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Problems of Growth of Floriculture Business - A Study from Assam

Amarendra Kalita*

Department of Economics, Gauhati Commerce College, Guwahati-21, Assam, India

Research Article

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***For Correspondence**

Dr. Amarendra Kalita, Associate Professor, Department of Economics, Gauhati Commerce College, Guwahati-21, Assam, India.

E-mail: amarkalitagcc@gmail.com

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ABSTRACT

Floriculture is emerging as profitable business in many parts of the world. The USA, the Europe and Japan accounts two third of the floriculture trade of the world. The business is also growing in some states of India. Assam is a small state situated in the North Eastern Region of India. The states in this region have favorable factors for growth of floriculture business. The production and sale of flower is becoming a popular business in Assam and the North Eastern Region of India. Of course the floriculture business is still in the infant stage in this region. Hajo, a satellite town under Kamrup District has emerged as famous centre of floriculture businesses in Assam. Floriculture is becoming main occupation of some families in this Hajo area. In the survey conducted in 2016 in selected villages under Hajo Circle, it was found that floriculture business has good prospects in this North Eastern Region as whole and Assam in particular. It was also found that the farmers and sellers of flower and flower product face different types of problems in different stages. Flowers and flower made products have high demand in north eastern states including Assam. If the problems of farmers and sellers are addressed properly, floriculture can be developed as a good source of income in this region and thus the states can get relive from burning problem of unemployment. The present paper is an attempt to enquire about the problems faced by the farmers and sellers of flower and flower products.

INTRODUCTION

Flower has various uses. It is used for decoration and beautification of houses, halls, hotel, restaurants, marriage pandals and public functions. Flower is an essential item in Hindu temples. Flower has medicinal value also. It is used in the preparation of fragrance. Floriculture or Flower farming is a branch of Horticulture which is concerned with the production and marketing of flower. Floriculture crops include bedding plants, flowering plants, foliage plants or houseplants, cut cultivated greens, and cut flowers.

World floriculture business is increasing growing at the rate of 8-10% per annum amounting to be worth of US $60 billion. Europe, the USA and Japan together account two third of the world floriculture trade. Although, there is a long tradition of using flower in India, the share of the country is negligible in international market. During the last two decades, a number of floriculture units have been established in the country for production and export. But most of those units are located near to Mumbai, Bangalore and Delhi.

Floriculture can generate sustainable employment in rural India. Floriculture offers huge employment opportunities in both production and selling lines. Now states namely West Bengal, Maharashtra, Uttar Pradesh, Karnataka, Tamil Nadu, Andhra Pradesh are developing floriculture. Floriculture is found highly remunerative. It is not limited only to commercial production. It creates scopes for subsidiary agro-business like export/import, nursery and seed production organic manure production, and agro-industries like manufacturing of horticultural implements like drip & sprinkler etc.

Floricultural sector is experiencing rapid changes. Globalization and its effect on income have raised per capita consumption in most of the countries. Competition is also increasing in the world. New production centres are developing along with the traditional centres of production in USA, Japan, Italy, Netherlands, Columbia etc. Production is found increasing very quickly in Asian countries like India, China, Vietnam, etc. Production and export of these production centres are expected to grow.

Neo liberal wave of globalization aided by information and communication (ICT) revolution has compressed time and space drastically rural India. Assam has also been exposed towards global market economy. The cause of great concern is that in nation-

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al income and the level of living, there have been rural urban disparities during the 1980s and 1990s. The substantial increase in the share of rural non-farm sector employment is found minimum. The unemployment and agricultural backwardness are two biggest problems present day India/Assam. The "Look East Policy", now termed as "Act East policy" of Govt. of India is getting attention in the country. The North Eastern Region of India may become the gateway to south East Asia. The development of new businesses will be the actual solution to the problems like extortion, extremism, terrorism and unemployment that the region is facing. Therefore, the study of problems of growth of floriculture business is becoming important.

As far as domestic flower is concerned, the region is constrained by lack of peoples' awareness about its profitability as a business, lack of quality planting materials, weak infrastructural support, lack of post-harvest facility, lack of good markets, exploitation of middlemen, weak data base and absence of information on employment and income generation from different flower cultivation and export barriers. Majority of the flower farmers belong to small and marginal farmers' category, and face many problems in different stages. Therefore an attempt has been made to highlight these issues and identify the major problems faced by the farmers and and sellers of flower with the aim of developing floriculture business in the state of Assam, as well as in north eastern states of India.

REVIEW OF LITERATURE

There are some previous studies which have established that there are both prospects and problems of floriculture business in India. The previous studies have identified various problems of growth of floriculture. The researchers have also suggested some measures for the growth of the business. The North Eastern Region of India comprising eight states including Assam is comparatively backward than the main land of the country. Assam is the leading of the region. There are only few studies which have identified the problems in the way of growth of floriculture business in this region. Some literatures have been reviewed here with the aim to study the prospects of floriculture business as well as to identifying the problems of growth of the business in this backward region of India.

Choudhury and Raghaban [1] in reference to mushrooming of Orchid, mentioned about Guwahati market of Assam. They stated-"In India, the taste for orchids is new until about five years ago, there was almost no trade in cut flower orchids here. The few spikes that did make their way into domestic markets were mostly rejects from Singapore and Bangkok, bought cheap at Rs 3 to Rs 25 a stem, and shipped out in random dribbles by a motley brigade of air hostesses and opportunists who sold the spikes for about Rs 50 a piece to florists in India. The customer here then ended up paying anything between Rs 100 and Rs 200 for an orchid spike that was headed for the trash can in Singapore. Today, however, the scene is radically different. For a south Delhi flower boutique, earlier, 500 spikes a week was difficult both to access and sell; today 5,000 are too little. What's triggered this change is a clutch of commercial orchid farms that have mushroomed in Chennai, Kochi, Bangalore, Thiruvananthapuram, Mumbai, Pune and Guwahati." They pointed that the northeast is another case in point. A proverbial treasure house, its potential as a crucial commercial orchid-growing area has never been exploited. Barring a cymbidium farm in Arunachal Pradesh, there are no commercial orchid farms in the region. The Report (Times of India [2]) also explained the problems and prospects of Indian floriculture. The report said India's performance in floriculture is not up to its potential and there was enormous scope for improvement. The report (Telegraph [3]) said that the flower industry was all set to bloom in the city. Considering the growing demand of flowers in the state capital, the Agriculture Department of Assam had decided to execute a slew of projects to turn Guwahati into the floriculture hub of the region. The execution of the project to facilitate large-scale flower production had already been started at many places on the outskirts of the city, including Sonapur, Azara and around 25 villages under Hajo development block. The report used the remark of Govt. official as- "The project is meant to serve as a model to demonstrate the feasibility of commercial floriculture activity. The project, initiated with production of marigold, tuberose and gladiolus, is being implemented by the State Institute of Rural Development and the regional station of Assam Agriculture University at Kahikuchi". As per the Govt. record the project was showing good results and flower merchants here were buying the produce to supplement their import from Kolkata, Bangalore and Delhi to meet the increasing demand in the city. The model was being implemented in the Sonapur and Azara areas to minimize the import of flowers from other metros. The report of a survey conducted by the North Eastern Development Finance Corporation Limited (NEDFI) has revealed that the city imports flowers worth over Rs 2 crore every year from Kolkata alone. The department has launched the project so that the outflow of such a huge amount of money can be prevented. NEDFI said in its report that Guwahati was very suitable for cultivating of dendrobium, rose, chrysanthemum and anthurium because of the agro-climatic condition and availability of other infrastructure. The department was planning to bring more areas of the city under the project so that it could generate employment opportunities to many educated jobless youths.

Mudde [4] beautifully narrated the prospects of floriculture business in India in general and Karnataka in particular. It was said that floriculture offers careers in production, marketing, export and research. Jobs range from cultivation or growing flowers, to seed production, dry seed production, seed production, marketing, and decoration. The Report (Dawn [5]) expressed the value and appeal of any floriculture product or commodity through changes in genetics, processing or diversification. The report said profit potential is increased when an indistinctive raw commodity is converted into a unique product. As per the report, it requires more time, labor and skill than typically seen in farming operations. It was also said unstable prices for raw commodities; federal farm policies; changing consumer preferences; make more money by cutting out the middleman; increased profits; pride in a high quality product-important in changing economy; consumer preferences. The suggestion was for value addition in floricultural products through processing, packaging, and supply chain management so that farm incomes expand and employment is generated.

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It was said that this cannot take place without directed policy actions, given the complexity inherent in diversified farming activity and the difficulties connected with the linking of farms to relevant markets.

Prajapat [6] said "Open field cultivation is a good idea. The flower cultivation process must be clearly linked to the end user. There must be a clear chain of process like flower cultivation, storage, processing, product development and marketing. Most of the agricultural products are perishable in nature, with flowers being highly perishable. Open cultivation should be directly attached to the storage and processing unit." "In the open field cultivation, one must be clearly aware of the climatic condition. It is best suited in regions with minimum climatic variations, especially at the time of blooming. Flowers are the precious gifts of the nature that need extensive care. All the questions start and end with one problem: lack of proper training and guidance to the farmer. Risk minimization is very important for the open cultivation." Prajapat thus opined "Floriculture has great export potential and can bring in foreign reserve," Patwardhan [7] said "Cut flowers have good market potential. By exporting, cut flowers growers/ exporters can earn good foreign exchange reserve. Open cultivation flowers have short life span. So if we store them properly and use refrigerated vans for transportation, then we can increase their vase life." Patwardhan also said, though people sustained huge losses in floriculture in 1990's, things are improving and people are willing to try floriculture again. He remarked "I have provided consultation to farmers for rose cultivation under controlled environment like poly houses," Rao [8] opined, "Floriculture gives ample scope for economic development of farming community, and flower industry has very good prospects due to internal consumption and export potentiality." He also commented "Any farmer with a land holdings ranging from 5 cents to any extent can start floriculture depending on the marketing opportunities available in the nearby towns. If small and marginal farmers are going to take up cultivation of jasmine, crossandra, marigold, tube-rose, annual chrysanthimum and roses, besides others, they can earn their lively hood."

Dutta [9] reported on Floriculture of Karnataka and concluded that the state has tremendous growth potential of floriculture growth as climate was especially in and around Bangalore is ideal for flower. While other countries need artificial cooling facilities in summer days resulting high cost, our country need none. The report expressed floriculture in Karnataka was growing by leaps and bounds with Rs 7.5 crore worth flowers expected to be auctioned that year. Sudhagar [10] in his study in Hosur, Tamilnadu identified some factors which indicates vast opportunity of floriculture in India. In the SWOT analysis, he found a world market is growing where demand exceeds the supply, and the world demand is estimated to grow anywhere between 15 and 25 percent per annum. The study observed that due to intense cold, high energy cost, production in most of the European countries is limited during winter months where as in India most of the festivals fall during this period when the demand of flowers is at its peak. This raises the hope for growth of floriculture in India. Ali and Ghafoor [11] from their study revealed that variable of education, experience, floriculture area, and picking method; picking time and extension services had a significant impact on losses on farm level. They found significant effect of education and infrastructure on losses at a commission agent level. As per the study the determinants of post-harvest loss at the wholesale level were experience, loading method, and cold storage, transportation while education, unsold quantity, retailer type, kind of shop and storage place had a significant effect on losses at the retailer level. They suggested for proper training and scientific knowledge to traders regarding storage, grading, handling, displaying and processing of flowers. The study suggested for adopting a scientific approach to minimize these losses. Harisha, [12] observed various constrains of growth of floriculture. India shares a very small portion (0.41 to 0.55 Percent) to world floriculture compared to countries like Nederland (59 pc), Italy (6 pc), Columbia (10 pc), Israel (4 pc), Kenya (1 pc). The area under floriculture is also found comparatively low compared to those countries. The per capita consumption of flowers is also considerably low in comparison to developed countries like the USA, Western Europe and Japan. In spite of strong productive base, India's export of floricultural product is not so encouraging. The low performance is attributed to many obstacles such as non availability of proper space in the airlines, since most of the airline owners prefer heavy consignments. Mishra and Mishra [13] studied the prospects of floriculture in Odisha and concluded that "There is no doubt that Odisha has a huge potentiality for floriculture business. But till today it is in an evolutionary stage. Though agro climatic condition is suitable for flower cultivation and there is a growing demand for flowers in the state it is seen that neither the farmer nor the entrepreneurs of this business are able to get the advantage of the situation. The role of the state government is also not encouraging enough for flower cultivation. Considering the present status of the floriculture the government has initiated different steps for promotion of floriculture in the state which indicates that in the long run, more and more entrepreneurs will take this as a challenge. It is suggested that the state government should prepare a long-term strategy for floriculture so that not only the production capacity of the state for flower will increase but also much more will be interested in taking up floriculture as an entrepreneurial career."

De and Singh [14] studied the prospects of floriculture in the hill districts of India including Assam. It said "The hill regions of India including Himachal Pradesh, J&K, Uttarakhand and the North Eastern region (NE) comprising states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim and has been identified as a potential area for the development of floriculture owing to its diverse geo-climatic conditions and floral biodiversity. The existing flower crops in NE region include orchids, roses, lilies, bulbous ornamentals, bird of paradise, gerbera, marigold, tuberose, begonia, dahlia, etc. Out of 1331 species of orchids reported, 856 species are found in this region including rare and endangered species of other ornamentals also." The study analyzed state wise floricultural activities, infrastructure, marketing and transport facilities, constraints, opportunities and relevant strategies. The Constraints identified by this study are:

1. Lack of reliable database on floricultural crops

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2. Lack of uniform land tenure system and ownership right
3. Non-availability of quality seeds and planting materials
4. Necessary inputs like advanced technology, credit and transport facilities, fertilizers, pesticides, farm implements and tools and irrigations are not easily available to the growers at reasonable prices
5. Lack of adequate infrastructure facilities for quick disposal of the produce in the market,
6. Floricultural crops have not been included with the overall land use planning
7. Inadequate support to postharvest management including grading, storage, marketing and processing, 8. Poor extension and training efforts in the sector.

Devi [15] remarked that "In spite of export potential, the growth of Indian floriculture sector has not been encouraging. In fact the floriculture exports dropped marginally in value terms during the recent years. The industry is facing several problems at the production level. Unavailability of basic inputs and skilled manpower for harvesting and post-harvesting techniques and pirated seeds and planting material has the woes of the flower producers. Inadequate cold chain management is not only affecting the future of floriculture but also having a negative impact on it. At the marketing stage, major problems are related to product diversification, differentiation, vertical integration and innovation, quality and environmental issue. Organizing logistics is also becoming a critical factor for the flower exporters." She suggested that product diversification and value addition like extraction of oil, pigments, production of dry flowers need to be encouraged. Some more agro export zones need to be introduced by India Govt. for promoting export of floriculture. Another suggestion was for adoption of modern techniques with future sight. It was expected that the floriculture growers and exporters would definitely overcome the challenges and obstacles in the Indian floriculture industry in future.

The findings of the studies covered here indicates that this business can be developed in the North Eastern Region of India as there is high demand for flower and flower made products among the people. If the problems are addressed properly the region in general and the state of Assam can flourish in this field.

METHODOLOGY AND DATA SOURCES

Both primary and secondary data have been used in the paper. The secondary have been collected from the existing sources like Floriculture and Horticulture department, Directorate of Agriculture, Assam and published and unpublished sources (journals and reports etc.) and different websites.

The primary data have been collected from a survey conducted in selected villages under Hajo circle under Kamrup district. Hajo has been the centre of attraction for floriculture. In Hajo area many villages are developing floriculture as livelihood. The sample farmers were selected from the places where floriculture activities are prominent. A schedule of questions was used to collect data to know the socio economic background of the selected sample households, the economic background, the infrastructure available for the development of floriculture, the marketing facilities available, the government/departmental supports, problems faced in the way of production and business of floriculture. Data were collected from the traders, business houses and nurseries using another schedule of questions.

The selection of the study area and the sample was on the basis of concentration of area under flower farming. Flower farming is concentrated in the villages under Hajo and Sualkuchi circle under Kamrup district in Assam. Therefore, the samples have been collected from four villages-namely Kulhati, Abhaypur, Bordadhi and Satdala Bhoma under Hajo circle. All total 80 samples have been collected and analyzed. The period of data collection is October 2016 to December 2016.

The sources of secondary data are Statistical Hand Books of Assam, Directorate of Economics and Statistics, Govt. of Assam, Directorate of Horticulture and FP, Assam, Agriculture Department, Govt. of Assam, CMIE reports, Mumbai, NEDFI data bank, Guwahati, District Agricultural Officers of concerned districts, Chief Engineer of Engineering division, Department of Agriculture, Govt. of Assam. Besides, personal discussions and interviews were held with different knowledgeable farmers to get firsthand information of the production technique. The primary data have collected from the sample flower growers in the study area.

The computer software SPSS was used to analyze the data. The findings have been combined with available statistics and reports. Suggestions have been made on the basis of findings.

RESULTS

- Only a few varieties of flowers are grown in Assam.
- Floriculture is a new concept in the state and the average year of practicing it is 11 years.
- Use of flowers is mainly for garlands and decoration of functions.
- Large majority of farmers have not borrowed money for flower farming.
- A section of farmers only got training from Govt. agencies.

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- There are no adequate transport facilities for the farmers.
- The storage facilities is inadequate and the farmers don't avail the available facilities which results wastage of fresh flowers.
- Packing and planting is one major problem faced by the farmers.
- Farmers face many market related problems.
- Post-harvest losses of floriculture are a serious concern. Estimates show the loss is 20 to 35%.
- Other problems are- effects of flood, lack of irrigation, high cost, high cost of pesticides, fluctuation in price, shortage of labor, lack of land amount, lack of Govt. guidance etc.

DISCUSSION

Profile of the sample villages

Land is the most important assets for farming community. This determines the level of well-being of the family. In this context it is worthwhile to examine the land holding of the surveyed villages. It is found that in all the four villages land is used for double cropping. As a whole in four circles the cropping intensity is found to be 176%. It is obvious that cropping intensity of one particular area is determined by many factors such as, irrigation facility, input availability, extension services, transport and communication facility etc. To ascertain this logic we can discuss about the availability of such factors in the circles covered.

The existing irrigation facilities available in the four villages fall in the category of minor irrigation system. The source of water for irrigation is either underground reserves (i.e. ground water) or the flow from rivers. Ground water is harnessed through Govt. sponsored and privately owned Shallow Tube Wells (STW) as well as through publicly owned Deep Tube Well (DTW) systems. In the latter case water is flown to the farmer's fields from the site of the deep tube well through laid out narrow canals. River water is harnessed by means of publicly owned lift irrigation system (LIS) and poured to the fields through laid out narrow canals. It is seen that irrigation facilities in all the villages are grossly underdeveloped except Kulhati. As a whole in four villages the average rate of irrigation is equal to the to the state's average. Availability of irrigation facility in Kulhati and Satdala has impact in the cropping intensity.

In all the four villages, a smaller numbers of financial institutions are engaged in providing credit for agricultural and rural development. Electricity is one important input of modern agriculture/floriculture. Modern floriculture requires adequate electric power. Supply of uninterrupted electricity can change the whole situation. In the agriculturally developed states of our country, adequate power supply has been assured and machines are run by electric power. Use of electric power can reduce the cost of using machine. But in Assam as a whole the condition of electricity supply is very poor. In many places there is no electric supply and in the other places also the supply is very irregular. No household reported of using electric power in operating machines meant for irrigation. The communication facilities within the villages are far from satisfactory. The condition of Bordadhi and Abhaipur is comparatively better than the other two villages. Satdadala Bhomarbori and Kulhati villages are not well connected to the main market of flowers at Guwahati.

It is found that although the sample growers have used the implements like tractor, power tiller, Shallow tube well, bore well, pump sets and sprayers etc. still the flower production remains very traditional. Among the implements and machines tractor has greater use. Of course in all the villages tractors are used on hiring basis. Shallow tube well is also found in large numbers. Surprisingly the use of Sprinkler is totally absent in these villages which is said to be very essential for flower production and other horticultural products. It was reported that lack of finance is the main reason for not adopting modernized method.

Status of floriculture business in Assam

Types of flowers grown in Assam: Although different varieties of flowers are produced in the country a few variety of flowers are produced in Assam. The list of flowers produced in Assam is given in the **Table 1**. The Economics and Statistics department which is in charge of statistical data has not provided any information regarding floriculture. The flowers namely Canna, Jasmine, Tiger lily, Dahlia, Pansy, Daffodil, Iris, Daisy, Tulip, Oleander are not grown in Assam although it has high demand and profitability.

Table 1. Flower varieties produced in Assam.

Name of the flower	Local name	Name of the flower
Marigold Hibiscus	Narzi/Gandhai	Gerbera
Lily	Lily	Gladius
Water lily	Vetful	Bougainvillea
Lotus	Padum	Cosmos
Rose	Golap	Morning glory
Aparajita(* local name)	----	Mogra
Kathanda(* local name)	Parijat	Oleander

Source: Field study.

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Year of starting floriculture: The sample flower farmers took up floriculture cultivation at different points of time. Average year of starting is 11 years that means the practice of floriculture has become popular during 1995 to 2000. The farmers of Kulhati and Satdala Bhoma village started this culture comparatively earlier. The average years of stating this practice is 14 years in Kulhati and 12 years in Satdala Bhoma village. Some farmers of these two villages have reported of doing this business for last 25 to 30 years.

Uses of flowers: The sample farmers grew few varieties of traditional flowers. The total production of these crops was ultimately going for different purposes. The use of flowers was not confined to only single purpose. According to the farmers, the flowers would go for different purposes instead of single purpose. This is evident from **Table 2**. However, the use of flower for garland making and decoration in functions was most predominant with 25.45% of the respondents indicating the use of the flower for this purpose.

Table 2. Flower varieties produced in Assam.

Purpose	In per cent
1. Garland making and decoration in functions	25.45
2. Bouquet making and garland making	2.78
3. Decoration of god and decoration in functions	1.34
4. Paint making and garland making	3.37
5. Decoration of Gods and use in festivals	2.78
6. Decoration of gods	1.12
7. Garland making	13.89
8. Garland making and decoration of Gods	16.98
9. Adornment of hair by women	1.00
10. Perfumes making	0.67
11. Perfume making and garland making	4.23
12. Bouquet making	4.23
13. Marriage purpose and use in functions	12.69
14. Garland making, decoration in functions, marriage purpose	3.45
15. Marriage purpose and use in functions	4.67
16. Perfume making	1.35
Total	100.00

Source: Field study.

Borrowing for floricultural development: It is believed that highly remunerative crops such as flowers require huge capital. The farmers mobilize resources from various sources to meet this investment needs. But the finding shows that a large segment of this group had not borrowed any money. Only 5% farmers borrowed from banks, finance societies and relatives. As reported, 80% of the loans had already been repaid.

Benefits received by the farmers for floricultural development: The state government is extending certain benefits to the flower farmers. Trainings on methods of production and sales are also given to the farmers. Some of the sample farmers have availed such benefits and trainings. In respect of the training the farmers of Kulhati village gets more benefits from the government agencies. It is surprising to note that none of the farmers of Bardadhi village benefited from the government programme. This indicates the nonperformance of govt. department in respect of promotion of floriculture.

Problems faced by the flower growers

The area under floriculture is increasing in the state although it is concentrated in one district. The favorable factors for floriculture are present in the state. The climate of the state is suitable for flower production. The demand for flower is also increasing in the state. The rising per capita income of the people, highly remunerative nature have influenced the farmers to shift from low priced traditional crops to high valued flower production. However, required attention has not been given by the governments and its agencies to provide necessary infrastructural facilities for the development of the sector. The field level data about the various infrastructure facilities speaks about these shortcomings. These are coming in the way of development of floriculture and hampering the prospects of floriculture in the villages. The problems or the constraints perceived by the growers have been broadly classified under following heads.

Problems of transport: A good network of roads from the villages to the market places is very essential for the overall development of the villagers. It is equally important and necessary for the quick disposal of highly perishable flowers. But it was found **(Table 3)**, 12% of the sample farmers expressed that they have been deprived of approach road. Among the 9% indicated that the roads had not been metal planted. 62% of the samples have reported that they have transport problem. Among them, lack of vehicles and high transport costs were indicated as major problems. Only 17% of the respondent did not give any views on the problem.

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Table 3. Problems faced by the Growers regarding transport (in per cent).

Response	Kulhati	Abhaipur	Bordadhi	Satdala Bhoma	Total
No all season road	11.21	12.75	10.99	13.21	12.04
Road is not metal planted	7.57	6.87	9.01	10.99	8.61
Transport problem	60.89	56.78	55.67	73.99	61.83
No problem	20.33	23.6	24.33	1.81	17.52
Total	100	100	100	100	100

Source: Field study.

Problem of storage: Storage facilities are pre-requisite for maintaining the freshness of the flowers particularly the modern flowers. However, the flowers covered in the study are traditional varieties which don't require this facility, the reason being that the farmers grow only a small quantity and dispose them quickly. In the field study **(Table 4)**, no one farmers have reported of having such facilities.

Table 4. Problems faced by the Growers regarding storage facility (in per cent).

Response	Kulhati	Abhaipur	Bordadhi	Satdala Bhoma	Total
No storage	100.00	100.00	100.00	100.00	100.00
Inadequate storage	0.00	0.00	0.00	0.00	0.00
No pr problem	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	100.00	100.00	100.00

Source: Field study.

Cold storage facilities are very essential for the flowers to maintain freshness, quality, texture and life span of the flowers. However, none of the flower farmers had either possessed these facilities or the government has provided such facilities. Even then almost all the respondent were of the opinion that they don't require such facilities as they grew in small quantities and disposed it as quickly as possible. They were also of the opinion that such facilities in cooperative basis might help them to overcome price fluctuation **(Table 5)**.

Table 5. Problems faced by the Growers Regarding Cold storage (in per cent).

Response	Kulhati	Abhaipur	Bordadhi	Satdala Bhoma	Total
No cold storage	100.00	100.00	100.00	100.00	100.00
Inadequate facility	0.00	0.00	0.00	0.00	0.00
No pr problem	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	100.00	100.00	100.00

Source: Field study.

Packing and planting material problems: The sample growers' impressions on packing material availability indicated that a majority of the growers did not face any problem in all the four villages. **Table 6** shows 92% of the farmers have reported high cost of material as their problem. 5% reported that there is lack of improved material.

Table 6. Problems faced by the Growers regarding packing material (in per cent).

Response	Kulhati	Abhaipur	Bordadhi	Satdala Bhoma	Total
High cost	90.98	91.99	92.88	95.17	92.75
Lack of improved material	9.02	8,01	7.02	4.83	5.25
No pr problem	0	0	0	0	0
Total	100	100	100	100	100

Source: Field study.

Table 7. Problems faced by the Growers regarding planting material (in per cent).

Response	Kulhati	Abhaipur	Bordadhi	Satdala Bhoma	Total
Non availability of quality seeds	60.01	59.9	62.99	62.91	61.45
Non availability of planting material	7	5.1	3.01	5	5.03
High price	32.99	35	34	32.09	33.52
No problem	0	0	0	0	0
Total	100	100	100	100	100

Source: Field study.

Table 7 Shows that in case of planting material, majority of the farmer (61%) expressed non availability of quality seeds and improved varieties of planting material. A significant portion of these farmers (34%) have expressed that the prices of these were quite high.

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Market related problems (Marketing and market information): Regarding market information, it was found that the flower farmers have no adequate information about the market demand and price. About 20% of the sample farmers expressed this view. From the discussion it was found that the farmers get information from the fellow producers who visited the market on the previous day. This indicates that the growers were not getting day to day information about the prevailing demand in the market **(Table 8)**.

Table 8. Problems faced by the Growers regarding market information (in per cent).

Response	Kulahati	Abhaipur	Bordadhi	Satdala Bhoma	Total
Inadequate information	44.86	43.78	45.66	56.98	47.81
Information for limited market	5.14	6.22	4.44	3.02	4.75
Inadequate information and Information for limited market	16.29	18.9	19.11	25.97	20.03
No problem	33.71	31.1	30.79	14.03	27.41
No problem	100.00	100.00	100.00	100.00	100.00

Source: Field study.

With regard to market, the sample growers expressed single or combined constraints that they face in the market. The most prominent single constraint expressed was more commission followed by middlemen's problem and deduction of more charges **(Table 9)**. Some farmers have reported that delay in payment is another problem that they face.

Table 9. Problems faced by the Growers regarding market facility (in per cent).

Response	Kulahati	Abhaipur	Bordadhi	Satdala Bhoma	Total
More commission	33.64	32.98	32.87	40.45	34.96
Middlemen's problem	12	13.89	14.89	13.45	13.80
Delay in payments	16.87	15.01	15.90	12.23	15.22
Deduct more charges	13.9	8.78	10.76	8.67	11.02
Donot take consent	6.12	7.65	7.78	9.89	7.89
More commission and delay in payments	8.13	7.55	9.98	7.00	8.78
More commission, delay in payments and deduct more charges	9.34	8.69	7.82	8.31	8.33
Total	100.00	100.00	100.00	100.00	100.00

Source: Field study.

In the investigation about the retail trade it was found that the retail market is very much unorganized and there is no permanent set up of the market. The retail market is situated in the bank of the Brahmaputra near Sukreswar temple at Panbajar area of capital city Guwahati. The distance from the surveyed villages to the retail market is about 30 kms. The farmers sell their products in the road side and temporary sheds. The police personnel always disturb the farmers when they come to sell flower. The farmers (90%) sell their products individually. The problems regarding retail trades have been shown in **Table 10**.

Table 10. Problems faced by the Growers Regarding Retail Trade (in per cent).

Response	Kulahti	Abhaipur	Bordadhi	Satdala Bhoma	Total
Unorganized market	69.9	72.79	71.09	73.75	71.89
No permanent set up	15.1	12.11	13.91	11.25	13.09
No Govt. support	10	9.1	8.89	8.87	9.21
Lack of finance	5	6	6.11	6.13	5.81
Total	100.00	100.00	100.00	100.00	100.00

Source: Field study.

Other problems: The sample farmers have reported some other problems which they face in the field of flower production. They are

(i) Flood- Flood is a big problem for the flower farmers of the sample area. This problem is more acute in Satdala Bhoma area. Because of regular flood in this area the flower farmers incur great loss every year.

(ii) Problem of irrigation- Water is very essential for flower production. But in all the surveyed villages required irrigational facility is absent. There is no major and medium irrigation project in this surveyed area. The farmers use water at own cost. A few farmers have own pump set and Shallow tube well.

(iii) High cost of pesticides- A common problem of the flower farmers is the various diseases of the flowers. In most cases the flowers are damaged by pests. In that situation the farmers have no other way than to apply pesticides. But the price of the pesticides is very high. All most all the farmers have given this opinion.

(iv) Labor problem- another serious problem as reported by the farmers is the shortage of labour. The labor charge is also increasing.

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(v) Non response of the govt. towards the farmers problems- Although floriculture is becoming a rewarding business still the state govt. is not initiating positive approach towards the development of the industry. A large section of the farmers have also reported that the benefits offered by the concerned department are not distributed appropriately because of the narrow minded local leaders.

(vi) Shortage of land- It was observed that a large number of flower farmers have no land or having minimum land. In Abhaipur village the farmers have no sufficient land. In many cases the land area is not found suitable for flower farming. As a result the farmers are found more interested in trading, not in farming. As a whole the flower farming is a laborious job. These factors have raised the intensity.

(vi) Fluctuating price—The price of flower and flower items fluctuates frequently which is reported as a biggest problem. Majority of the farmers therefore urge for minimum price of flower.

CONCLUSION

The North Eastern Region of India comprising eight states including Assam is backward compared to the main land of the country. This region is identified as disturbed area of the country. Terrorism is going in the region for a long period. Separatist movement is also emerging in the region. In last forty years the state of Assam is passing through agitations and protest. Actually the root cause of all these problems is unemployment problem. Industrial development is not taking place and agriculture sector is also not improving. Therefore, alternative income sources are becoming essential. As there are required factors available in the states, floriculture can become important sectors. Floriculture can give livelihood to many farm families. The findings have proved that in income. If present problems are addressed scientifically, this sector will grow at high speed. Therefore the Government Departments concerned and Agricultural Universities of the North Eastern Region shall have to do more research in this area to identify the problems and solve those systematically. The floriculture business in India has prospects but at the same time, likely to face threats from developments taking place in other countries. Zambia, Zimbababwe, Malaysia, Morocco and Mauritius enjoy better climate like India. Kenya and Ecuador are producing quality flowers. The traditional flowers grown in open conditions, mostly by small and marginal farmers, may face threat from the imported flowers of high quality. Similarly, the modern flowers also may face threat, as our flowers are not as good as of other countries. Unless the quality of both the traditional modern flowers is not improved by providing better infrastructure facilities, India is not going to benefit from liberalized trade regime.

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