Marketing plays a vital role in economic development of a country. Agricultural marketing facility is a *sine qua non* for the development and growth of agriculture. In spite of tremendous importance, much emphasis has been put on in identifying the factors responsible for growth in agricultural production rather than on agricultural marketing. Perhaps the concern for food security of a nation has led to disproportionate stress on production rather than marketing. Moreover, the food security concern at the household level does not allow agricultural production to be completely responsive to market forces. As a result, agricultural production is partly determined by the food security need at the household level and partly by the income need of the households for meeting non-agricultural goods and services.

Agricultural marketing indirectly determines agricultural growth. The primary motivation of the ordinary farmers for the cultivation is to ensure the food security for their family first and then whatever is produced in excess, they sale them in the market. The motive for the production of excess quantity of crops gets strengthened if the farmers could sale them at remunerative price. If the farmers find it difficult to market their produce, or do not get remunerative prices, this acts as disincentive and hence the farmers do not show much interest for the production of excess quantity of a crop.

Thus, agricultural growth, measured in terms of agricultural production, is determined up to a certain critical level by the assessment of food security of the farm households and then agricultural marketing facilities and price of the agricultural crop play an important role in enhancing the horizon of agricultural production. As a result, any development strategy based on agricultural sector must factor into development of physical and institutional framework for agricultural marketing.

However, unlike factors like fertilizers, elements that protects the plants from diseases and decay like pesticides and insecticides, genetically engineered high yielding variety seeds, irrigational facilities, rural infrastructural facilities, availability and use of power, etc. which directly impact on the level of agricultural production and productivity, agricultural marketing plays an important role towards the enhancement of agricultural growth indirectly via agricultural income. It might be noted that higher productivity may not automatically lead to higher level of income unless produces are sold in the market. It is a common knowledge that farmers have to face market glut for certain crops and are forced either to sale their produces at a price lower than its cost or are forced to destroy the crop on the field itself as the market price does not warrant them to be harvested from the field. In such cases, failure of marketing discourages the farmer to increase their level of production in the next season.

It might be pointed out that agricultural production decisions are primarily guided by the food security concerns of the farm households in areas where forces of market have remained very weak. Agricultural-led economic development in such areas warrants strengthening of the relationship between agricultural growth and agricultural marketing. One plausible way of achieving this goal is by of creation of the physical and institutional marketing facilities. Agricultural marketing has been the biggest challenge to the agriculturists in India in general and Assam in particular. As the reach of the institutional buyers like FCI is limited only to agriculturally developed states where practice of agriculture has assumed an industrial dimension, farmers in agriculturally backward states face a tremendous challenge in marketing their crops. While the Ministry of Agriculture, both at the Centre and the State, is much concerned about the level of production, farmers are concerned with the marketing of their produces. Whatever institutional framework has been created at the central and state level for the promotion of agricultural marketing is proved to be utterly inadequate. Even the minimum support price (MSP) declared by the Central Government for the procurement of major crops has largely remained on paper for the majority of the farmers in the country as the declaration is not backed by institutional mechanism which can ensure the procurement by public institutional buyers had the farmers are unable to sale their produce to private operators at that price.

The problem of agricultural marketing particularly for the marginal, small and semi-medium farmers in agriculturally backward states like Assam has been further magnified with the adoption of food security programme which is serviced by large scale procurement of foodgrains from the surplus produced areas and distributing the same at a subsidized rate to the underprivileged section of population. In spite of tremendous benefit of the programme, it has created problem for the cultivators who could not sale their produce to the government agencies at the minimum support price. As the rural people get the subsidized rice from government recognized outlets, rural markets are no longer acting as the effective vent for the surplus produced as the local produce is not price competitive. As a result, agriculture for the marginal, small and medium holders is increasingly losing its attractiveness and people are desperately leaving agriculture even for a ghetto life in urban areas which might snowball into bigger social and political problem in future.

In order to make agriculture as a viable career option for the rural people, integration between production and marketing has to be done at various levels. The sooner this aspect is realized and corrective measures are initiated, the better it would be for the deprived millions who provide food security to the nation at the cost of their own livelihood insecurity.

6.4 Suggestions and Policy Recommendations

1. In view of the fact that not much cultivable waste land is available, the strategy of agricultural development in Assam in general and Barak Valley in particular should rest on intensive method of cultivation though efforts and crop planning to increase cropping intensity.

2. In view of the fact that the agricultural marketing infrastructure is extremely poor in Assam in general and Barak Valley in particular, special attention is called for to address this issue without which it would be extremely difficult to improve the condition of agriculture in the state of Assam as well as in Barak Valley. Adequate facilities like warehousing, cold storage, grading laboratories need to be created at the district level so that farmers can easily access them.

3. Agriculture being the main stay of the people of Barak Valley, efforts need to be made in order to establish at least one Principal Regulated Market in each of the three districts.

4. As the farmers in Assam in general and Barak Valley in particular are not much aware of the requirements of the market, an institution needs to be devised in order to bring the farmers and both the private and public institutional buyers together. This will sensitize the farmers about the needs of the market. They will have better knowledge about the different types of gradation of agricultural crops having implications for their marketing. In the process, the farmers will be better integrated with the markets and feel the pulse of the market requirements before they decide to produce.

5. In order to transform the agriculture from tradition to modernity, from consumption-induced to income-induced, it is extremely important to make agriculture commercially viable through greater integration with the forces of market. For these to happen, grading centers and grading laboratories need to be opened up at least in each district headquarters which is currently not available in Assam.

6. The reach of “Agricultural Marketing Information Network" (AGMARKNET) through the establishment of Agmark Nodes in Assam is extremely narrow compared to other Indian states. As the AGMARKNET takes the marketing information to the doorstep of the stakeholders, the reach of the system needs to be expanded at least at the regulated market level so that the producers can easily access to market information.

7. In order to inject growth dynamism in the agricultural sector, state and other institutional players need to encourage the farmers to improve on crop diversity. It has already been mentioned that 88 percent of the cultivable area in Barak Valley is under rice cultivation and most of the farmers practice monocropping by way of cultivating winter rice only. As it has long been established in the literature that crop diversification improves the income of the farm households, augmenting the same in Barak Valley is likely to enhance the level of income of the farmers as well.

8. Barak Valley is endowed with congenial climate for the cultivation of horticultural crops like pineapple, banana, papaya and other citrus fruits. Pineapple of Lakshipur in

Cachar District is famous in the state. However, due to the lack of any fruit processing industry in the Valley, fruit farmers do not produce it at large scale which could lead to a glut in the fresh fruits markets. It is important to establish resource-industry linkages at the local level in order to strengthen the dynamics of development in the economy of Barak valley.

9. Agriculture in Barak Valley is characterized by the overwhelming presence of the small and marginal farmers. Neither they produce at a large scale, nor do they have the capacity to maintain any warehouses. As a result, they all sell their crops immediately after harvesting leading to oversupply during the peak harvesting season which pushes the price downward and hence makes actual income lesser than the expected income. State intervention in the creation of warehouses is urgently needed so that small and marginal farmers can keep their produce in them at a reasonable price. Once this facility is created at the block level, ordinary farmers will have access to them and this will arrest price crash during the harvesting season and remove, to a large extent, the uncertainty in agricultural income resulting from demand-supply mismatch.

10. Like warehouse, public investment is also needed for the construction of cold storages where farmers can store their perishable crops like vegetables and plan their supply in the market according to their suitable price.

11. While the industrial units operating in NER enjoy transport subsidy to the tune of 90 percent for movement of inputs or outputs from the plant location to Siliguri, no such subsidy is offered for the agricultural inputs coming into the region from outside or for the movement of agro-products from the region to outside markets. Some incentives to the farming community might help in making agriculture remunerative and encourage agricultural marketing.

12. As the Food Corporation of India (FCI) is the nodal agency in the country for the procurement of foodgrains from the farmers at centrally declared minimum support prices, it can play a significant role in enhancing agriculture-based development by way of providing a strong linkage between the growers and buyers. As the lion's share of FCI procurement come from the agriculturally developed regions like Punjab and Haryana, where agriculture is assumed an industrial status, small and marginal farmers in other states particularly in depressed areas could hardly sale their produce

to FCI. They usually sale to middlemen who pay much lesser than minimum support price. Thus, it is extremely important that FCI works out its regional thrusts in procurement programme and help in facilitating agro-marketing in far-flung remote areas like Barak Valley.

13. Provisioning of public irrigation system by the public authorities can go a long way in enhancing agricultural production and growth in Barak Valley. It has been noted that much of the cultivable land is under monocropping due to the lack of irrigation facilities. Farmers having cultivable plots near the natural water bodies like ponds, streams, bills, rivulets and rivers usually practice double cropping as they can access the waters in natural reservoirs mostly through lift irrigation system. However, cultivable plots far from the natural sources of water are used only to raise winter rice. As rice is basically produced for food security of the household, commercial crops like horticulture is generally practice in order to strengthen supplementary income of the farm households which is not possible without the provisioning of public irrigation system.

15. Institutional framework for supporting the marketing of agri-products in Assam in general and Barak Valley in particuar is very weak. Assam State Agricultural Marketing Board (ASAMB), created for the promotion of agricultural marketing in Assam, could not match the challenges in this regards. The rice procurement scheme of ASAMB had not yet been extended to the districts of Barak Valley. It is extremely important to strengthen the ASAMB in terms of its capital base, functional domains and administrative reach. ASAMB should have equally empowered district level branches so that farmers of each district can be benefited from the operations of ASAMB.

16. Marketing of agri-products can be promoted through the formation of Agricultural Marketing Cooperatives which will tie up with the large scale agri-marketing national and international firms. The Department of Agriculture and the Department of Cooperation might take initiative along with the Department of Industries and Trade and Commerce at the state level in order to establish the necessary linkages along the supply chain and make the agricultural marketing cooperatives as a tool for the promotion of agri-marketing in Assam in general and Barak Valley in particular.

17. In order to promote agri-marketing in Assam in general and Barak Valley in particular, cross-border markets in Bangladesh could play an important role as there is substantial demand in Bangladesh particularly of horticultural products of North Eastern Region. There are two Land Customs Stations in Barak Valley, viz., Sutarkandi and Karimganj Steamerghat through which cross-border trade between Barak Valley and Sylhet district of Bangladesh flows. If the agro-production in Barak Valley could be ordered according to the demand structure of Bangladesh, this would lead to the establishment of a strong complementarity across the border causing trade to flow with accelerated space leading to convergence of agri-marketing and agricultural growth.

6.5 Limitations of the Study and Future Scope for Research

The present study has the following limitations:

First, it has focused on the physical aspects of the agricultural marketing by way of considering the availability and conditions of physical agricultural marketing infrastructure like number of regulated markets, principal market yards, sub-market yards, warehouse facility, cold storage facility, road per 100 sq km, procurement centers, grading facilities, agmark nodes, and transport and communication infrastructure. The study has not considered the role of price in augmenting agricultural marketing. This aspect can be taken up for further study in order to gauge the impact of variations in price on agricultural production.

Second, the present study has not elaborately dealt with the institutional framework put in place in Assam in order to promote marketing of agricultural produce by the farmers in the state. This dimension requires further study. The study has not evaluated the performance of the organizational structure put in place in Assam to promote agricultural marketing. The role of ASAMB, FCI and the Department of Agriculture, Government of Assam might be taken up for detail study in future.

Lastly the present study has only covered production and marketing issues relating to the cultivation of winter rice. Future studies might be taken up by way of enlarging the crop coverage and bringing both autumn and bodo rice under the ambit of

investigation. The study has been designed to cover only one agricultural season for one year. Future studies might adopt a time series approach to better understand the relationship between agricultural marketing and agricultural growth.