

A STUDY ON THE DEVELOPMENT OF HORTICULTURAL PRODUCT IN BIHAR

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Abstract : Horticulture refers to the art and science of growing fruits, vegetables, flowers and other plants for human food, non-food uses and social needs. India is the domicile for numerous horticultural crops of commercial significance. 30% of the India's GDP accounts from horticulture and provides about 37.1% of the total exports of agricultural commodities. In 2017-2018, approximately 306.8 million tones production have been estimated and shared about 33% of total agricultural production. Horticulture in Bihar is facing several challenges like, inadequate availability of planting materials, rein fed horticulture, dearth of market facility, post-harvest management, lack of processing facilities and insufficient trained manpower etc. The production and marketing of fruits and vegetables suffer from a number of constraints. Present paper provides a study on the development of horticultural product in Bihar. This study will be helpful to encourage researchers to advance the horticultural development with post-harvest management of the crops in India and other developing countries.

Keywords: Horticulture; processing facilities, agricultural production, rein fed, Bihar.

Introduction

Agriculture and allied sector plays an important role for the sustainable growth and development of the Indian Economy. Besides providing food to nation agriculture releases labor, provides savings, contributes to market of industrial goods and earns foreign exchange. India with its wide variability of climate and soil is highly favorable for a large number of horticultural crops. It is the fastest growing sectors within agriculture and considered the fruit and vegetable as a basket of the world. Over the years, horticulture has emerged as one of the potential agricultural enterprise in accelerating the growth of Indian economy. Its role in the country's nutritional security, poverty alleviation and employment generation programs is becoming increasingly important. It offers not only a wide range of options to the farmers for crop diversification, but also provides ample scope for sustaining large number of agro industries which generate huge employment opportunities.

Bihar is among the poorest and least urbanized states in India. It ranks at or near the bottom of the list of the major states by many economic indicators. To list the challenges that Bihar's agricultural sector faces would be, to some extent, to catalogue poor performance and a poor basis for future development. With around 90 percent of the state's population of reside in rural areas, and more than three-quarters of the workforce are employed in agriculture. The total population living in rural areas, agriculture as the primary feeder of rural economy continues to operate not only on margins of land but also on the margins of human enterprise, its productivity being among the lowest in the country. In 2003-04 the contribution of agriculture and its allied services sector to the state domestic product was 35 percent. Although this is a reduction from 48 percent in 1980, it remains among the highest shares in the country. In Bihar, Agriculture is at the core of state economy. So without increasing returns to these margins, not much can be done realistically to develop the agricultural sector. Thus, Agriculture continues to define both the potentialities and constraints to development in Bihar.

The origin of horticulture is intimately associated with the history of mankind. The word Horticulture is derived from two Latin words i.e., 'Hortus' means garden and 'Colere' means to grow or to cultivate. So it can be defined as the branch of agriculture concerned with intensively cultivated plants directly used by man for food, medicinal and for aesthetic purposes. Horticulture associated with four branches in which Pomology treat of fruits, Olericulture treat with vegetables, Floriculture with flowers and landscape development. With the growth of technology, modernization and changes in food habits of the people, the sector has undergone a major shift in the recent past and got a tremendous potential to push overall agriculture growth above the country's targeted 4 percent level. Horticulture refers to the art and science of growing fruits, vegetables, flowers and other plants for human food, non-food uses and social needs. India is the domicile for numerous horticultural crops of commercial significance. 30% of the India's GDP accounts from horticulture and provides about 37.1% of the total exports of agricultural commodities. In 2017-2018, approximately 306.8 million tones production have been estimated and shared about 33% of total agricultural production (Ministry of Agriculture, India). Historical report suggested that the growth rate of horticultural crop production accounted for 2.7% per year. This may be attributed to irrigational facilities, technological improvement, involvement of small and marginal farmers and better agronomic practice and improved varieties of seeds etc. However, horticulture in India is facing several challenges like, inadequate availability of planting materials, rein fed horticulture, dearth of market facility, post-harvest management, lack of processing facilities and insufficient trained manpower etc.

The production and marketing of fruits and vegetables suffer from a number of constraints. As a result, the farmers are deprived of the fair price of their produce. In order to remove the major constraints, the government has adopted various measures such as creation of infrastructural facilities for the marketing of fruits and vegetables, market promotion through advertisement, setting up of Quality Control Labs, Research & Development in identifying new techniques and practices including those for packaging. There are several State Plan Schemes and Centrally Sponsored Schemes in operation with the Department of Horticulture. The main aim of these schemes is to increase the production and productivity of fruits and vegetables and to improve the marketing system of these crops. Firstly, the state funded schemes are discussed and then centrally sponsored schemes are elaborated. Instead, this paper provides a study on the development of horticultural product in Bihar.

STATE SECTOR SCHEMES

1. State Horticulture Department: There exists a separate department of Horticulture for all round development of Horticultural crops. The horticulture department has well organized set up at sub divisional and district level to promote the activities.

2. Potato development scheme: There is a separate scheme for potato development in Bihar. Its main function is to provide technical know how to the potato growers. The department has been producing foundation seed from Breeder's seed in 27 hectares of land. Foundation seed so produced is being distributed to the progressive potato growers for producing certified tubers (seed potato) with financial out lay of Rs 49.55 lakh during 2008-09.

3. Strengthening and modernization of Plant Quarantine facilities: An assistance of Rs 3.31 lakh was provided during the year 2008-09 for strengthening and modernization of plant Quarantine in the state.

4. Chief Minister Horticulture Mission (CMHM): There are 38 districts in Bihar. Out of which National Horticulture Mission is in function in 23 districts for development of Horticulture. In remaining 15 districts, Chief Minister Horticulture Mission was in operation similar to that of National Horticulture Mission with financial outlay of Rs. 1366 lakh during 2009-10.

CENTRALLY SPONSORED/FUNDED SCHEMES

1. State Share of National Horticulture Mission: National Horticulture Mission (NHM) has been implemented for holistic development of horticulture. The NHM was started as 100 per cent Government of India's (GOI) programme during 2005-06. From the year 2007-08, the schemes have been changed to 85:15 ratio of GOI and state share. The main objective of mission is to double the area and production by 2011-12, post-harvest management, processing of fruit and vegetable; and proposal for the establishment of modern markets. Apart from this, there is also a provision of financial assistance for the establishment of Green-House, organic farming, strengthening of nurseries with infrastructure. An outlay of Rs.5100 lakh with 85 per cent as GOI's share and Rs.900 lakh as 15 per cent state share was provided for the Annual Plan 201011.

2. Crop Estimation Survey on Fruits and Vegetables; and Minor Crops: It is a staff scheme in which crop cutting experiments to assess the average yield are carried out in government as well as private orchards. Crop cutting experiments of kinnow, mango and potato crops are carried out. This scheme is run by two departments:

(i) Agriculture Department: An outlay of Rs.45 lakh was provided for the 11th Plan. No expenditure was incurred during 2009-10 due to shortage of staff. However, an outlay of Rs.4.30 lakh was provided for the Annual Plan 2010-11. **(ii) Horticulture Department:** An outlay of Rs.98 lakh was provided for the 11th Plan. Out of which an outlay of Rs.20 lakh was provided for the

Annual Plan 2010-11. **3. Rashtriya Krishi Vikas Yojna (RKVY):** Under this scheme, for the safe handling and marketing of fruits and vegetables, the plastic crates are provided on 50 per cent subsidy. Besides this, to encourage the cultivation of vegetables under Net-House and to improve economic condition of farmers, the financial assistance of Rs.40,000 per net house is provided by the Department of Horticulture, Punjab. An outlay of Rs.114 lakh was provided for the Annual Plan 2010-11. Out of which, Rs.40 lakh were meant for providing plastic crates, and Rs.74 lakh were for installing Net-Houses. **4. Micro Irrigation Scheme:** This is a central sponsored scheme implemented with the 40 percent share of central govt. and 50% share of state govt. Under this scheme 90% subsidy is given to the small and marginal farmer for installation of drip and sprinkler irrigation system. Micro Irrigation Scheme was under operation in all districts of the state with financial outlay of Rs. 3608.00 lakh during 2009-10.

These beneficiary schemes are implemented by the Department of Horticulture, Bihar to enhance the profitability of the growers by bringing improvement in the productivity, quality production and postharvest handling of horticultural produce on the one hand, and ensuring the supply of quality produce at affordable prices to the consumers on the other. National Horticulture Mission (NHM) is being implemented in Bihar to promote holistic growth of the horticulture sector covering fruits, vegetables, flowers, spices and aromatic plants.

1. To increase area under fruits, vegetables, flowers, spices & aromatic and medicinal plants.
2. To enhance the production and productivity of horticultural crops.
3. To create the infrastructure for infusion of modern micro propagation technology.
4. To develop marketing facilities.
5. To create storage infrastructure for perishable and non perishable produce.
6. To develop processing industry.
7. To facilitate proper market linkage.

STRATEGY

For achieving the targeted objectives the following strategies are being followed.

- Awareness building through extension and information dissemination on crop possibilities and market demand. The State Horticulture extension machinery as well as private sector extension will have a role to play.
- Quality planting material – grafts, gootees (air layers), seedlings, micropropagates - will be made available for orchard development – both through the Govt. machinery as well as through private sector participation. This will include seed material for tubers and spices, and certified seeds of vegetables and spices.
- Technical support services will be made available at the doorstep to farmers to ensure adoption of appropriate crop production and PHM technologies by farmers.
- The role of the private sector will be encouraged through contract farming arrangements. The State machinery as well as the private sector, through contract farming arrangements, will have a role in extension, supply of quality planting material and provision of technical support services.
- Organic farming in production of vegetables and spices will be encouraged. Since much of traditional horticulture in Bihar has relied on organic methods; the state has strength in this area.
- Since marketing has been identified as the primary constraints in development of the Horticulture sector, a well-coordinated strategy will be followed for development of marketing infrastructure and market linkages.

STRATEGY INTERVENTIONS

- In promoting area expansion, choice of crops and varieties will be geared to the market and to the needs of the processing units and exporters
- Development of market linkages through promotion of a chain of marketing operator viz. consolidators, traders, and commission agents will be attempted. For this purpose the necessary regulatory framework will be put in place through amendment of the APMC Act so that value chain is maintained.

- Establishment of appropriate Post Harvest Management Infrastructure will be accorded priority. While the private sector will be assigned primary role, the existing public sector agencies will also play a major role as catalyst.
- Market development will be based on a market study and a comprehensive Master Plan has been assigned to a consultant.
- For Improvement of the supply chain facilities for sorting / grading / packaging/ storage and transportation will be promoted. Provision will be made for development of collection centers and transportation to local markets.
- A chain of cold storages and a network of refer vans will be promoted at all important centers identified through the above study in the cooperative/private/ public sector.
- For exploiting Industrial / Urban markets of neighboring States, development of trade channels will be encouraged.
- Close link with APEDA for export promotion.

Summing-up

Fruits and vegetables are more prone to production as well as marketing problems compared to other agricultural commodities because of their basic characteristics of perish ability and bulkiness. The other constraints related to the production of fruits and vegetables are found to be attack of bacterial disease, use of traditional methods of cultivation, high cost of inputs, etc. In addition to these problems, farmers also face the marketing related constraints such as lack of proper infrastructural facilities like absence of cold stores, faulty method of sale, inadequate marketing intelligence, etc. The existence of large number of middlemen accentuates these problems. The government has launched various schemes, which are meant for increasing the production and yield of fruits and vegetables and for improving their marketing system. It is hoped that these schemes will help to achieve the goal of diversification of agriculture by encouraging the cultivation of fruit and vegetable crops but the success of these schemes depends upon proper implementation. Infact, adequate transportation facilities, a sound marketing intelligence system for the latest price information, organized co-operative marketing societies, proper auction/bid system for sale of fruits, government intervention in marketing in form of minimum support price, proper infrastructure facilities like cold storage, large sheds, parking facilities, proper lighting, pucca floors, etc. are the need of the day for boosting the fruit and vegetable production in Bihar.

References

1. Ashturker, B.M. and Deole, C.D. (1985). Producers' Share in Consumers Rupee: A Case Study of Fruit marketing in Marathwada, Indian J. Agric. Econ. 40: 3.
2. ASSOCHAM (2013). Horticulture Sector in India- State level experience. New Delhi: The Associated Chamber of Commerce and Industry of India.
3. Barratt-Fornell, A. and Drewnowski, A. (2002). The taste of health: nature's bitter gifts. Nutr. Today. 37: 144-150.
4. Joshi, P.K.; Gulati, A.; BIRTHAL, P.S. and Tewari, L. (2004). Agriculture diversification in South Asia: patterns, determinants and policy implications. Economic and Political Weekly, 39(24): 2457- 2467.
5. Kaul, G.L. (1997). Horticulture in India: Production, marketing and processing, Indian J. Agric. Econ. 52:3.
6. Kumar, M.P. (2012). A study on problems of marketing vegetables in farmers market. Int. J. Rural Dev. Manag. Stud. 6(1): 241-251.
7. Singh, M. (1985). Price spread of vegetables marketing, Indian J. Agric. Econ. 40: 3.
8. Singh, R. P. and Toppo, A. (2010). Economics of production and marketing of tomato in Kanke block of Ranchi district. Indian Journal of Agricultural Marketing. 24 (2):1-16.
9. Singh, Ram and Suhag, K.S. (2010). Role of state agricultural marketing board in marketing development in Haryana. Indian Journal of Agricultural Marketing. 24 (1):38-48.
10. Subbanarasaiah, N. (1991). Marketing of Horticultural Crops in India, Anmol Publishing Co., Delhi.
11. Economic Survey of Bihar, Govt. of Bihar, Various Issues.
12. Report of Agriculture Dept. of Bihar
13. Report from State Horticulture Mission, Dept. of Agriculture, Govt. of Bihar
14. Planning Commission, report of the Taskforce on medicinal plant in India
15. Department of Horticulture, GOB