

Marketing Problems of Selected Vegetable Crops: A Case Study of Matia Community Development Block of Goalpara District, Assam

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Abstract

Vegetables contribute a major share in horticultural crops and presently are gaining most commercial tone in the recent years. India is the largest producer of vegetables. The vegetables sector provides opportunities for cash earning as well as nutritional security to the people. The emerging policy of Liberalization, Privatization and Globalization (LPG) has brought immense potentiality not only to meet the domestic requirements but also opportunity of export earnings. Considering the importance of vegetables production both the central and the state governments have been initiating a plethora of schemes under National Horticulture Mission (NHM).

The most part of Goalpara district of Assam is climatically suitable for producing a variety of vegetable crops. Among the eight Community Development (CD) Blocks, Matia CD Block is one of the major producers of various seasonal vegetable crops. However, due to the absence of efficient marketing facilities and processing units farmers do not receive remunerative prices. As most of the vegetable crops are perishable, their harvest and marketing are very crucial for boosting the development of these crops.

Keeping in view the importance of vegetables production and its marketing problems, the present paper seeks to make an insight into the vegetables production as a source of sustainable farm income. On the basis of secondary and primary sources of information, the present paper intends assess the marketing efficiency of a few selected vegetable products in Matia CD Block.

Keywords: Vegetable crops, nutritional security, marketing efficiency, remunerative prices, perishables.

Introduction

The technological breakthrough and varied socio-economic structure in India has necessitated the appropriate adjustments, like other fields in marketing activities also. This is relatively more significant when fluctuations of price of farm products are taken into consideration. Price fluctuations of agricultural commodities are generally so unpredictable and violent that they often adversely impact on income levels of the farmers. The reason is that the elements of cost and returns do not easily adjust themselves to the changing price levels. The prices received by the farmers are comparatively much lower than the prices paid by them for the acquisitions.

Efficient marketing system is crucial to support farmers and earn reasonable returns, marketing of agricultural commodities faces various obstacles due to their bulky nature, seasonality and high degree of perishability, major parts of production are sold by the farmers to middlemen or commission agents, who dominate the trade and earn huge profits. Marketing cost for some farm produce are so high which accounted for more than 50 per cent of the costs of production, thus reducing farmers' income. Whenever there is glut, the farmer is compelled to dispose of his products at a throw away price. Such circumstances results in a switch over to cultivation of non-perishable crop.

Hence, for developing the marketing efficiency, there is a need to monitor or control the activities of intermediaries through regulation of trade and establishment of more horticultural products cooperative marketing societies at village, block and district levels and by creating marketing boards on the lines of the commodity boards. In this direction, the National Agriculture Cooperative Marketing Federation (NAFED), several State Tribal Cooperative Corporations headed by TRIFED and primary cooperative marketing societies have been taken up procurement and marketing of several agricultural and horticultural crops.

An efficient marketing system is an effective agent of change and crucial ways for raising the income levels of the farmers and the levels of satisfaction of the consumers. In the planning of agricultural production, the role of marketing of agricultural produce is very important. It is a well established fact that efforts for increasing agricultural production cannot be sustained for a long time unless and until the farmers are ensured the remunerative price for their products and also a legitimate share in the price paid by the consumers. One of the main reasons advocated for lower share of producers in the consumers' rupee is the larger magnitude of the price-spread of agricultural commodities. The price-spread consists of marketing costs involved in the assembly, processing, storage, transportation and handling of products from one place to the other and also margins of various intermediaries who are engaged in moving the produce from the producers to the ultimate consumers. The price-spread which is the indicator of the efficiency of the marketing system not only varies from region to region and from time to time but also depends on the nature of agricultural commodities and seasonal arrivals of the products in the markets. In order to examine these aspects several studies were also undertaken but these were confined to agricultural crops mostly. Keeping in view the aforesaid facts, the present study has been undertaken to examine the relative efficiency of marketing system for the vegetable crops.

Marketing of vegetables is not similar from marketing of other farm products because of their high perishability, concentration of business in a few hands and a large number of

producers. India is the second largest producer after China in the globe with a production of 40 million tonnes from 4 million hectares of land area. This high level of production can supply only 120 gms of vegetables per capita, per day as against the recommended dietary allowances of 200 gms vegetables per capita per day. Thus, for an estimated population of one billion in the country, there is need to increase the production of vegetables. This level of production can be achieved by making this enterprise a profitable entity as it is mostly taken by the small sized farmers. The cultivation of vegetables is most suitable in a country like ours with preponderance of small land holding, varied climatic conditions and surplus family labour. However, the level of profitability of the vegetables crops depends upon how marketing of vegetables is undertaken by the farmers in addition to technology in growing them. Time of sale, price of sale and agency through whom these are sold are some of the factors which influence the net prices received by the farmers for their surplus vegetables. High transport and packing costs, malpractices by the middlemen and existence of a large number of intermediaries reduce the producer's share in the consumer's rupee.

Vegetables marketing create more problems compared to other farm products as they have a high degree of perishability, bulkiness, existence of large number of middlemen in their trade due to low capital requirements and are grown mostly by the small and marginal farmers. The middlemen manipulated the situation by offering low prices to the growers under the pretext of low demand falsely rejecting the produce as sub-standard. Sometimes, the vegetables also get accumulated in particular areas due to climatic conditions resulting in glut. Growers then make distress sale and get substantially low prices in addition to wastage of a large quantity of the produce. On the other hand, this causes acute shortages in other areas and forces the consumers of such areas to pay a higher price. The prices of vegetables are generally much higher in the mandies than in their growing areas due to both high marketing costs and high margins of the middlemen. As such, the interests of both producers as well as consumers are poorly served with the existing system of vegetable marketing.

Under the above perspectives, a case study is adopted to assess the marketing efficiency of vegetable products and to induct it to micro level. Therefore, an attempt is made to discourse on "Marketing Problems of Selected Vegetable Crops: A case study of Matia Community Development Block".

Objectives of the Study

To achieve the broad objectives of assessing the marketing problems of vegetables, the present paper selects the following specific objectives.

1. To estimate the marketing cost and margins of tomato, brinjal and ash pumpkin and
2. To work out the price-spread of these crops.

A Brief Note on Methodology and Data Base

As the objectives suggest, the present paper is an evaluation and descriptive type of research, based on both secondary and primary information. Secondary information were gathered from various published sources such as economic survey of the central and state government, Statistical Hand Book of Assam, books, journals etc.

Goalpara district of Assam has been selected for the study. The reason behind selection of the district is that vegetables play a significant role in the economy of the district. Out of

eight Community Development (CD) Blocks in Goalpara district, one block i.e, Matia CD block was selected for the study, keeping in view of its higher share of vegetables production around the district. From the selected block area, village Mamudpur was purposively selected. From the selected village a sample size of 60 households comprising of 20 farmers each of brinjal, tomato and ash pumpkin were randomly chosen. Besides ten numbers of market functionaries were interviewed to identify market channels and to gather information about the market process. Further, the collection points in the farmer's field and the market places were visited physically to observe the marketing process. The primary field data for the study area pertain to the agricultural year 2015-2016.

Some of the important marketing channels for brinjal, tomato and ash pumpkin are mentioned as follows:

Channel I: Producer- Consumer

Channel II: Producer- Retailer- Consumer

Channel III: Producer- Wholesaler- Retailer- Consumer

Marketing efficiency, price-spread and producer's share in consumer's rupee in marketing channels II and III have been calculated by using the following formula:

$$\text{Shepherd formula: ME} = \frac{V}{I} - 1$$

Where,

ME → Marketing Efficiency

V → Value of the brinjal, tomato and ash pumpkin sold as price paid by the consumer

I → Total marketing cost

Cr- Pf → Price spread

Consumer's price (Cr) → producer's price + marketing cost+ marketing margin

(Pf + Cr) 100 → Producer's share in consumer's price

Where,

Pf → Producer's price

Cr → Consumer's price

Results and Discussion

Working out of price spread of the selected vegetable crops bears significance for policy initiatives in enhancing efficient marketing process. Therefore price spread of the selected items are worked out and shown in table-1.

Table 1

Price-Spread of Consumer's Price in Tomato, Brinjal and Ash pumpkin marketing

Name of the functionaries	Tomato		Brinjal		Ash pumpkin	
	Channel II	Channel III	Channel II	Channel III	Channel II	Channel III
1. Net price received by the producer	568 (73.86)	568 (52.59)	668 (74.55)	668 (56.61)	768 (77.10)	768 (60.00)
2. Total marketing cost paid by the producer	32 (4.02)	32 (2.96)	32 (3.57)	32 (2.71)	32 (3.21)	32 (2.50)
(i) Transportation cost	2 (0.25)	2 (0.19)	2 (0.22)	2 (0.17)	2 (0.20)	2 (0.16)

(ii) Palledari	10	10	10	10	10	10
	(1.26)	(0.93)	(1.12)	(0.85)	(1.00)	(0.78)
(iii) Market fee	20	20	20	20	20	20
	(2.51)	(1.85)	(2.23)	(1.69)	(2.00)	(1.56)
3. Producer sale price/ wholesaler purchase price/ Retailer purchase price	500	500	600	600	700	700
	(62.81)	(46.30)	(66.96)	(50.85)	(70.28)	(54.69)
4. Marketing charges paid by the wholesaler	—	80	—	80	—	80
		(7.41)		(6.78)		(6.25)
(i) Transportation cost	—	15	—	15	—	15
		(1.39)		(1.27)		(1.17)
(ii) Octori	—	25	—	25	—	25
		(2.31)		(2.11)		(1.95)
(iii) Palledari	—	15	—	15	—	15
		(1.39)		(1.27)		(1.17)
(iv) Commission charges	—	15	—	15	—	15
		(1.39)		(1.27)		(1.17)
(v) Miscellaneous	—	10	—	10	—	10
		(0.93)		(0.85)		(0.78)
5. Wholesaler's margin	—	270	—	270	—	270
		(25.00)		(22.88)		(21.09)
6. Wholesaler's sale price/Retailer's purchase price	—	850	—	850	—	850
		(78.70)		(72.03)		(66.40)
7. Marketing charges paid by retailer	46	46	46	46	46	46
	(5.77)	(4.25)	(5.13)	(3.90)	(4.61)	(3.59)
(i) Weighing	8	8	8	8	8	8
	(1.00)	(0.74)	(0.89)	(0.67)	(0.80)	(0.62)
(ii) Transportation	10	10	10	10	10	10
	(1.25)	(0.92)	(1.11)	(0.84)	(1.00)	(0.78)
(iii) Palledari	12	12	12	12	12	12
	(1.50)	(1.11)	(1.33)	(1.02)	(1.20)	(0.93)
	9	9	9	9	9	9
(iv) Arhat	(1.13)	(0.83)	(1.00)	(0.76)	(0.90)	(0.70)
(v) Purchase tax	7	7	7	7	7	7
	(0.87)	(0.64)	(0.78)	(0.59)	(0.70)	(0.54)
8. Retailer's margin	250	184	250	184	250	184
	(31.40)	(17.03)	(27.90)	(15.59)	(25.10)	(14.37)
9. Retailer's sale price/ Consumer's price	796	1080	896	1180	996	1280
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Note: Figure in the brackets represents percentages to the consumer's price

Source: Field survey by the researcher

It is clear from the table-1 that producer's marketing cost which involves transportation, palledari and market fee etc. is work out to be Rs.32 per quintal showing 4.02 per cent, 3.57 per cent and 3.21 per cent of the consumer's price paid in buying tomato, brinjal and ash pumpkin from the farmer's field to the road head. At this place wholesaler brings the produce at the mandi after paying Rs. 80 per quintal for tomato, brinjal and ash pumpkin, which consists of 7.41, 6.78 and 6.25 per cent of consumer price as marketing charges. The retailers also pay some of the charges like transportation, weighing, palledari, arhat and tax in the market to the extent of Rs.46 per quintal for both channels of tomato, brinjal and ash pumpkin products, which are 5.77 and 4.25 per cent of tomato, 5.13 and 3.90 per cent of brinjal and 4.61 and 3.59 of ash pumpkin of the consumer's price in channel II and channel III, respectively. The table further reveals that the retailer's margin in the market is that 250 per quintal (31.40%) in channel II and Rs. 184 per quintal (17.03%) in channel III from the tomato produce. In case of brinjal and ash pumpkin products, the retailer's margins are 27.90 per cent in channel II and 15.59 per cent in channel III and 25.10 per cent in channel II and 14.37 in channel III, respectively. The retailer's sale the tomato, brinjal and ash pumpkin products to the consumer in channel III, at the rate of Rs. 1080, Rs. 1180 and Rs. 1280 per quintals leaving 52.59 per cent, 56.61 per cent and 60.00 per cent of the consumer's price paid for the producers.

Marketing costs, margins and marketing efficiency in tomato, brinjal and ash pumpkin marketing in the two channels are presented in table 2. It may be seen from the table that cost of marketing of tomato, brinjal and ash pumpkin are accounted to be Rs. 158 per quintal in channel III, which is higher than channel II. The marketing efficiency of tomato, brinjal and ash pumpkin are worked out with the help of Shepherd's Index Method, which shows that it is higher such as 2.43 per cent, 2.73 per cent and 3.04 per cent, respectively in channel II than that of 1.76 per cent, 1.93 per cent and 2.09 per cent, respectively in channel III. It may, thus, concluded from the table that channel II is the most efficient channel as compared to others.

Table 2

Marketing cost, Margins and Marketing efficiency of the Tomato, Brinjal and Ash pumpkin

(Rs./quintal)

Sl. No	Particulars	Tomato		Brinjal		Ash pumpkin	
		Channel II	Channel III	Channel II	Channel III	Channel II	Channel III
1.	Producer's share	568	568	668	668	768	768
2.	Wholesaler's margin	—	270	—	270	—	270
3.	Retailer's margin	250	184	250	184	250	184
4.	Cost of marketing	78	158	78	158	78	158
5.	Total costs and margins	328	612	328	612	328	612
6.	Retailer's sale price/ consumer purchase price	796	1080	896	1180	996	1280
7.	Net price received by the producer	568	568	668	668	768	768
8.	Shepherd's index of marketing efficiency	2.43	1.76	2.73	1.93	3.04	2.09
9.	Modified method	1.43	0.76	1.73	0.93	2.04	1.09

Source: Field survey by the researcher

The comparative analysis of price-spread and producer's share in tomato, brinjal and ash pumpkin marketing in channel II and Channel III is done with the help of results shown in table 3.

Table 3

Price-Spread and producer's Share in Different Marketing Channels of Tomato, Brinjal and Ash pumpkin

Sl. No	Particulars	Tomato		Brinjal		Ash pumpkin	
		Channel II	Channel III	Channel II	Channel III	Channel II	Channel III
1.	Producer's price	568	568	668	668	768	768
2.	Consumer's price	796	1080	896	1180	996	1280
3.	Price-Spread	328	612	328	612	328	612
4.	Percentage of price spread in consumer's price	41.20	56.67	41.20	56.67	41.20	56.67
5.	Marketing cost share in consumer's price in per cent	9.79	14.62	8.70	13.80	7.83	12.34
6.	Producer's share in consumer's rupee in per cent	73.86	52.59	74.55	56.61	77.10	60.00

Source: Field survey by the researcher

The table shows that price-spread in tomato, brinjal and ash pumpkin marketing is the same as Rs. 328 and Rs.612 per quintal in channel II and Channel III for each produce, respectively. This means that price-spread is higher in channel III, where wholesaler is involved in marketing of tomato, brinjal and ash pumpkin. The percentage of price-spread in consumer's price is also higher, which is 56.67 per cent for each produce in channel III. The proportion of marketing cost in consumer's price are 9.79 per cent, 8.70 per cent and 7.83 per cent, respectively in channel II and 14.62 per cent, 13.38 per cent and 12.34 per cent in channel III, which indicates that the marketing cost is higher in channel III due to having large number of intermediaries. The shares of producer in consumer's price are 73.86 per cent, 74.55 per cent and 70.10 per cent in Channel II and 52.59 per cent, 56.61 per cent and 60.00 per cent in channel III, respectively.

Conclusion

The present study of marketing problems of selected vegetable crops in Matia CD block leads to a logical conclusions that there exists a vast scope for increasing producer's share in consumer's price. Also by ascertaining the view of the farmer's, it was felt necessary to

strengthen the marketing cooperatives which can play a vital role in providing marketing facilities to farmers at their own level for efficient disposal of their products.

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Prospects and challenges of Horticultural crops in North-Eastern Region(NER) with special reference to Nagarbera Revenue Circle of Kamrup (Rural) District, Assam

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Abstract

Horticulture is one of the most important branches of agriculture which is the art or practice of garden cultivation and management. Horticulture has become an answer for the economic development of various states in India. It contributes more than 34 percent GDP of agriculture calls for technology-led progress under purview of agriculture and allied activities the share plan outlay for horticulture which was 3.9 percent during the Ninth Plan has increased to 4.6 percent during the Twelfth Plan. Globally, India is second largest producer of fruits and vegetables. Presently, horticulture has established its credibility in improving income through increased productivity, generating employment, nutritional security, poverty alleviation and in enhancing exports. Resultantly, horticulture has moved from rural confines to becoming a commercial venture.

The states in NER of India offer immense scope for exploiting the export potential of their horticulture products. These states have been producing substantial quantities of fruits and vegetables which have considerable potential for exports to the International trade in the coming years. However, these states have not been able to achieve much growth in this sector due to many inherent weaknesses such as lack of transport facilities, lack of awareness, entrepreneur ignorance, lack of post harvest management and poor marketing linkages. This paper tries to throw light on the prospects and challenges of horticulture crops in NER, with special reference to Nagarbera Revenue Circle of Kamrup (Rural) District, Assam.

Keywords: Horticulture, Employment, export and potential.

Horticulture is one of the most important branches of agriculture which is the art or practice of garden cultivation and management. The horticulture sector includes a wide variety of crops such as fruits, vegetables, spices, plantation crops, floriculture, medicinal and aromatic plants, cashew etc. which is recognized as an important sector for potential diversification and value addition in agriculture. At present, it has been recognized that growing horticulture crops is an ideal option to improve livelihood security, enhance employment generation, attain income and food security and increase income through value addition. Horticulture crops particularly fruits are now receiving increasing attention in view of its increasing commercial importance accentuated by quick transportation to vast internal market. India accounts for 10 percent of world production of fruits crops such as mango, banana, apple, pineapple, guava, papaya, Grapes, etc. account for the bulk of fruit production. In dry land areas Amla becomes popular.

After China, India ranks among the largest producers and leading exporters of flowers, fruits, and vegetables in the world and has an immense scope for improvement in the forthcoming years. Horticulture has become an answer for the economic development of various states in our country. It contributes more than 34 percent GDP of agriculture, which calls for technology-led progress. Under the purview of agriculture and allied activities, the share of plan outlay for horticulture which was 3.9 percent during the Ninth Five Year Plan has increased to 4.6 percent during the Twelfth Five Year Plan. Globally, India is the second largest producer of fruits vegetables.

Horticulture Production Scenario in India:

The annual upswing in horticulture has been fruit production which grows faster than that of vegetables. Grapes occupy the premier position in exports with 107.3 thousand tonnes valued at Rs. 1,086 crores in 2014-15. Other fruits which attain significant position in exports are banana and mango. The handbook published by Oxford University Press points out that significant progress has been made in increasing the area under horticulture crops resulting in higher production. Over the last decade, the area under horticulture crops grew by about 2.7 percent per annum and annual production increased by 7 percent it said, India's success in horticulture can be traced to small towns and districts. India has witnessed voluminous increase in horticulture production over the last few years. During 2013-14, the production of horticultural crops were about 283.5 million tonnes from an area of 24.2 million hectares. The production of vegetables has increased from 58,532 thousand tonnes to 168,300 thousand tonnes since 1991-92 to 2014-15 (2nd advance estimates). (J. S. Shivay and A. Rahal)

Horticultural Production Scenario in NER:

India's North-Eastern Region comprises eight states viz. Assam, Arunachal Pradesh, Meghalaya, Mizoram, Nagaland, Manipur, Tripura and Sikkim. The NER of India covers an area of 2.62 lakh sq. km which is 7.9 percent of total geographical area of the country. NER is highly conducive for the growth of the various horticulture crops. These states have been producing many such crops which have a very high potential for export markets in fresh and processed forms. Diverse agro-climatic condition ranging from the temperate to tropical, fertile soils and abundance of rainfall offered immense scope for development in the horticulture sector. The major horticulture crops of the region are potato, onion, sweet potato, among vegetables and tuber crops, ginger, turmeric and chillies among spices, banana, pineapple, orange, and other citrus fruits mango, litchi, jackfruits among fruits crops and coconut and

areca nut among fruit nuts. Other horticulture crops which are produced in the regions are cabbage, brinjal, cauliflower among vegetables etc.

Total production of fruits in the region is estimated about 23.35 lakh tones which only 5.1 percent of total production of the country. As regards production of vegetables, the contribution of the region is only 4.5 percent of the total production in the country.

The region has a huge potential of horticulture development both in terms of market expansion and production growth. The NER has the potential to be a major player in the emerging South East Asian Markets in view of its close proximity to those markets.

Assam due to its agro-climatic condition is traditionally a horticulture-based state. The major crops occupy 5.46 lakh hactars (14.2 percent) of the total gross cropped area of 38.43 lakh hactars. The major horticultural crops in the state are banana, pineapple, jackfruits, oranges, lemon, garlic, onion, coriander, potato and chillies plantation crops, medicinal and aromatic plants, bamboo and floriculture are also gaining significant expansion. The present study area i.e. Nagarbera Rev. Circle is also the same situation.

Study area at a glance:

Nagarbera is an administrative revenue circle. It is situated at the south-west corner of Kamrup (Rural) district of Assam. It extends in between 26.3" and 26.8" North Latitude and 90.57" and 91.4" East longitude. The Nagarbera Rev. Circle is bounded by the north by the Barpeta district and mighty Brahmaputra, on the east by Chamaria Rev. Circle, on the south by the Goalpara district and the NH-37, on the west by the Goalpara district and Simlitola Tea Estate. The river Jaljali and Karnoisuti are flowing through the middle of Nagarbera from the south to the north and fell into the Brahmaputra. The total area of Nagarbera Rev. Circle is forty two (42) sq. km. as per 2011 census. It contains an area of 81850 bigha 2 katha and 7lessa. It is revealed in the census report 2011 that out of the total population of 78342 in Nagarbera Rev. Circle 40177 were male and 38165 were female. The Nagarbera rev. circle has six gaon panchayats and twenty eight villages.

Economy of Nagarbera Rev. Circle is basically agrarian economy. About 80 percent of the total population is depended on agriculture directly and indirectly. Due to its agro-climatic condition is traditionally a horticulture based area. The major horticultural crops are garlic, onion, tomato, potato, coriander, chilies and lemons, medicinal and aromatic plants, bamboo and floriculture are also gaining significant expansion. After economic reforms since 1991, the picture has changed drastically. The contribution of the agriculture sector in national income has decline and the contribution of the service sector and manufacturing sector has increased significantly. As a result the employment opportunity has been rising continuously in the service and manufacturing based sector. Nagarbera Rev. Circle is not the exception. Uneducated and unskilled mass of Nagarbera population living in rural areas are not fitting into the employment market created by service sector growth. They therefore depend on agriculture for their livelihood. But the Nagarbera is a flood affected area and it offers a wide range of options to the farmers for crop diversification and provides ample scope for sustaining large number of agro-industries which generate huge employment opportunities. There are large no. of fruits and vegetables production in Nagarbera area, but during harvesting time prices are very low and the cultivators faces awkward position. So, cold storage and processed food units are very essential in this rural atmosphere.

Objective of the study:

The present paper focuses on the prospects and challenges of horticultural crops in NER with special reference to Nagarbera Rev. Circle.

Methodology:

This paper is based on both primary and secondary data. Secondary data was undertaken from various sources such as journal, magazine, and other sources. Internet scanning was also undertaken to collect relevant data. Primary data was also collected mainly from observation.

Prospects:

There are various prospects and opportunities in the horticulture sector such as resource prospects, entrepreneurial prospects, job opportunities, self-employment and export destination.

Resource Prospects:

Agro-industries are playing a very important role in the economy of Nagarbera. Bamboo has emerged as an important agro-produce with much industrial potentiality. Similar to this fruits and vegetables have shown huge industrial potentiality. Another important group of crops having a high potentiality are the mustar, ginger, turmeric, garlic, onion, and coriander etc. Chitranala also grows extremely well in some wetland of the study area. Proper utilization and management of these horticultural resources like bamboo, fruits, vegetables, spices etc. will be able to develop a good number of enterprises which in turn can generate sufficient employment opportunities.

Entrepreneurial Prospects:

The literacy rate in Nagarbera was not significant, especially when compared to the rest of Assam and all India level. The literacy rate in Nagarbera was only 49.66 percent in 2011 census which is much lower than Assam and all India level. So, uneducated and unskilled mass of the study area living in rural areas are not fitting into the employment market created by service sector. They are therefore dependent on agriculture for their livelihood. But large number of persons are employed in agriculture are disguised in nature. Disguised nature of agriculture forced the people to migrate them from rural to urban areas creating pressure on cities. This situation can be managed by generating employment opportunities for them in rural areas itself. Agro- entrepreneurship can be used as the best medicine for the solution of this problem. If we develop the entrepreneurship in horticulture then we will solve the following problems: (a) reduce the burden of agriculture, (b) generate employment opportunities for rural youth, (c) control migration from rural to urban areas, (d) increase income of the study area, (e) support industrial development in rural areas, (f) reduces the pressure on urban cities.

Job opportunities:

There is an immense scope for hopeful quality education in various state agricultural universities. More recently the students aspiring higher studies in horticulture can take up their degree as specialization in floriculture, medicinal and aromatic plants, spices and plantation crops and post harvest technology. The job opportunities are accessible for the students within the country and even abroad. After graduation the students become eligible to be appropriate for employment offered by banks, finance sector, seed companies, sales and marketing etc.

Self-employment:

As horticulture consultant provides advice, design, evaluation, supervision of garden or orchard etc. One can start the agriculture clinic and govt. provides money (up to 10.00 lac) for

this venture. An educated horticulturist expert can raise commercial nursery of fruit plants, flower and ornamental plants, seed producer of vegetables and flower crops. Fruits/ vegetables/ flower grower, floral decorator, florist shop, horticulture services contractor, mushroom grower, seed dealer, proprietor cold storage, processing work of horticulture production and one can start establishing an institute for vocational education etc.

Export destination of Indian floriculture products:

Globally, more than 140 countries are involved in cultivation of floricultural crops. Among various countries Germany continues to be the highest consumer of Indian cutting flowers followed by Japan. India especially NER is having an enormous scope in the future. The two main markets for Indian fresh cut flowers are Europe and Japan. Together, the two markets (Europe and Japan) account for around 75 percent of Indian fresh flower export.

National Horticulture Board (NHB) was set up by Govt. of India in April 1984. The main objectives of the NHB are to improved integrated development of Horticulture industry and to help in coordinating, sustaining the production and processing of fruits and vegetables. With effect from 2014-15, the Mission for integrated Development of Horticulture (MIDH) has been operation by bringing all ongoing schemes on horticulture under a single umbrella.

Challenges: The NER has been producing many such products which have a very high potential for supplying to the export markets in fresh and processed forms. However, these states have not been able to achieve much growth in this sector due to many inherent weaknesses such as lack of transport facilities, lack of awareness and poor marketing linkages.

Though Assam has abundance of horticultural products, yet the growth of horticultural crops does not on commercial basis and only for personal consumption production. Although many of the challenges the horticulture is facing are location specific, some of them are common across the different horticultural crops of Assam and the study area.

However, a few prominent challenges that hamper the development of horticultural crops are discussed here:

Lack of post harvest management: It has been estimated that 37 percent of our highly perishable horticulture crops are wasted due to lack of post harvest management and cold chain infrastructure.

Low access to credit: One of the missing links is lack of adequate credit support to farmers, as it directly deals with accessibility of resources. Although micro-credit mechanism in agriculture has become popular, yet it does not influenced significantly.

Low base of skills and entrepreneurship: There is a paucity of skilled and trained professionals available for employment in the horticulture. An industry that sets up shop in the state may have to bring its own skilled workers, which may not be always be practical. Another reason for the lack of industry is the general risk averseness of Assam and the study area for various social and community reasons; they have traditionally preferred to invest surplus funds in fixed assets rather than in a business venture.

Access to Technology and Extension Support : Although many technologies were developed to help the farmers in horticulture, their awareness utility have not reached extensively in the field. Therefore, in order to educate rural workforce in the utilization of such technologies, MIDH should train the rural youth, and if required counseling can be organized periodically in the event of crop failure.

Poor Information on Market trend: The development of trade in the horticulture will depend upon the adaptability of the farmers with the wave of changing prices and demand in national and international market. And that totally will depend upon the open network of information of the farmers regarding this changing scenario. The openness in information is found to miss in this horticulture sector.

Inadequate facilities: Density of markets for fruits, vegetables and flowers is very low and facilities for storage g-downs and cold chain in the study area are inadequate.

Lack of physical infrastructure: There is an absence of supporting infrastructure in the study area. The lack of connectivity to outside markets and centers hinders the growth of horticulture in today's climate which relies on quick and easy communication. Due to lack of transport and marketing facilities, development of commercial crops like fruits, vegetables and spices etc. are still not remunerative.

Lack of adequate Research and Development activities: There is no adequate research and development activities initiated by the local entrepreneurs to develop their products. The govt. also has not shown much enthusiasm in this regard. No step has been taken for modern and updating of the quality of their products.

Conclusion:

Most of the people living in Nagarbera are of SC community and is the most backward rural area in Assam. Agriculture is the main livelihood of the people. With no industrial base, the unemployment is a major challenge which the Rev. Circle is facing. Moreover, the occurrence of flood causes huge damage to the agriculture produce of the study area. In such a situation where industrial base is nil, only self-employment activities undertaken by the people in various agro-based enterprises could play a major role. In this regard, micro finance through horticulture enterprises can play an important role on creation of self-employment in various agro-based micro enterprises. The concern departments and agencies can make a sincere effort for implementing employment programmes and schemes which the central govt. has recently initiated through horticulture to uplift the economic status of the rural poor people. Moreover, capacity building of various stakeholders will provide an environment for the establishment of micro enterprises among rural people through horticultural production movement.

The Ministry of Agriculture, Rural development NGOs and the corporate sector play an important role in ensuring a better market price for the growers. A sound post harvest handling technology through an established network of cold storage will be a boon for farmers and consumers. It is recommended that agro-horticulture processing industries are still vital for economic progress and emancipation of North Eastern Economy.

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